Technical Bulletin

PAGE: 1/5

Model: Andromeda-P2		Date: 6	Jun-18	No.: RM0B1001
Subject: SP modification to change special characteristic v of the TIM-RED/MAG unit shading plates		ristic values	Prepared b	9 y : Hiroaki H Matsui
From: PP Tech Se	rvice Dept., 1st PP Tech Service S	ect.		
Classification:	□ Troubleshooting □ □ Mechanical □ □ Paper path □ □ Product Safety □	Part informa Electrical Transmit/rec Other (tion ceive) X	Action required Service manual revision Retrofit information Tier 2

BACKGROUND

The machines of the s/n on the attached list were installed with shading plates of the TIM-RED and TIM-MAG units of the <u>special characteristics values</u> at the factory because <u>the</u> <u>characteristics of shading plates used in these machines are special due to the parts</u> <u>limitation</u>.

NOTE:

The machines, whose characteristics of shading plates are special, are only in the 1st lot of mass production. Please refer to the attached list for the affected machines.

REQUEST

In case replacing the shading plate with a new one procured as a service part by some reason, check the machine s/n against the list of affected machines in the attached. If affected, change the SP setting as follows after replacing the service part.

PROCEDURE

When replacing the shading plate of the TIM-RED unit p/n: MOB17090 (SHADING PLATE: TURN: RED: ASS'Y):

Set SP1-**708**-001 to '-1' after making the replacement.

When replacing the shading plate of the TIM-MAG unit p/n: MOB17091 (SHADING PLATE: TURN: MAG: ASS'Y):

Set SP1-**701**-001 to '-1' after making the replacement.

RICOH	Technical	B ulletin	PAGE: 2/5
Model: Andromeda-P2		Date: 6-Jun-18	No.: RM0B1001
S/N lists of the Affe	cted Machines [1/4	4]	
For North America	1/1		
Andromeda-P2	a (M0B1-18 / Fusir	ng Section)	
(Total 7 machin	les)		
5018F320001			
5018F320002			
5018F320003			
5018F320004			
5018F420001			
5018F420002			
5018F420003			
Andromeda-P2	b (M0B2-18 / Fusir	ng Section)	
(Total 10 machi	ines)		
5028F320001			

5028F320002 5028F320003 5028F320004 5028F320005 5028F320006 5028F420001 5028F420002 5028F420003

5028F420004

RICOH	Technical	B ulletin	PAGE: 3/5
Model: Andromeda-P2		Date: 6-Jun-18	No.: RM0B1001
S/N lists of the Affe	cted Machines [2/4	4]	
For Europe 1/2			
Andromeda-P2	a (M0B1-27 / Fusir	ng Section)	
(Total 26 machi	ines)		
5018F340001			
5018F340002			
5018F340003			
5018F340004			
5018F440001			
5018F440002			
5018F440003			
5018F440004			
5018F440005			
5018F440006			
5018F440007			
5018F440009			
5018F440008			
5018F440010			
5018F440011			
5018F440012			
5018F440013			
5018F440014			
5018F440015			

- 5018F440016
- 5018F440017
- 5018F440018
- 5018F440019
- 5018F440020
- 5018F440021
- 5018F440022

RICOH	Technical Bulle	etin	PAGE: 4/5
Model: Andromeda-P2	Date: 6-	Jun-18	No.: RM0B1001
S/N lists of the Affected I	Machines [3/4]		
For Europe 2/2			
Andromeda-P2b (M0	B2-27 / Fusing Secti	on)	
(Total 14 machines)			
5028F340001			
5028F340002			
5028F340003			
5028F440001			
5028F440002			
5028F440003			
5028F440004			
5028F440005			
5028F440006			
5028F440007			
5028F440008			
5028F440009			

5028F440010

5028F440011

RICOH	Technical	B ulletin	PAGE: 5/5
Model: Andromeda-P2		Date: 6-Jun-18	No.: RM0B1001
S/N lists of the Affec	ted Machines [4/	/4]	

For Asia Pacific 1/1 Andromeda-P2a (M0B1-29 / Fusing Section) (Total 3 machines) 5018F460001 5018F460002 5018F460003

NOTE:

Andromeda-P2b (M0B2-29 / Fusing Section) has no affected machines for Asia Pacific.

Technical Bulletin

Model: Andromeda-P2		Date: 7-J	lun-18	No.: RM0B1002
Subject: Trouble shooting: Color reproduction and stability levels outside specification		ability fall to	Prepared b	y: Takuya Hirakawa
From: PPCS section department QAC	on CIP Product Quality Manageme	nt		
Classification:	□ Troubleshooting □ □ Mechanical □ □ Paper path □ □ Product Safety □	Part informa Electrical Transmit/rec Other (tion	Action required Service manual revision Retrofit information Tier 2

SYMPTOM

Color reproduction and stability may fall to levels outside specification.

CAUSE

Deflection of the paper occurs just beneath the TIM-Red scanner, causing a reading error to occur when main-scan shading or automatic calibration (which use the facedown path) are performed.

SOLUTION

Permanent:

The EFI patch will be modified (Release: TBA)

Temporary:

Create a dedicated paper setting using the following SP settings, and then use this setting when printing on to media brands that use main-scan shading and automatic calibration.

Note: These SPs are used to adjust the linear speed of the motor.

SP1-014-014	Set to: - 0.8 (%)
SP1-012-014	Set to: 0 (%)

Technical Bulletin

PAGE: 1/13

Model: Andromeda-P2		Date: 7-Jun-18		No.: RM0B1003	
Subject: Updating the Firmware of the Operation Panel			Prepa T. Satol	r ed by: H Matsui, h	
From: Sales Strategy Section, 1st CP Business Dep.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 □ Part info □ Electric □ Transm ⊠ Other (I 	ormation al it/receive nformation)	☐ Actio ☐ Serv ☐ Retr ⊠ Tier	on required vice manual revision ofit information 2

This bulletin provides a list of applications for the Jaguar operation panel along with the firmware/application installation and update procedures.

Updating the Firmware of the Operation Panel

Important!

DO NOT turn Off the power while updating the firmware.

Preparation:

Create an SD card for firmware update in the following procedure.

1. Download the update module "Jaguar System" from the Firmware Download Center. (ex. Pro C9200/C9210)

JaguarSystem	<u>GEN (all)</u>	M0BK1400G	Ver.1.03	2018/03/23	193,623 KB Download	ł
						-

- Execute the downloaded file. (ex. M0BK1400G.exe)
 A zip file with a filename consisted of the "part number + suffix.zip" will be created in the folder. (ex. M0BK1400G.zip)
 Do not unzip the file.
- 3. Copy the zip file to the root directory of the SD card.

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How to Update the Jaguar Operation Panel Firmware

IMPORTANT: Make sure the machine main power is turned OFF.

1. With your right hand, press and hold the "#" key and "STOP" button together as you turn On the main power switch with your left hand. Hold your fingers on the "#" key and "STOP" button.



2. Wait for the screen to turn white, and then release your finger from the "#" key and press the "START" button while still holding your finger on the "STOP" button.



3. Release your fingers from the buttons.

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- 4. In the screen below, select "apply update from sdcard" using the keys below.
 - STOP : Move up

•

• #

- START : Move down
 - : Select



5. Insert the SD card containing the Jaguar system firmware into the card slot at the lower right of the operation panel.





- 6. Select (ex. "M0BK1400G.zip") using the keys below:
 - STOP : Move up
 - START : Move down
 - # : Select



- 7. When the Install / sdcard ... screen appears, verify the updated version and install if the version is correct using the keys below.
 - STOP : Installation
 - START : Cancel

Version shown in the photo below is an example.



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- 8. Wait for the message "Install from sdcard complete." to appear at the bottom of the screen, and then select "reboot system now" using the following keys.
 - STOP : Move up
 - START : Move down
 - # : Select

reboo	t system no				
		adcard y reset tion artition ea w sdcard	-		
Curre Updat	nt version e version	: MOBK1401D_0 : MOBK1400E_1	0.54.1 L.00		
Conti OK CANCE Insta Insta verif	nue update? : Please L : Please lling syste lling recov lling boot ying system vieg recove	push Stop ke push Start k m ery ru	y. ey or # key.	-	
verif verif Insta coord oldke newke	ying recove ying boot ll end inate key y is . y is .				
Theta	11 from sdo	card complete	•		

Model: Andromeda-P2	
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Date: 7-Jun-18

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How to Install the Applications for the Jaguar Operation Panel

Note:

You can install or update multiple applications at a time.

Preparation:

Create an SD card for firmware update in the following procedure.

- 1. Download the updated application(s) from the Firmware Download Center.
- 2. Execute the downloaded file. (ex. M0BK1422C_forEDC.exe)

A zip file with a filename consisted of the "part number + suffix.zip" will be created in the folder. (ex. M0BK1422C_forEDC.zip)

>	M0BK1422C_forEDC >
	名前
	M0BK1422C_forEDC.zip
	M0BK1422C_forEDC_readme.txt

- 3. Create a folder named "app" in the root directory of the SD card.
- 4. Store the unzipped file in the folder "app."

Do not unzip the file.

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Installing Applications for the Jaguar Operation Panel

Note:

If the operation panel is rebooting, make sure to wait for the reboot to complete before starting the update procedure.

1. Press and hold the "Machine Status" and "State check" keys until the soft keys (shown in Step 2 below) appear on the screen.



2. Log into the SSP (super service program) mode.



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3. From [OPERATING SECTION INITIAL SETUP], select 'APPS.'



4. Select 'Install.'



The following steps 5 and 6 are needed only for the following two applications. To update these applications, depending on the version currently installed, they must be uninstalled and then installed of the new version. This is a limitation.

Application	Currently Installed Version	
Adjustment Settings for Operators	Older than 0.42	
Tray Paper Settings	Older than 0.56	

Skip steps 5 and 6, if the version currently installed does not meet the above condition.

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5. Select 'Uninstall.'



- 6. Press the "uninstall" button.
 - * The version shown in the screen below is an example.

LegacyUIData		0.28	uninstall	
jp.co.ricoh.advop.machinegraphicdata	MOB16019	0.06	uninstall	
Adjustment Settings for Operators	1004036256	0.40	uninstall	
Printer Status	MOBK1409B	0.39	uninstall	25
RemoteSupportService	14051/140	1.00	uninstall	
Quick Card Authentication Config.	MOBK1413B	100.04.01	uninstall	
Tray Paper Settings	MEDISAN	0.48	uninstall	
Application Site	MOBK1428	1.06.00	uninstall	
KerberosService	AND DESCRIPTION OF	0.05.00	uninstall	
A toner cartridge is almost empty. Mgen 1, Mgen 2			€	谷

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7. Insert the SD card containing the updated application(s) into the slot at the lower right of the panel.



8. From the [Install] menu, select 'Install from SD card.'



9. From the [Application Installer] menu, select 'Select except same version.'





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10. Select 'Install.'

Application	Install	er	1		_	-
Select all	Selec	t all without same ve	ersion	Remove check		Install
Name			Pa	rt Number	Installed	Version
Adjustment	t Settin	gs for Operators	M	08K1425F	1.02	
Tray Paper	Setting	s	M	LER YARAL	1.04	

11. Verify the message "Installation succeeded \cdots " appears on the [Installation result] screen and then press 'Panel restart.'



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How to Verify the Firmware/Application Versions

1. Select 'User Tools.'



2. Select 'Screen Features.'



3. Select 'Screen Device Settings Information.'





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4. Select 'Software Version List.'



5. Verify the version.

				Y1 C1 C1 Y2 C2 M1 K1	
				N2 K2	
	Software Name	Module ID	Part Number	Version	
	LegacyUIData		M0B16026B	0.28	
	Print Server Console	M2a_TFRConsole	MOBK1429A	0.13	
	Printer Status	M2a_PPTop	MOBK1409B	0.39	
	upport Plugin Proxi	M2a_USBCdPlugin	MOBK1416	100.01.01	
	on Config. Quick Car	M2a_QuickCdAuth	MOBK1413B	100.04.01	
	Remote Desktop	M2a_RDesktop	MOBK1411B	0.16	
	Remote Panel Operation	M2a_RemPnlOpe	MOBK1422A	0.13	
	RemoteConnect Support	M2a_RemAssist	D2411470A	1.0.5	
	RemoteSupportService	M2a_RemSptSvc	MOBK1410	1.00	
	Smart Device Connector	M2a_QRCode_SDC	MOBK1426	0.3.0	
	Standard IC Card Plugin	M2a_NFCPlugin	MOBK1415	100.02.01	
	Tray Paper Settings	M2a_PaperSet	MOBK1424J	1.04	
toner cartridge is a Igen 1, Mgen 2	almost empty.	চ 🕋			

Technical Bulletin

PAGE: 1/2

Model: Andromed	a-P2		Date: 7-Ju	n-18	No.: RM0B1004
Subject: Caution v	Subject: Caution when installing the operation panel			Prepa	red by: J. Ohno
From: Sales Strate	gy Sect., 1st CP Business I	Dept.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform Electrical Transmit/re Other (nation eceive)	Actio	on required vice manual revision ofit information 2

SYMPTOM

The attention light on the operation panel does not light in blue.

CAUSE

When attaching the rear cover of the operation panel the projection on the cover presses and breaks the resistor (squared in red below) for the blue LED.



SOLUTION

The projection on the rear cover of the operation panel will be modified of its shape to prevent contact with the resistor.





Cut-in s/n:

Model	Region	Product Code	Cut-in S/N
Andromeda-P2a	NA	M0B118	5018F520013 ~
Andromeda-P2b		M0B218	5028F520017 ~
Andromeda-P2a	EU	M0B127	5018F540007, 5018F540014 ~
Andromeda-P2b		M0B227	5028F540012 ~
Andromeda-P2a	AP	M0B129	5018F560008 ~
Andromeda-P2b		M0B229	5028F560005 ~

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Model: Andromeda-P2

Date: 7-Jun-18 No.: RM0B1004

Temporary Solution

Take note of the following points when attaching the rear cover of the operation panel at installation, to avoid breakage of the resistor.

 Make sure the two hooks at the bottom of the rear cover are hooked onto the panel (as mentioned on page139 of the FSM).





• Hold the bottom of the cover as you tilt the cover to match the screw holes.

IMPORTANT

DO NOT move or press the cover with force. If the cables inside the panel are sticking out, redo the procedure by releasing the hooks and sorting the cables.



Technical Bulletin

Model: Andromeda	-P2		Date: 7-Jun-1	8	No.: RM0B1005
Subject: Service Manual Correction: Recommended Ventilation Env.					red by: J. Ohno
From: Sales Strate	egy Sect., 1st CP Business D	ept.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part infor Electrical Transmit Other (rmation /receive)	Actio	on required vice manual revision ofit information 2

Ver.1.0 FSM described the recommended ventilation environment incorrectly as <u>'at least 50 m³/hr/person</u>', but this was corrected to <u>'at least 80 m³/hr/person</u>' in the ver.1.1 release (2018/5/17), in section:

Section 2. Installation > Installation Requirements > Environment (page. 78)

Temperature Range:	10°C to 32°C (50°F to 90°F)
Humidity Range:	15% to 80% RH
Ambient Illumination:	Less than 1,500 lux (do not expose to direct sunlight.)
Ventilation:	Room air should turn over at least 80 m ³ /hr/person
Ambient Dust:	Less than 0.10 mg/m ³ (2.7 x 10/6 oz/yd3)
4	

1. Avoid areas exposed to sudden temperature changes:

1) Areas directly exposed to cool air from an air conditioner.

2) Areas directly exposed to heat from a heater.

- 2. Do not place the machine where it will be exposed to corrosive gases.
- 3. Do not install the machine at any location over 2,500 m (8,200 ft.) above sea level.
- Place the main machine on a strong and level base. Inclination on any side should be no more than 5 mm (0.2").
- NOTE: The safety standards on ozone density prescribed by JACA (Japan Air Cleaning Association) is maximum 0.2mg/m³. However, the recommended ventilation according to RICOH standards is calculated based on half the value of this ozone density, to secure even further safety. '50 m³/hr/person' meets the JACA safety standards, but not the RICOH standards, thus the FSM requires correction.

REQUEST

The User Manual also contains information on recommended ventilation environment. Please print out the PDF file attached below and hand it to your customer at new site installs.

dromeda-P2		Date: 7-Jun-18	No.: RM0B1	005
Correction				
Operator's Guide / Mainte	nance and Management	Varilation		
Operator's Guide / Mainte Maintenance > General Re	nance and Management quirements > Dos and Don'ts >	• Ventilation		
Operator's Guide / Mainte Maintenance > General Re Correct	mance and Management quirements > Dos and Don'ts >	• Ventilation		
Operator's Guide / Mainte Maintenance > General Re Correct <error></error>	mance and Management quirements > Dos and Don'ts >	• Ventilation		
Operator's Guide / Mainte Maintenance > General Re Correct <error> • Ventilation should</error>	nance and Management quirements > Dos and Don'ts > be more than 50 m ³ /hr/per	• Ventilation son.		
Operator's Guide / Mainte Maintenance > General Re Correct <error> • Ventilation should <correction></correction></error>	mance and Management quirements > Dos and Don'ts > I be more than 50 m ³ /hr/per	• Ventilation son.		
Operator's Guide / Mainte Maintenance > General Re Correct <error> • Ventilation should <correction> • Ventilation should</correction></error>	nance and Management quirements > Dos and Don'ts > I be more than 50 m ³ /hr/per I be more than 80 m ³ /hr/per	• Ventilation son.		
Operator's Guide / Mainte Maintenance > General Re Correct <error> • Ventilation should <correction> • Ventilation should</correction></error>	nance and Management quirements > Dos and Don'ts > I be more than 50 m ³ /hr/per I be more than 80 m ³ /hr/per	• Ventilation son. son.		
Operator's Guide / Mainte Maintenance > General Re Correct <error> • Ventilation should <correction> • Ventilation should</correction></error>	nance and Management quirements > Dos and Don'ts > I be more than 50 m ³ /hr/per	• Ventilation son. son.		

Technical Bulletin

PAGE: 1/1

Model: Andromed	a-P2		Date:7-Jur	n-18	No.: RM0B1006
Subject: Troubleshooting: Back side of print dirtied with staple-like marks					red by: J. Ohno
From: Sales Strate	gy Sect., 1st CP Business I	Dept.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform Electrical Transmit/re Other (nation eceive)	Actio	on required vice manual revision ofit information 2

SYMPTOM

The back side of prints is dirtied with staple-like marks.

CAUSE

The surface of the Static Electricity Bias Roller (p/n: M0B16344), which is made of sponge, is adhered with sponge residues, because the process to remove the residues after smoothening the surface of the roller was falsely left out in the production line.



Affected Units

There are a total of 53 affected rollers, which cannot be traced. All were shipped to the spare parts center(s) as an independent part; none were installed in the machine or in the PTR unit at the factory.

SOLUTION

When replacing with a new Static Electricity Bias Roller (p/n: M0B16344) procured from the parts center, wipe the entire surface of the roller with a piece of cloth.

NOTE:

If wiped with wet cloth, make sure to dry the roller before installing.



The above solution will apply until we can assure all affected rollers have been consumed from the parts center(s).

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Reissued : 5-Nov-18

Model: Andromeda-P2 Date: 8-Jun-18 No.: RM0B1007b

RTB Reissue

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

Subject: Recovery SD Card Update Fa	Procedure for CRB-L/SC ailure	Prepared by: Hiroaki H Matsui	
From: Sales Stra	tegy Section, 1st CP E	Business Dep.	
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receive Other () 	 Action required Service manual revision Retrofit information Tier 2 Tier 0.5

Table of Contents

1.	Overview	. 2
	1.1 Overview	. 2
	1.2. When firmware update with the SD card results in a failure	. 2
	1.3. What you will need for the recovery	. 3
2.	Recovery procedure	. 4
	2.1. Machine status when performing the recovery procedure	. 4
	2.2. Connecting the USB-Blaster	. 4
	2.3. Rewriting the program with the recovery file	15
	2.4. Turning OFF the machine power	22
	2.5. Closing the doors	22
	2.6. Redoing the firmware update with the SD card	22

Reissued : 5-Nov-18

Model: Andromeda-P2	Date: 8-Jun-18	No.: RM0B1007b
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1. Overview

1.1 Overview

This document provides the recovery procedure to be used when updating the CRB-L (p/n: M0B15273) and SCU (p/n: M0B15261) of Andromeda-P2 using an SD card results in an error.

Location of the CRB-L and SCU boards on Andromeda-P2



1.2. When firmware update with the SD card results in a failure

A successful firmware update is notified by the operation panel displaying "Update done." However, if the update fails, the failure is notified with an error code SC (See FSM for detail on error codes.) Power cycling the machine OFF/ON will not resolve the error and the firmware update screen will not disappear until the firmware is successfully updated.



IMPORTANT

This bulletin originally announced that power cycling the machine OFF/ON will not resolve the error as in above, but it was found that **<u>power cycling does resolve the error in some cases</u>**. Therefore, before attempting the recovery procedure, power cycle the machine in the steps below and see if the error resolves.

- 1. Turn OFF the machine.
- 2. Close the door(s).
- 3. Turn ON the machine with the SD card remained inserted to the card slot.

Firmware download will automatically start in the rescue mode immediately after the power turns ON. Update process thereafter is no different to the normal firmware update process.

Technical Bulletin

Reissued : 5-Nov-18 Model: Andromeda-P2

Date: 8-Jun-18 No

No.: RM0B1007b

1.3. What you will need for the recovery

USB-Blaster download cable (p/n: M2059500)
 USB-Blaster is used for rewriting the ALTERA FPGA software. See website linked below for detail.
 https://www.altera.com/content/dam/altera-

www/global/en US/pdfs/literature/ug/ug usb blstr.pdf



• **Relay harness** (*p/n: D0A55390*) (Used only for CRB-L; unneeded for SCU.) Relay harness is used for connecting the USB-Blaster with CRB-L.



• PC installed with Quartus Prime Programmer (ver13.1 or newer) The programmer is used for rewriting the ALTERA FPGA software. Must be <u>ver13.1 or</u> <u>newer</u>.

Download Quartus Prime Programmer from the website linked below. https://www.altera.com/

NOTE:

If you already have an older version of the Quartus Prime Programmer installed on your PC, update it to version 13.1 or newer.

• Program recovery files

Please download the recovery files to your PC from GKM web site.

Answer ID: 257768

For CRB-L : AndCRBL.jic For SCU : AndSCU.jic

• Stubby screwdriver



Reissued : 5-Nov-18 Model: Andromeda-P2

Date: 8-Jun-18 No.: RM0B1007b

2. Recovery procedure

2.1. Machine status when performing the recovery procedure

The error can be resolved in either of the following two ways.

• Keep the machine power turned ON with the SD card remained inserted in the card slot and the error code displayed on the operation panel.

or

• Turn OFF the machine power. \rightarrow Remove the SD card from the card slot. \rightarrow Turn ON the machine power.

2.2. Connecting the USB-Blaster

To rewrite the software with the recovery file, the USB-Blaster needs to be connected to the board requiring the recovery. The procedure for connecting the USB-Blaster to the board is explained in the following sections.

CRB-L	: Section 2.2.1 (page 6~)
SCU	: Section 2.2.2. (page 11~)

Technical Bulletin

Reissued : 5-Nov-18

Model: Andromeda-P2	Date: 8-Jun-18	No.: RM0B1007b
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2.2.1. CRB_L

- 1. Connecting the USB-Blaster to the relay harness
- Connect pin-1 of the USB-Blaster to pin-1 of the relay harness connector. Make sure not to connect them upside down. Pin-1 of the relay harness connector is indicated with a triangle mark. Pin-1 of the USB-Blaster is indicated with a white line. The white line on the USB-Blaster and the brown relay harness will be in line when connected correctly.



Pic 1



Pic 2



Pic 3

Technical Bulletin

Reissued : 5-Nov-18

Model: Andromeda-P2	Date: 8-Jun-18	No.: RM0B1007b

- 2. Connecting the USB-Blaster to CRB-L
- Locate the CRB-L.





• **CRB-L of Andromeda is not installed on the drawer unit.** To access the CRB-L, use a stubby screwdriver and remove the metal cover plate (screw x2).



Pic 6



Pic 7

RICOH Reissued : 5-Nov-18

Technical Bulletin

Model: Andromeda-P2

Date: 8-Jun-18 No.: RM0B1007b

The picture below shows the CRB-L board removed of the cover plate.



Pic 8

The photo below shows the connector to where the relay harness connects.



Reissued : 5-Nov-18		
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• Connect the relay harness to CRB-L.

NOTE: If the relay harness cannot be connected smoothly to the connector on the board, do not attempt to connect it forcibly. Remove the board from the unit, connect the harness and re-install the board.





NOTE: Do not touch the DIP switches below. If the switches were accidentally changed by mistake, make sure to set all the switches to OFF.





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Closing the front door with the USB-Blaster connected

• Close the front door with the USB-Blaster connected to CRB-L.





• Close all doors including those of optional peripherals. Power cannot be supplied to the board if any doors are left open.

This completes the preparation for program recovery.

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2.2.2. SCU

For the SCU, the relay connector is unneeded. Connect the USB-Blaster directly to SCU.





- 1. Connecting the USB-Blaster to SCU
- Locate the SCU.







• Turn the lever counterclockwise and pull out the drawer unit to the fully extended position.



Pic 15

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• Remove the lever #1 from the guide plate and remove a total of eight screws #2~#9.



• Picture below shows the connector to where the USB-Blaster connects.



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Model: Andromeda-P2	

Pin-1

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 Connect pin-1 of the connector on the SCU with pin-1 of the USB-Blaster indicated with the white line.





Pic 18

NOTE: Do not touch the DIP switches below. If the switches were accidentally changed by mistake, make sure to set all the switches to OFF.

(There are any difference in pin numbers depend on the board version . Correct settings are all OFF in any version)


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- 2. Closing the drawer unit
 - Push the drawer unit back into the mainframe with the cover plate removed and turn the lever clockwise.
 - When pushing in the drawer unit, lay down the cable as shown in the pictures below, to prevent it from getting caught.



Pic 19



Pic 20

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- 3. Closing the front door with the USB-Blaster connected
 - Route the cable through the space between the drawer unit and door, and close the door.





Pic 21

• Close all doors including those of optional peripherals. Power cannot be supplied to the board if any doors are left open.

This completes the preparation for program recovery.

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No.: RM0B1007b

2.3. Rewriting the program with the recovery file

Prerequisites:

- Confirm that USB-Blaster is connected to the affected board and the machine power is turned ON.
- Confirm that your PC is installed with Quartus Prime Programmer v13.1 or newer.
- If this is the first time connecting a USB-Blaster to your PC, you must install the driver for the USB-Blaster. Manually install the driver by specifying the directory "usb-blaster." Select 32bit or 64bit according to your OS.

フォルダーの参照
ハードウェアのドライバーを含むフォルダーを選んでください。
▲ № コンピューター
🔺 🏭 ローカル ディスク (C:)
🔉 .Xilinx
a 🛺 altera
Þ 퉲 13.0
4 퉲 13.0sp1
⊳ 🌆 ip
🎍 logs
Implementation in the second secon
⊳ 퉲 nios2eds
🛛 🖟 qprogrammer
a 🌗 quartus
⊳ 퉲 bin
⊳ 퉬 bin64
> 퉬 common
> 🕒 cusp
a 🐌 drivers
i386
> 🌗 sentinel
⊿ 🐌 usb-blaster
₩ x32
📔 🔒 x64

RICOH Reissued : 5-Nov-18

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Model: And	dromeda-P2				Date	: 8-Jı	ın-18		No.:	RMC	B1007	'b
1. Start th	e programm	er and the	en conn	ect the	USB-	Blas	ter to	your	PC.			_
🐌 Quartus II Progr	rammer – [Chain1.cdf]											×
<u>File Edit View Pro</u>	ocessing Options Help											-
Hardware Setup	USB-Blaster [USB-0] to allow background program	ming (for MAX II device	es)	Mod	e: JTAG		~	Progress:	[
Start	File	Device	Checksum	Usercode	Program/ Configure	Verify	Blank- Check	Examine	Security Bit	Erase	ISP CLAMP	
Stop Auto Detect Add File Change File Add Device Add Device Down	K				BIT							<u>></u>
X Type Message												
System Proces	sing /\ Extra Info /\ Info	/\Warning /\Critica ation:	l Warning /\Err	or / Suppresse	ed / Flag /					V	Locate	



Reissued : 5-Nov-18

Model: Andromeda-P2 Date: 8-Jun-18 No.: RM0B1007b

2. In the window below, click "Hardware Setup."

٩	Quartus II Progr	ammer – [Chain1.cdf										
Eile	e <u>E</u> dit <u>V</u> iew P <u>r</u> o	ocessing Options <u>H</u> elp										
6	🔔 Hardware Setup	USB-Blaster [USB-0]			Mode	JTAG		*	Progress:			
		allow background program	ming (for MAX II device	s)								
	Mu Start	File	Device	Checksum	Usercode	Program/ Configure	Verify	Blank- Check	Examine	Security Bit	Erase	ISP CLAMP
	Stop											
	Auto Detect											
	🗙 Delete											
	Add File											
	躇 Change File	<										>
	🔛 Save File											
	😂 Add Device											
	🜓 Up											
	Down											
×	Type Message											
Ð												
ges	<u><</u>		n									Σ
lessa	System Process Message:	sing / Extra Info / Info	/ Warning / Critical	Warning / Err	or / Suppressed	/ Flag					~	Locate
2	,											

3. Double-click USB-Blaster and click Close.

NOTE: If the connection fails, [USB-Blaster] will not appear under Hardware. In such case, disconnect and reconnect the USB-Blaster to your PC.

ų	Hardware Setup				
	Hardware Settings Select a programming hardware setup applik	JTAG Settings hardware setup to es only to the curre	use when prog nt programmer	ramming device window.	s. This programming
	Currently selected ha	rdware: No Hard items	Vare	Port	
	USB-Blaster		Local	USB-0	Remove Hardware
					Close

Technical Bulletin

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4. Click [Add file], select the program recovery file for the board requiring the recovery and click Open.

۲	Quartus II Prog	rammer – [Chain1.cdf]									
	e Ear Mew H	Decessing Options rep										
ا	🚠 Hardware Setup	USB-Blaster [USB-0]			Mode:	JTAG		*	Progress:	l		
Ľ	Enable real-time IS	P to allow background program	nming (for MAX II device	es)								
	Mart Start	File	Device	Checksum	Usercode	Program/ Configure	Verify	Blank- Check	Examine	Security Bit	Erase	ISP CLAMP
	Stop											
	🙀 Auto Detect											
	🗙 Delete											
	🗳 Add File											
l	🗁 Change File	<										>
	Save File											
	😂 Add Device											
	The Up											
	Down											
×	Type Message	2										
Ľ												
ages	System /\ Proces	ssing /\ Extra Info /\ Info	/\ Warning /\ Critica	al Warning /\ Err	or /\ Suppressed	/\ Flag /						<u>></u>
Mess	Message:		ation:								~	Locate
												.:

Icon will appear as shown below.

										ocurent	uncru.com
ardware Setup	No Hardware				Mode: JTA	G		▼ Prog	press:		
able real-time ISP	to allow background program	nming when available	1								
⊌% Start	File	Device	Checksum	Usercode	Program/ Configure	Verify	Blank- Check	Examine	Security Bit	Erase	ISP CLAMP
B Stop	<none></none>	EP4CE115	00000000	005AAF41							
Auto Detect	C/USerS/Ny506766/	EPCQ64	66DAC632								
K Delete											
Add File											
hange File											
Save File											
dd Device											
1 ¹⁰ Ilo	EPCQ64										
U Down											
Down	\uparrow										
	-										
	EP4CE115										
	+										
ype ID	Message										
ype ID	Message										
ype ID	Message	-									

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5. Click [Add Device].



6. Select [Cyclone IV GX] and [EP4CGX22] and click OK.

Device family		Device name		
APEX20K		EP4CGX110		New
Arria 10		EP4CGX110CF23		
Arria GX		EP4CGX110DF27		Import
Arria II GX		EP4CGX110DF31		Export
Arria II GZ	-	EP4CGX150		•
Arria V	=	EP4CGX150CF23		Edit
Arria V GZ		EP4CGX150DF27	- 1	Demove
Cyclone		EP4CGX150DF31	= [Remove
Cyclone II		EP4CGX15		Uncheck All
Cyclone III		EP4CGX15BF14		
Cyclone III LS		EP4CGX15BN11		
Cyclone IV E		EP4CGX22		
Cyclone IV GX		EP4CGX22BF14		
Cyclone V		EP4CGX22CF19		
Enhanced Configuration Devices		EP4CGX30		
EPC1		EP4CGX30BF14		
EPC2		EP4CGX30CF19		
HardCopy II	-	EP4CGX30CF23	-	

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Model: Andromeda-P2 Date: 8-Jun-18 No.: RM0B1007b	Model: Andromeda-P2	Date: 8-Jun-18	No.: RM0B1007b
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7. Select the three checkboxes circled in red. The checkbox circled in green is selected automatically.

Edit View	Processing Tools Window	/ Help 🤜								Search	altera.com
ardware Setup	No Hardware				Mode: JTA	G		▼ Prog	ress:		
	Distance in the strength of the second	and a surplus of the surplus of the balance									
able real-time I	SP to allow background program	iming when available	•								
Start	File	Device	Checksum	Usercode	Program/ Configure	Verify	Blank- Check	Examine	Security Bit	Erase	ISP CLAMP
No Start	File Factory default enhance	Device EP4CE115	Checksum 005AAF41	Usercode 005AAF41	Program/ Configure	Verify	Blank- Check	Examine	Security Bit	Erase	ISP CLAMP
W Start	File Factory default enhance C:/Users/ny506766/	Device EP4CE115 EPCQ64	Checksum 005AAF41 66DAC632	Usercode 005AAF41	Program/ Configure	Verify	Blank- Check	Examine	Security Bit	Erase	ISP CLAMP

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Reissued : 5-Nov-18

No.: RM0B1007b Model: Andromeda-P2 Date: 8-Jun-18 8. Click Start to run the recovery program. Quartus Prime Programmer Standard Edition - [Chain1.cdf] File Edit View Processing Tools Window Help Hardware Setup... USB-Blaster [USB-0] Enable real-time ISP to allow background programming when available File Device Checksum Usercode Program/ Configure Verify Blank-Examine Security Bit Erase ISP Start CLAMP Check **V** Factory default enhance... EP4CE115 005AAF41 005AAF41 1 Stop 1 C:/altera/CRB/CRB_v... EPCQ64 3B69DD34 1 EP4CGX15 <none> 00000000 <none>



9. Confirm the progress bar displays [100% (Successful)].

	1		-					
Hardware Setup	US8-Blaster (US8-0)	Mode:	JTAG	*	Progress	25	0% (Succes	ssful)
Enable real-time 15	P to allow background program	ming (for MAX II and M	WX V devices)					
alla Start	Fie	Device	Checksum	Usercode	Program/ Configure	Verify	Blank- Check	Examin
ulli Stop	Factory default enhanced Ci/altera_programme	SAGXF81H4 EPCQ256	02882FFF 3FA074FF		2	192		8
Auto Detect								
3% Delete								
Add File								
Change Pile	¥[]		in .			- 11		
Sele file								
Add Device	7200000							
ful	EPCQ216							
1 - 00	P. 21.							
\$% Down	t t							
		12						
	TO:	1						
				3				
				×.				
Type ID	Message	148 US - 8						
209021	Performing CRC ver	ification on a	ievice(s)					
205011	anonenerst berro	cases operation	in San 08	10:16:59 20	14			
209011 () 209061	Ended Programmer o	peration at m						

Technical Bulletin

Reissued : 5-Nov-18 Model: Andromeda-P2

Date: 8-Jun-18 No.: RM0B1007b

2.4. Turning OFF the machine power

- Turn OFF the machine power, open the front door and disconnect the USB-Blaster / relay harness from the board.
- Reinstall the cover plate.
- If the recovery procedure was performed with the SD card removed, insert the SD card into the card slot.



m0h2d5301

2.5. Closing the doors

Pic 22

Close all doors.

2.6. Redoing the firmware update with the SD card

Turning ON the machine power will automatically restart the firmware update that resulted in the failure. After confirming proper update, turn OFF the machine power and remove the SD card from the card slot. The firmware will be updated the next time the machine power is turned ON.

NOTE: Do not open the doors during the update, or it will fail.



Reissued: 24-Jul-18

Model: Andromed	da-P2		Date: 13-Jun-18	No.: RM0B1008a
RTB Reissue The item in bolo	l italics were correcte	ed or added.		
Subject: Notice re	egarding Density Differend	ce Printing: Across Feed	Prepared	by: J. Ohno
From: Sales Strat	egy Sect., 1st CP Busines	ss Dept.		
Classification:	Troubleshooting Hechanical Paper path Product Safety	Part information Electrical Transmit/receive Other (information)	Action re Service Retrofit i	equired manual revision nformation

FSM Correction

Please correct the screen shot of the Main-scan Shading (Density Difference Printing: Across Feed) in the following section of the FSM:

Execute

4. Replacement and Adjustment > Around the Drum > Attaching the New PCU > Main-scan Shading (p.735)

Incorrect:

						×	10 PORC
ain Scan Shading							
01 Machine: image Position							
02 Machine: Image Guality		Select Tray I	or Test Print		Tray 1		Test Printing
05 Machine: Paper Feed/ Output							
04 Machine: Productivity		K: Light	2	1	4 5	5	7 Derk
05 Machine: Maintenance							
06 Finishing: Finisher	(C: Light	1 2	1	1 1	6	7 Dark
		M: Light		;	? ;	6	7 Derk
		Yi Light		ţ	? ;	+	7 Dark
orrect:							Execute
DIFFECT: strment. Settings for Operators settings have been charged or updated, press [Apply].	۳.		Reset		🗸 Αρρίγ		To Print
DIFFECT: stment Settings for Operators settings have been changed or updated, press (Apphy).		To reduce ima	Reset	iff. vertic	Appl)	hts ppr o	To Print f min.
DIFFECT: stiment Settings for Operators settings have been charged or updated, press (Apply). 1 Machine: Image Position 2 Machine: Image Quality		To reduce ima 279mm wide/ setting and ex	Reset nge density d imin. 420mm wecute printi	iff. vertic long, in ng. Adjus	Appl) ally, set 18 si the tray. The tment will re	hts ppr o n select (To Print f min. 6 for slider ast 2 sheets.
brite		To reduce im 279mm vide/ setting and en Select Tray fo	Reset age density d imin. 420mm kecute printi ar Test Print	iff. vertic a long. in ng. Adjus :	Appl) ally, set 18 si the tray. The tment will re Tray 2	hts ppr o n select o effect to l	To Print f min. 6 for slider ast 2 sheets. Test Print
Strent Settings for Operators settings have been changed or updated, press [Apply]. Achine: Image Position Achine: Image Quality Achine: Paper Feed Output Achine: Productivity		To reduce im 279mm vide setting and er Select Tray fo	Reset inin. 420mm kecute printi ar Test Print	iff. vertic long, in ng. Adjus : (Apply ally, set 18 si the tray. The treent will re Tray 2	hts ppr o n select (fliect to l	To Print f min. 6 for slider last 2 sheets. Test Print
Street Settings for Operators tetting: have been changed or updated, press (Apply). Achine: Image Position Achine: Image Quality Achine: Paper Feed Output: Achine: Productivity Achine: Productivity Achine: Molitersance:	F	To reduce im 279mm wide setting and er Select Tray fo K: Light	Reset age density d tmin. 420mm wecute printi ar Test Print 1 2	iff. vertic long, in ng. Adjus : [3	Apply ally, set 18 si the tray. The tment will re Tray 2	hts ppr o n select o effect to I	To Print f min. 6 for slider ast 2 sheets. Test Print 7 Dark
Street Settings for Operators tettings have been changed or updated, press (Apply). Achine: Image Position Achine: Image Quality Achine: Paper Feed Output: Achine: Productivity Achine: Productivity Achine: Multiteruance Fisishing: Frishing:		To reduce ims 279mm vide/ setting and er Select Tray fo K: Light C	Reset nge density d min. 420mm wecute printi or Test Print 1 2	iiff. vertic long, in ng. Adjus : : :	Apply ally, set 18 si the tray. The treent will re Tray 2 4 s	hts ppr o	To Print f min. 6 for slider last 2 sheets. Test Print 7 Dark
Street Settings for Operators street Settings for Operators attings have been changed or updated, press [Apply]. Achine: Image Position Achine: Image Quality Achine: Paper Feed Output: Achine: Productivity Achine: Productivity Achine: Moliterunce: Fisibling: Fisibler Fisibling: Stacker		To reduce ims 279mm wide setting and er Select Tray fo Light C: Light	Reset age density d min. 420mm secute printi or Test Print 1 2 1 2	iiff. vertic a long, in ng. Adjus : : : 3 3	Apply ally, set 18 si the tray. The tment will re Tray 2	hts ppr o n select (flect to l 6	To Print f min. 6 for slider ast 2 sheets. Test Print 7 Dark 7 Dark
Structure Structure		To reduce im 279mm wide setting and e Select Tray fo K Light C Light H: Light	Reset age density d min. 420mm secute printi ar Test Print 1 2 1 2 1 2 1 2	iiff. vertic along, in ng. Adjus : : : : : : : : : : : : : : : : : : :	Appl) ally, set 18 si the tray. The transmitted for the transmitted for the tray 2	hts ppr o n select ti fliect to 1	To Print fmin. 6 for slider asi 2 sheets. Test Print 7 Dark 7 Dark 7 Dark
Survent Settings for Operators settings have been charged or updated, press (Apply). Machine: Image Position Machine: Paper Feed Output Machine: Paper Feed Output Machine: Productivity Machine: Productivity Machine: Finishing: Machine: Stacker Density Difference Printing: Across Feed		To reduce im 279mm vide/ setting and er Select Tray fo K: Light C: Light H: Light Y:	Reset uge density d min. 420mm kecute printi x Test Print 1 2 1 2 1 2 1 2 1 2	iff. vertic tiong, in ng. Adjus : :	Apply ally, set 18 si the tray. The treent will re Tray 2 4 5 4 5 4 5	hts ppro	To Print fmin. 6 for stiller last 2 sheets. Test Print 7 Dark 7 Dark 7 Dark

The screen shot shown in the FSM is incorrect, because the FSM was created based on a pre-mass production unit.

Also, the name 'Main-scan shading' was changed to 'Density Difference Printing: Across Feed' and is listed at the very bottom as number 10.



Reissued: 24-Jul-18

Model: Andromeda-P2

Date: 13-Jun-18 No.: RM0B1008a

NOTICE regarding [Density Difference Printing: Across Feed]

The explanation about the **[Density Difference Printing: Across Feed]** function that appears on the operation panel shows incorrect recommended values. (The explanation is of Leo-C2/P2 which is also implemented of this function.)



Incorrect:

The recommended value for K/C/M/Y is described as '6' (while the illustration of the slider bar shows 5 and 3).

Correct:

The recommended values are as follows: '5' for K/C/M, '3' for Y, which are also default values.

Technical Bulletin

Reissued: 24-Jul-18

Model: Andromeda-P2	Date: 13-Jun-18	No.: RM0B1008a
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REQUEST

Do not change from the default value if there is no problem with the output image density.

Information

- 1. The incorrect description will be deleted from the explanation in the updated firmware, which is <u>scheduled for release in Oct, 2018</u>.
- 2. The explanation provided in the 'Notes for Users' document is described of the correct recommended values, as follows:

Notes for Users > Additional information 6 (page.5)

Density Difference Printing: Across Feed

Adjust the unevenness of density in the printed image across the feeding direction.

The in-line sensor detects unevenness of density on the printed test pages, and the machine compensates for the unevenness with a high degree of accuracy.

 Load white paper of A3 size or larger into the paper tray. About 20 sheets of paper are required to perform adjustment.

Setting Items	Description	
Select Tray for Test Print	Select a paper tray loaded with paper.	
	Press [Test Print] to print a test page.	
	Press [Execute] to execute the function.	

 Use the slider to specify the tone to prioritize adjustment per color. To adjust all tones in wellbalanced manner, perform the adjustment in the default values.

Setting Items	Default Value	Max. Value	Min. Value	Increment	Unit
к	5	7	1	1	-
С					
м					
Y	3	7	1	1	-

• The tone indicated by the value of the slider is as follows. When unevenness appears in the highlights, specify a smaller value. When it appears in the shadows, specify a larger value.

Slider	(Light) 1	2	3	4	5	6	7 (Dark)
Tone value	30%	38%	45%	53%	60%	68%	75%

Technical Bulletin

PAGE: 1/2

Model: Andromed	a-P2	Date:	13-Jun-18	No.: RM0B1009	
Subject: Notificatio Feed	on: Setting for Density Differ	Prepared I	by: J. Ohno		
From: Sales Strate	gy Sect., 1st CP Business I	Dept.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receiv Other () 	ו e	Action re Service n Retrofit ir	quired nanual revision Iformation Tier 0.5

FSM correction

'Success' and 'Error' was made clearer in the table describing the DEMS/DSC execution results in the following section of the FSM:

7. Detailed Descriptions > Process Control > Result Codes > DEMS/DSC Execution Results Display Function (Page. 2666)

NOTE: No changes were made to the descriptions.

Background

It was reported from the field that it is hard to tell if DEMS/DSC execution resulted in a success or failure (in SP3-041-001/002/003 and SP3-046-001/002/003).

Currently:

List of DEMS/DSC Execution Result Codes

Code	Result	Description
0	Not executed	Factory default setting (SP default)
1	Success	-
2	Large phase shift	⊿P>P (max) *See the note below the table for details
3	Small amplitude	A <a (min)="" *see="" below="" details<="" for="" note="" table="" td="" the="">
4	HP sensor error	HP signal not detected within set time
5	M/A Max error	Toner deposition on drum: M/A Avg>M/A (max)
6	M/A Min error	Toner deposition on drum: M/A Avg <m (min)<="" a="" td=""></m>
7	Insufficient effective point	Effective points are 2 or less in the FCR calculation
8	Consecutive ineffective	Ineffective points are consecutive in the FCR calculation
	point	
9	Forced end	Forced end due to door open, power OFF, error, etc. (Set at start
		of execution)

Model: Andromeda-P2

Date: 13-Jun-18 N

No.: RM0B1009

<u> </u>	
Raviead	•
11641360	•

Code	Result	Status	Detail
0	-	Not executed	Factory default setting (SP default)
1	Success: DEMS / DSC control succeeded	-	_
2	Success: No control required by DEMS / DSC	Large phase shift Delta P > P (max) *1	Although DEMS controls inconsistencies in density in the cycles of the drum cycle, if cyclic variations do not appear due to other major factors, control is judged to be unnecessary and it ends.
3	Success: No control required by DEMS / DSC	Small amplitude A < A (min) *2	When variations in the cyclic density inconsistencies are minor, control is judged unnecessary and it ends.
4	Error: DEMS / DSC control failed	HP sensor error HP signal not detected within set time	These results codes indicate a problem with sensors and/or the engine itself and it is handled as an error that is out of control.
5	Error: DEMS / DSC control failed	M/A Max error Toner deposition on drum: M/A Avg > M/A (max)	These results codes indicate a problem with sensors and/or the engine itself and it is handled as an error that is out of control.
6	Error: DEMS / DSC control failed	M/A Min error Toner deposition on drum: M/A Avg < M/A (min)	These results codes indicate a problem with sensors and/or the engine itself and it is handled as an error that is out of control.
7	Success: No control required by DSC	Insufficient effective point Effective points are 2 or less in the FCR calculation	Since the number of effective points *3 is 2 or less, it is determined that control is unnecessary and the process is terminated.
8	Success: No control required by DSC	Consecutive ineffective point Ineffective points are consecutive in the FCR calculation	Since the ineffective point *3 is continuous in the main scan direction, it is determined that control is unnecessary and the process is terminated.
9	-	Forced end	Forced end due to door open, power OFF, error, etc. (Set at start of execution)

*1 Meaning of delta P>P (max): If the shift in phase (delta P) of the approximated sine wave exceeds the maximum value P (max) of the algorithm, control is judged to be unnecessary and DEMS does not execute (this is not an error).

*2 Meaning of A<A (min): If the amplitude (A) of the approximated sine wave is smaller than the minimum value A (min) of the algorithm, control is judged to be unnecessary and DEMS does not execute (this is not an error).

*3 For each detection point in the main scan direction, it is judged that the detection point where neither "large phase variation" nor "small amplitude" has occurred is the effective point and the detection point where either is occurring is the ineffective point.

Technical Bulletin

Model: Andromeda-P2		Date: 15-Jun-18		3	No.: R	M0B1010		
Subject: Important Notice Regarding Firmware Update Procedure			Prepa	red by:	Hiroaki H Ma	atsui		
From: Sales Strategy Section, 1st CP Business Dep.								
Classification:	☑ Troubleshooting □ □ Mechanical □ □ Paper path □ □ Product Safety □] Part] Elec] Trar] Othe	informa trical Ismit/ree er (ation ceive)	Action Serv Retr Tier	on require ice manu ofit inforn 2	ed Jal revision nation Tier 0.5	

IMPORTANT NOTICE regarding firmware update procedure

for Andromeda-P2

The firmware update procedure for Andromeda-P2 is different from the predecessor Andromeda-P1.

- For Andromeda-P2, **DO NOT open any of the doors and DO NOT turn OFF the** machine power while updating the firmware.
- See the FSM: "5.System Maintenance Reference>Procedure>Update Procedure>Important. As mentioned here, the doors must be closed.

NOTE: Also, please correct the explanation in FSM here as below.

Make sure that all doors of the machine are closed when you update **all of the firmware for Andromeda-P2.** Also, do not turn the machine off or open any door of the machine during the firmware update (or FPGA data can be damaged and the related board (CRB-L or SCU) will need replacing).

 If any of the doors had been falsely open when attempted to update the firmware for CRB-L and SCU, a special procedure is required for recovery. Refer to bulletin #RM0B1007 for the recovery procedure.



Reissued: 24-Aug-18
Model: Andromeda-P2

Date: 22- Jun-18	No · BM0B1011a

RTB Reissue

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

Subject: Note on powering OFF the system after updating firmware			Prepared by: Hiroaki H Matsui
From: Sales Stra	ategy Section, 1st CP E	Business Dep.	
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receive Other () 	Action required Service manual revision Retrofit information Tier 2 Tier 0.5

Note on the procedure for powering Off after updating FW

Because the Andromeda-P2 is installed with the **Auto Color Diagnosis Unit**, the procedure for powering Off the system after updating firmware is different from the predecessor Andromeda-P1. Take note of the following points.

In case updating a set of firmware by inserting an SD card, which does NOT include the firmware for Auto Color Diagnosis Unit, to the service slot [A] on the controller box located at the backside of imaging section:



When the firmware update completes, first turn Off the Auto Color Diagnosis Unit by pressing the power switch [A] for 10 seconds, then, turn Off the printer power by pressing the main power switch [B] on the fusing section of the printer. If this procedure is not followed, the Auto Color Diagnosis Unit will be shut down forcibly and may cause damage to its hard disk.

PAGE: 1/2

Model: Andromeda-P2 Date: 26-Jun		26-Jun-18	3	No.: RM0B1	1012		
Subject: Troubleshooting front-to-back registration problems with Banner jobs			Prepa	red by: Hiroa	aki H Matsui		
From: Sales Strategy Section, 1st CP Business Dep.							
Classification:	☐ Troubleshooting □ ☐ Mechanical □ □ Paper path □ □ Product Safety □] Part i] Elect] Trans] Othe	nforma rical smit/rec r (ation ceive)	☐ Actio ☐ Serv ☐ Retr ⊠ Tier	on required rice manual re ofit information 2 X	evision n Tier 0.5

SYMPTOM

RICOH

Front-to-back registration is inaccurate with banner jobs enabled of real-time registration adjustment.

CAUSE

The size of the paper fluctuates due to moisture absorption. (See next page for detail.)

SOLUTION

Store the stock in an environment similar to the machine operation environment.

If that is not possible, take the following actions.

- Acclimate the stock over night without removing the wrap.
- Once unwrapped, complete the job as soon as possible.
- If the stock is left unused in the tray for more than one hour before running the job, remove about 10 sheets from the top of the stack and do not use those sheets.

Legend (See illustration on next page.)

	Paper
	Image of the front side
	Image of the back side
Fa	Leading edge margin of the front side
Fb	Trailing edge margin of the front side
Ba	Leading edge margin of the back side
Bb	Trailing edge margin of the back side
A	Shrinkage of the stock



Figure 4

Technical Bulletin

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neissueu: i/-Apr-19

Model: Andromeda-P2 (M0B1/M0B2)

Date: 28-Jun-18

No.: RM0B1013a

RTB Reissue

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

Subject: Troubleshooting: Paper Tray Lift Wire breakage			Prepared by: Takuya Hirakawa
From: PPCS section CIP FQM Department QAC			
Classification:	Troubleshooting	Part information	Action required
	🗌 Mechanical	Electrical	Service manual revision
	Paper path	Transmit/receive	Retrofit information
	Product Safety	Other ()	🖂 Tier 2 🛛 🗌 Tier 0.5

SYMPTOM

The tray lift wire may break.

CAUSE

The cable used to lift and lower the tray is worn out.

When the GW CTL receives a packet from the external network, it recovers from the STR mode to the Engine off mode. Then **TotalFlow Print Server** (Rigel CTL) commands the paper catalog synchronization with communication between the Rigel and the GW CTL. After that, the GW CTL shifts again to the STR mode, and repeats recovering from the STR mode each time a packet is received, so that the number of lifting operation increases and the tray wires are worn out.

SOLUTION

Permanent

Apply the micro code of version 3.4.001 or newer

Temporary

Until a permanent solution is released, set SP5-191-001 to a value of "0".

Note: This will keep the GW CTL from shifting to STR mode, which in turn reduces the wear on the cable.

IMPORTANT:

- Replace all four tray cables at once, even if only one is broken.

Technical Bulletin

Reissued: 17-Apr-19

Model: Andromeda-P2 (M0B1/M0B2)

Date: 28-Jun-18

No.: RM0B1013a

Cut-in serial number

Model code	Model name	Cut-in serial number	
M52501	Rigel Std. Andromeda-P2 NA	5089L100001 -	
M52502	Rigel Std. Andromeda-P2 EU	5089J110001 -	
M52503	Rigel Std. Andromeda-P2 AA	5000D100001	
M52504	Rigel Std. Andromeda-P2 CH		
M52541	Rigel Std. Andromeda-P2 HDM-NA	5089L100001 -	
M52542	Rigel Std. Andromeda-P2 HDM-EU	5089J120006 -	
M52543	Rigel Std. Andromeda-P2 HDM-AA	5080D100001	
M52544	Rigel Std. Andromeda-P2 HDM- CH		

Technical Bulletin

PAGE: 1/3

Model: Andromeda-	P2 (M0B1/M0B2)		Date: 11-Ju	I-18	No.: RM0B1014
Subject: Troubleshooting: White spots in depressed/concave portions on surface of textured media.				Prepared by	: Takuya Hirakawa
From: PPCS section	CIP FQM Department QA	С			
Classification:	Troubleshooting	Part inform	nation	Action re	quired
	Mechanical	Electrical		Service r	nanual revision
	Paper path	Transmit/r	eceive	🗌 Retrofit ir	nformation
	Product Safety	Other ()	🛛 Tier 2	Tier 0.5

SYMPTOM

White spots (toner not transferred) in depressed/concave portions on surface of textured media.



CAUSE

Insufficient or excessive paper transfer voltage for textured media

SOLUTION

Adjust the paper transfer output or paper transfer pressure. See **PROCEDURE** below.

PROCEDURE







PAGE: 3/3



Model: Andromeda-P2

Date: 10-Augl-18

No.: RM0B1015a

RTB Reissue

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

Subject: Troubles direction	shooting: Innaccurate image	Prepared by: Hiroaki H Matsui	
From: Sales Stra	ategy Section, 1st CP E		
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receive Other () 	 Action required Service manual revision Retrofit information Tier 2 Tier 0.5

SYMPTOM

Image scaling in sub scan direction (feed direction) fluctuates especially with Weight 7 or heavier stocks.



CAUSE

High image coverage (lots of toner) causes slippage between the paper and the PTB (paper transfer belt).

SOLUTION

1. Update the Engine, GW and Media Library firmware to the versions listed below

Engine firmware	Ver 1.14:12 (M0B15160D) or newer
GW firmware	
System	Ver 1.03 (M0B16021G) or newer
Animation	Ver 1.01 (M0B16026F) or newer
Paper Setting (for EDC)	Ver 2.00 (M0BK1424L_for EDC) or newer
MediaLibrary	Ver 3 or newer

- 2. Select a media entry indicated with the suffix '_RA' from the media library or set Advanced Settings #1331-02 and #1229-01 to the 'For troubleshooting' values described in the table below.
 - For entries with the suffix '_RA', the default value of the PTB Speed and Transfer Pressure were modified to prevent the above symptom.
 - Note the possible side effects of Color registration shift and Grainy image when applied of the following revised settings.

Advanced Settings	Default	For troubleshooting	
#1331-02 PTB Speed	0%	0.5%	
#1229-01 PTB Pressure	0	3	



	, la la la loca octa igo					
	#1331-02	#1229-01	(
	PTR speed	Transfer Pressure	(
Weight 7	0.5%	3	_			
Weight 8	0.5%	3	_			
Weight 9	0.5%	3				

No.	Pape	er Nam	e/Paper Type		Paper Size	Paper Weight	
000	2 color copy coated silk 135gsm / Plain Paper				SRA3	105.1 - 163.0	gsm
۹	Searc	h	🗄 Paper Ide	entification + Add M	lew	Master Library	Jump to Row 🦼
	No.		Paper Name	Paper Brand	Paper Size	Paper Weight	=
	1107		Plain Wt.7	_RA			
	1108		Plain Wt.8	_RA			
	1109		Plain Wt.9				
	1110		Gloss Wt.	8 RA			
	1111		Gloss Wt.	9 RA			
	1112		Matt Wt.7	_RA			
	1113		Matt Wt.8	_RA			
	1114		Mondi Col	_rva or Copy Silk 300a	sm RA		
	1115		Mondi Col	or Copy Gloss 35	Dgsm		

NOTE:

MediaLib Ver.3 contains media entries modified of the PTR Speed and Transfer Pressure settings, which are indicated with the suffix '_RA.' Selecting these entries will automatically set the PTR Speed and Transfer Pressure to the settings described in Table 1.

* 'RA' stands for Registration Adjustment.



Fig.2

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Model: Andromeda-P2

Date: 10-Augl-18

No.: RM0B1015a

Fig.1



<text>

Fig.3

Fig.4

Advano Advar #1214 Pap	iced Settings⊷ er Transfer Output	Ease Check / Online	Auto Adjus	st Image Position	Settings
+11 Mucha	Receivering Constitute Advancement Care	Paper Woght Paper Thickness	NEX1 - 2200 gave	From Ney, Adjusts image position induces to paper 1 Frombitus Ney, Adjusts birth sees, aligns taxt uso out-in 2 code print. Set pager in Edg. and princ (Au	n i saled print. I mage to ficed In Adjacement]
100 Has Imp Densy TOU Impe Tamle Densy		Paper Type Custed Paper Type	Pan figer	Fort Sale Reportation 11Steelts	Auto Addatement
* Understande land.	tr ster	0 Paper Calar	when	Rund & Back Registration (2059erth) Test Print (Point) TURentital	Auto Adjustment Pres
in the second se		+ Presected	Sct.Preparchet	3 Test Part (hart & Back) Tähertai	Pag
N Set 4		P + Apply Daples	105		
16. Sold M. * Utilizing basis basis basis to state		Repty Auto Paper Se	lect. 196		
 Utilige Technical Technic Par Thr. 		A land a land of the land of t	haller.		

Why is it not required to change the Transfer Timing Roller speed (even though you're changing the PTR speed)?

You do not have to change the Transfer Timing Roller speed (#1331-01), because you are instructed to increase the PTR Transfer Pressure (#1229-01). Increasing the PTR Transfer Pressure decreases the line speed and counterbalances the different speeds between the PTR and transfer timing roller.



Table 2

	Advanced Settings #1331-02 PTR Speed Range					
	Min Max					
Weight 7	- 0.3%	1.2%				
Weight 8	- 0.3%	1.2%				
Weight 9	- 0.3%	1.2%				
Extra heavy	0.6%	1.2%				







Model: Andromeda-	·P2 (M0B1/M0B2)	I-18	No.: RM0B1016		
Subject: Troublesho	oting: A ghost image at a p	Prepared by	r: Takuya Hirakawa		
From: PPCS section	CIP FQM Department QA				
Classification:	Troubleshooting	Part information		Action required Service manual revision	
	Mechanical				
	Paper path	Transmit/receive		Retrofit information	
	Product Safety	Other ()	🛛 Tier 2	Tier 0.5

SYMPTOM

A ghost image may occur at a pitch of about 310 mm in low-temperature, low-humidity environments (absolute humidity of about 3.5 to 5.0 g/m3).

CAUSE

A difference in potential of the OPC due to flowing-in of the primary transfer current occurs between image and non-image areas. Due to the potential difference on the OPC, a slightly light image pattern appears as the same image in the HT area at a 314 mm pitch (OPC cycle pitch) where a solid image or thick character was printed.

Note:

- It is likely to occur in an environment where the 2nd quenching lamp turns off (absolute humidity less than 5.0 g / m 3)
- The higher the development γ (the higher the absolute humidity), the lower the margin.
- It is likely to occur at an absolute humidity of about 3.5 to 5.0 g / m 3

SOLUTION

[#1. Action: For operators]

By adjusting the development γ , the image creation condition is adjusted to the area where no ghost image occurs.

[#2. Action: For technicians]

By changing the environmental classification of the 2nd quenching lamp lighting, the lamp turns on in a wider environment. As a side effect, uneven density image in HT areas may occur.

Before change: 2nd quenching lamp is turned ON in ML / MM / HH environments

After change: 2nd quenching lamp is turned ON in all environments



Model: Andromeda-P2 (M0B1/M0B2) Date: 25-Jul-18

No.: RM0B1016

Procedure



Note [*]:

As a side effect, uneven density image (streak along the paper feed direction) in halftone area may occur. When it occurs, refer to the following troubleshooting in the service manual.

[Troubleshooting> Image Quality>] Black streaks along the paper feed direction in halftone areas]

Technical Bulletin

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Model: Andromeda-P2 (M0B1/M0B2)

Date: 25-Jul-18

No.: RM0B1016

Absolute humidity conversion table

Abso	lute	Relative Humidity (%RH)													
Hum (g/m	idity 13)	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	10	1.41	1.88	2.35	2.82	3.29	3.77	4.24	4.71	5.18	5.65	6.12	6.59	7.06	7.53
	11	1.50	2.01	2.51	3.01	3.51	4.01	4.51	5.01	5.52	6.02	6.52	7.02	7.52	8.02
	12	1.60	2.14	2.67	3.20	3.74	4.27	4.80	5.34	5.87	6.41	6.94	7.47	8.01	8.54
	13	1.70	2.27	2.84	3.41	3.98	4.54	5.11	5.68	6.25	6.82	7.39	7.95	8.52	9.09
	14	1.81	2.42	3.02	3.63	4.23	4.83	5.44	6.04	6.65	7.25	7.85	8.46	9.06	9.67
	15	1.93	2.57	3.21	3.85	4.50	5.14	5.78	6.42	7.07	7.71	8.35	8.99	9.63	10.28
	16	2.05	2.73	3.41	4.09	4.78	5.46	6.14	6.82	7.51	8.19	8.87	9.55	10.24	10.92
	17	2.17	2.90	3.62	4.35	5.07	5.80	6.52	7.25	7.97	8.70	9.42	10.15	10.87	11.60
	18	2.31	3.08	3.85	4.62	5.39	6.16	6.92	7.69	8.46	9.23	10.00	10.77	11.54	12.31
	19	2.45	3.27	4.08	4.90	5.71	6.53	7.35	8.16	8.98	9.80	10.61	11.43	12.24	13.06
Tomp	20	2.60	3.46	4.33	5.19	6.06	6.93	7.79	8.66	9.52	10.39	11.25	12.12	12.99	13.85
(°C)	21	2.75	3.67	4.59	5.51	6.42	7.34	8.26	9.18	10.09	11.01	11.93	12.85	13.76	14.68
(0)	22	2.92	3.89	4.86	5.83	6.81	7.78	8.75	9.72	10.69	11.67	12.64	13.61	14.58	15.56
	23	3.09	4.12	5.15	6.18	7.21	8.24	9.27	10.30	11.33	12.35	13.38	14.41	15.44	16.47
	24	3.27	4.36	5.45	6.54	7.63	8.72	9.81	10.90	11.99	13.08	14.17	15.26	16.35	17.44
	25	3.46	4.61	5.77	6.92	8.07	9.22	10.38	11.53	12.68	13.84	14.99	16.14	17.30	18.45
	26	3.66	4.88	6.10	7.32	8.54	9.76	10.98	12.20	13.41	14.63	15.85	17.07	18.29	19.51
	27	3.87	5.16	6.45	7.73	9.02	10.31	11.60	12.89	14.18	15.47	16.76	18.05	19.34	20.63
	28	4.09	5.45	6.81	8.17	9.54	10.90	12.26	13.62	14.98	16.35	17.71	19.07	20.43	
	29	4.32	5.76	7.19	8.63	10.07	11.51	12.95	14.39	15.83	17.27	18.70	20.14		
	30	4.56	6.08	7.60	9.11	10.63	12.15	13.67	15.19	16.71	18.23	19.75			
	31	4.81	6.41	8.02	9.62	11.22	12.82	14.43	16.03	17.63	19.24				
	32	5.07	6.76	8.46	10.15	11.84	13.53	15.22	16.91	18.60					

* Inside red line area: Allowed Temperature/Humidity Range for Operation

* Inside green line area: Recommended Temperature/Humidity Range for Operation

e.g. Ghost image occurence condition: Absolute humidity 3.5 - 5.0 g / m 3 (28 °C 15% RH, 15 °C 30% RH)

Technical Bulletin

PAGE: 1/1

Model: Andromeda	18	No.: RM0B1017			
Subject: Parts cata	Prepared	by: J. Ohno			
From: Sales Strategy Sect., 1st CP Business Dept.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part infor Electrical Transmit	rmation / /receive)	 Action r Service Retrofit Tier 2 	required manual revision information Tier 0.5

The NVRAM on the controller board was registered as service parts.

Old P/N	New P/N	Description	Q'ty	Int	Note
-	M0B1 9590	NVRAM	1	-	Add

Note: P/n: M0B19590 contains two NVRAMs, which must be replaced together as a set.



Note:

After replacing with a new NVRAM, if the machine is powered On with the NVRAM connected incompletely, the operation panel displays a toner end alert or an address book error, making it look like as if the system acknowledged the new NVRAM. However, the system will not start up in this state, because connection to the controller fails. When replacing the NVRAM, confirm secure connection.



Reissued: 24-Aug-18 Model: Andromeda-P2

Data: 27_ Jul_18	
Dale. 21-Jui-10	

RTB Reissue

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

Subject: FSM Cor lens bloc	rection: Step added for proc and exposure unit	Prepared by: J. Ohno	
From: Sales Strate			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receive Other () 	 Action required Service manual revision Retrofit information Tier 2 Tier 0.5

Please add Step 10 and Step 11 to the procedure in the following section of the FSM:

4. Replacement and Adjustment > Transferred Image Reading Module > TIM-Red Unit > After replacing the lens block and exposure unit (Page. 1330)

Step 10 instructs to fine-tune the distances between two sets of sensors; a) upstream paper length sensor and downstream paper length sensor, b) paper cooing exit sensor and exit junction sensor, after replacing the exposure unit.

This is because the exposure unit contains a sensor bracket, which is attached with the downstream paper length sensor and exit junction sensor. Replacing with a new exposure unit changes the distance between the sensors and affects the image magnification ratio in sub scan direction for jobs enabled of the Auto/Real-time Registration Adjustment.

Step 11 instructs to reinstall the FR Correction Parameter into the ACD unit.

Technical Bulletin

Reissued: 24-Aug-18

Model: Andromeda-P2 Date	ate: 27-Jul-18	No.: RM0B1018a
--------------------------	----------------	----------------

After replacing the lens block and exposure unit

Replace the lens block and exposure unit as a set. After that, do the following procedure.

Note

Close the doors while doing the procedure.

- 1. Make sure that all the doors of the main machine are closed.
- Insert the SD card that is an accessory of the two-part set into the service slot [A] in the controller board of the main machine.



- Enter the SP mode, and then execute SP5-766-001 (External Data Download: Reduction optical system) to download color conversion parameters from the SD card.
- After the operation panel shows "Complete", execute SP1-750-001 (Color_para. Download From TIM_BiCU to CRB).
- 5. After the operation panel shows "Complete", remove the SD card from the service slot.
 () Important

When executing a SP command, do not open/close a door or turn the machine off. Otherwise, data in one of the boards could be damaged, and the board may need replacing.

If "Fail" is shown after the procedure, reboot the machine and try again.

- 6. Execute SP7-622-154 (Reset #Inline Sensor:Lens Block Unit).
- 7. Execute SP7-622-155 (Reset #Inline Sensor:TIM-RED Unit).
- 8. Execute SP1-613-001 (Gray Balance Adj. Execution).
- 9. Execute SP1-613-002 (Gray Balance Adj. Result).
- <u>10.</u> Adjust the distance between the sensors at two locations.

(Refer to the FSM: 4. Replacement and Adjustment>Image Adjustment>Adjustment Related to Transport Precision>Correcting the Sensor Position)



Reissued: 24-Aug-18

Model: Andromeda-P2	Date: 27-Jul-18	No.: RM0B1018a

- 11. Reinstall the FR correction parameter to the ACD unit by following the steps below.
 - NOTE: This step is required because the FR correction parameter is unique to each TIM-Red unit (exposure unit and lens block). The parameter is stored in the SD card, which comes together with the TIM-Red unit procured as a service part (p/n: M0B17075).
 - 11-1. Verify that the SC card contains the FR correction parameter.
 - Directory: "root\PIRAMID"
 - Filename: FRC_Parameter.csv
 - 11-2. Insert the SD card to the USB-SD adaptor [A].



- 11-3. Reinstall the FR correction parameter by referring to the procedure in the FSM, in section: 4. Replacement and Adjustment > Auto Color Diagnosis Unit > FR Correction Parameter Reinstallation > Update Procedure
 - NOTE: In case the SD card is missing or was lost, please report the lot number [A] described on the lens block unit to your supervisor. Information on the FR correction parameter will be obtained from the factory.


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Model: Andromeda-P2		Date: 2	7-Jul-18	No.: RM0B1019	
Subject: FSM Correction: How to update the f/w for the Auto Color Diagnosis Unit (VPU)			Prepared by: J. Ohno		
From: Sales Strategy Section, 1st CP Business Dep.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/rece Other (Information) 	on ive ation)	Action red Service n Retrofit ir Tier 2	quired nanual revision nformation

Please the make following correction to your field service manual in section:

4.Replacement and Adjustment > Auto Color Diagnosis Unit > Firmware Update

Preparation:

• Set the following SPs to [1: ON].

SP1-721-001 SP1-722-001 SP1-722-005

NOTE: DO NOT change SP1-722-002 to [1: ON]. This SP must be kept turned OFF.

What you will need for the f/w update procedure:

- > SD card
- USB-SD adapter (p/n: M0B19500)



> Screwdriver

Date: 27-Jul-18

No.: RM0B1019

Step 1: Downloading the update files to the SD card

1. Download the following update files to your PC.

Firmware Type	Filename
System SW	vpusw.zip.enc
Master FPGA	vmcufpga.zip.enc
Master Ri	vmcuri.zip.enc
Inspection FPGA	vicufpga.zip.enc
Inspection Ri	vicuri.zip.enc
Setting File	others.zip.enc

- 2. Unzip the downloaded zip files.
 - If the file extension is ".enc", do the next step.
- 3. Copy the files to the root folder of the SD card.
 - If there is no root folder in the SD card, create a new folder.
 - Do not copy the files to the "romdata" folder.

	SDHC (D:)	Copy to th	ne root, not to "romdata."	10 m 10	T to SDH	C (D:)
						0 (01)0
(E) 編集(<u>E</u>) 表示(⊻) ツ	ν−ıı(I) ^	√レプ(<u>H</u>)				
共有 ▼ 新しいフォル	<i>I</i> ダー					
マイ ミュージック	*	名前	File extension is ".enc."		種類	
リンク		👔 romdata	2017/0	8/08 16:39	ファイルフォ	<i>ι</i> μ
食索		others.zip.enc	2017/0	8/07 12:05	ENC ファイル	
呆存したゲーム		vicufpga.zip.enc	2017/0	8/07 12:05	ENC ファイル	
ンピューター		vicuri.zip.enc	2017/0	8/07 12:05	ENC ファイル	
コーカル ディスク (C:)		vmcufpga.zip.enc	2017/0	8/07 12:05	ENC ファイル	
		vmcuri zin enc	2017/0	8/07 12:05	FNC ファイル	

4. Turn Off the mainframe power.

Step 2: Removing the front cover of the Auto Color Diagnosis Unit

- 1. Open the left cover of the fusing section of the mainframe.
- Remove the front cover [A] of the Auto Color Diagnosis Unit. (screw x5)
 [A] -



Date: 27-Jul-18

No.: RM0B1019

Step 3: Updating the Auto Color Diagnosis firmware

1. Set the SD card to the USB-SD adapter and insert it to the USB port [A] on the front of the Auto Color Diagnosis Unit.



2. Turn On the mainframe power.

IMPORTANT

Do not turn On the Auto Color Diagnosis Unit by pressing switch [A]. Auto Color Diagnosis Unit will turn On automatically after the mainframe turns On.



3. Wait for about *four minutes* for the list of firmware to appear on the operation panel screen.



RICOH

No.: RM0B1019

4. Select a firmware. Selecting one item will automatically select all items, if multiple items appear on the list. Then, press Update [A] to start the update.



The following screen appears when the update completes.

Deard -> ROM		
	Undain done.	
No. F. Toron	Pover Off On	HARRIN

5. Turn Off the power in the following method depending on the firmware updated.

Auto Color Diagnosis Unit will turn Off automatically after the firmware update completes. Press only the power switch [A] on the mainframe.



The firmware version of the Auto Color Diagnosis Unit displayed on the operation panel is not of the version after the update. To display the updated version, power cycle the mainframe Off/On **twice**.

SC693-xx may occur, but you may ignore this SC. Power cycle the machine Off/On, if the SC occurs.

6. Put back the front cover of the Auto Color Diagnosis Unit.

Date: 27-Jul-18

No.: RM0B1019

How to check if the Auto Color Diagnosis Unit is active or inactive

When the unit is active, LEDs inside the unit are lit, which you can see through the holes outlined in red in the photo below.





Reissued: 28-Nov-18

Model: Andromeda-P2 (M0B1/M0B2) D	Date: 31-Jul-18	No.: RM0B1020a
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RTB Reissue

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

Subject: Troubleshooting: SC459 (PTR pressure error)		Prepared by: Takuya Hirakawa	
From: PPCS section	CIP FQM Department QA	C	
Classification:	Troubleshooting	Part information	Action required
	🗌 Mechanical	Electrical	Service manual revision
	Paper path	Transmit/receive	Retrofit information
	Product Safety	Other ()	🛛 Tier 2 🛛 🗌 Tier 0.5

SYMPTOM

SC459 (PTR pressure error) may occur.

CAUSE

The paper dust removing scraper in the registration draw unit does not apply enough contact pressure. Due to this, the paper dust passing through the scraper drops onto the PTR position sensor under the paper dust removing roller. As a result, a sensor misdetection is triggered.

Note:

- The contact area of the scraper is lower than on the Andromeda-P1. This in turn results in insufficient paper dust removal.
- The symptom is more likely to occur when using paper with a thickness of 7 or higher that contains a large amount of paper dust.

Amount of contact between the scraper and roller:



Technical Bulletin

Reissued: 28-Nov-18

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Locations of the PTR position sensor and paper dust removing roller:



SOLUTION

Temporary

Remove the paper dust that has adhered to the PTR position sensor.

Permanent

Replace to the following modified parts using the PROCEDURES below.

Part number	Description	Q'ty	Int	Set
M0B17264	COVER:POSITIONING SENSOR:CAM:PRESSURE	1	-	Α
M0B17365	CASE:REMOVE PAPER DUST:ASS'Y	1	Х/О	A

Technical Bulletin

Reissued: 28-Nov-18

Model: Andromeda-P2 (M0B1/M0B2)	Date: 31-Jul-18	No.: RM0B1020a
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PROCEDURES

Cleaning the PTR position sensor

1. Open the left front door [A] and the right front door [B] of the imaging section.



m205a2271

2. Tilt the handle [A] counterclockwise and pull out the drawer unit [B].



3. Open the clamp around the bracket [A] of the PTR position sensor from the underside of the drawer unit to let the harness free.



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4. Remove the screw of the bracket of the PTR position sensor.



5. Open the clamp, remove the connector of the PTR position sensor and remove it together with the bracket.



💱 x1 🕼 x1

m0b2d4156

6. Remove the paper dust that has adhered to the PTR position sensor.



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Reissued: 28-Nov-18

Model: Andromeda-P2 (M0B1/M0B2)	Date: 31-Jul-18	No.: RM0B1020a

Replacing the paper dust removing case

- Open the left front door and the right front door of the imaging section. 1.
- Tilt the handle [A] counterclockwise and pull out the drawer unit [B]. 2.



3. Remove the cover [A].



4. Install the paper dust removing case and confirm that the scraper and the roller are in contact along the full width (without any gap).





Reissued: 28-Nov-18

Model: Andromeda-P2 (M0B1/M0B2)	Date: 31-Jul-18	No.: RM0B1020a
		1

Installing the upper part of the PTR position sensor

- 1. Open the left front door and the right front door of the imaging section.
- 2. Tilt the handle [A] counterclockwise and pull out the drawer unit [B].



3. Remove the bracket [A] of the 2nd transfer belt unit.



m0b2d5502

4. Remove the timing belt [A] from the timing pulley [B].



m0b2d5503

5. Remove the guide plate [A].

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Reissued: 28-Nov-18

Model: Andromeda-P2 (M0B1/M0B2	2)	Date: 31-Jul-18	No.: RM0B1020a



6. Remove the 2nd transfer belt unit [A].



mob

Important:

- Lift the 2nd transfer belt unit with the following parts.
- Rear side: purple decal part [A]
- Front side: Timing pulley part [B] and purple decal part



m0b2d5506a

7. Place the 2nd transfer belt unit [A] on a flat surface.



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Model: Andromeda-P2 (M0B1/M0B2)	Date: 31-Jul-18	No.: RM0B1020a



- 8. Clean the back side of the inlet lower guide plate. (Width 50 mm or more)



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Model: Andromeda-P2 (M0B1/M0B2) Date: 31-Jul-18 No.: RM0B1020a	Model: Andromeda-P2 (M0B1/M0B2)	Date: 31-Jul-18	No.: RM0B1020a
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9. Pass the cover [A] through the gap above the shaft. Touch the bracket edge [C] to the bent portion of the paper guide [D] and attach. Make sure the proximity of attachment is 1mm or less from [C] to [D].



10. To return the 2nd transfer belt unit, first release the blade before attaching back to the drawer unit. To do this, move the 1st blade release lever [A] with both hands (two spots simultaneously) several times. Do the same for the 2nd blade release lever [B].

Note: If the blades are not released in this way, blade peeling may occur.



Reissued: 28-Nov-18

Model: Andromeda-P2 (M0B1/M0B2)	Date: 31-Jul-18	No.: RM0B1020a





m0b2d5524

[B



Technical Bulletin

PAGE: 1/3

Model: Andromeda-P2 Date: 23-Aug				-18	No.: RM0B1021
Subject: How to overwrite SP settings using a batch file				Prepared	by: J. Ohno
From: Sales Strategy Sect., 1st CP Business Dept.					
Classification:	 Troubleshooting Part information Mechanical Paper path Product Safety Art information Part info		mation /receive formation)	 Action r Service Retrofit Tier 2 	equired manual revision information Tier 0.5

This bulletin provides the procedure for overwriting multiple SP settings at once from a laptop PC using a batch file and software application, to save trouble in having to manually change SP settings one at a time.

Please use this procedure when many SP settings have to be changed.

What you will need

- SP batch file (text file)
- Laptop PC
- Tera Term (software application)
- Debug cable (p/n: G1785397) and relay cable (p/n: D1945398)

Note: The relay cable is needed because the debug cable supplied to the field is of the old type and cannot be connected to new models like the Andromeda.

USB RS232C conversion cable

Procedure

- 1. Turn Off the main power.
- 2. Open the front doors and keep them open throughout the procedure.
- 3. Connect the debug cable via the relay cable to the Master connector on the BCU board (behind the IOB) and the other end to the laptop PC.





Date: 23-Aug-18

No.: RM0B1021

4. Open and set up Tera Term as follows.

📒 Te	era Term - [disconnecte	ed] VT	_ 0 🔀	6	💄 Tera Term - [discor	nnected] VT	-		3
File	Edit Setup Control	Window	Help	F	File Edit Setup Co	ntrol Window Help			
[New connection	Alt+N	A		Tera Term: New c	connection		×	*
	Duplicate session	Alt+D	Ξ						
	Cygwin connection	Alt+G			© TCP/IP	Host: myhost.ex	ample.com	*	
	_og Comment to Log View Log Show Log dialog					✓ History Service: ○ Telnet	TCP port#: 22 SSH version: SSH2	•	
	Send file Transfer SSH SCP Change directory Replay Log	•			Serial	○ Other Port: <mark>COM8:</mark> 拡	Protocol: UNSPE		
	TTY Record TTY Replay					OK Cancel	Help		
	Print	Alt+P							
	Disconnect	Alt+I	-						-

* In the example above, USB RS232C conversion cable was used to connect the debug cable to the PC.



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Date: 23-Aug-18 No.: RM0B1021

5. Drag and drop the text file to the Tera Term window and click "Send file".

-

era Term: File	Drag and Drop	×
Are you sure th	at you want to send	the file content?
SCP: ~/		
Send file	SCP	Cancel

6. Wait until no further commands appear. Note that it may take about 30 minutes when there are numerous SP settings that have to be changed.



- 7. Turn Off the main power.
- 8. Close the doors.



Reissued: 8-Apr-19

-			
Model: Androme	eda-P2	Date: 24-Aug-18	No.: RM0B1022a

RTB Reissue

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

Subject: FSM Rev	ision: Added description on	Prepared by: J. Ohno	
From: Sales Strategy Sect., 1st CP Business Dept.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receive Other () 	 Action required Service manual revision Retrofit information Tier 2 Tier 0.5

Please add the following description on SC673-10 to your field service manual in section:

6. Troubleshooting \rightarrow SC600 (Controller)

SC code	Level	Details (Symptom, Possible cause, Solution)				
SC673-10	D	Communication error from the Operation Panel to Engine				
Symptom:	Symptom:					
Communication respond.	Communication between the operation panel and engine failed because the engine did not respond.					
Possible causes	:					
 * The cable connecting the Operation Panel and Engine (USB) is disconnected. * SP5-748-201 (OpePanel Setting: Cheetah Panel Connect Setting) is set to "0 (Not connecting)" * Controller board is defective. * Engine board is defective. * DTU board is defective. 						
Solution:						
 * Reconnect the connector between the Operation Panel and Engine. * Cycle the machine off/on. * Set SP5-748-201 (OpePanel Setting/Cheetah Panel Connect Setting) to "1 (Connecting)" and then turn the main switch OFF/ON. * Replace the Controller board. * Replace the Engine board. * Replace the DTU board. 						

The above descriptions regarding SP5-748-201 were deleted because this SP setting cannot be changed and is purposed for display only.

Model: Andromeda-P2			Date: 7-Sep-	18	No.: RM0B1023
Subject: FSM Correction: Auto Color Diagnosis Unit: Storing Service Logs on SD Card					l by: Hiroaki Matsui
From: Sales Strategy Sect., 1st CP Business Dept.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receive Other () 		 ☐ Action r ⊠ Service ☐ Retrofit ⊠ Tier 2 	equired manual revision information Tier 0.5

Please correct and add information about the SD card log storing tool as described in blue in the following section of the FSM:

4. Replacement and Adjustment > Auto Color Diagnosis Unit > Service Log > Storing a Service Log on an SD card.

Service Log	
Storing a Service Log on an SD Card	

Overview

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In this procedure, while we operate the machine, a log of the operation is copied to an SD card.

Preparation

- SD card for storing the service log
- SD card log storing tool (installed in the PC for service maintenance)
 See NOTE
- USB-SD adapter [A]



NOTE:

Right click to copy the attached SD card log storing tool "VpuLogRequest.exe" file and paste it to your PC.



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Model: Andromeda-P2

Date: 7-Sep-18 No.: RM0B1023

Procedure

- 1. Run "VpuLogRequest.exe" on your PC.
- 2. Specify the start date/time and end date/time. The format is "YYYY", "MM", "DD", "HH".

🖳 VPU Logi	Request	
Start: 20	17 08 07	00:00
End: 20	17 08 08	23 :59:59
Filename:	vpulog	Save

- 3. Click Save and specify the SD card or USB flash drive as the save to location.
- 4. Check your SD card or USB flash drive and verify the filename "vpulog."
- 5. Turn Off the printer.
- 6. Insert the USB-SD adaptor or USB flash drive to the USB port of the ACD unit.
- 7. Turn On the printer. (The machine automatically starts writing logs to the USB-SD adapter or USB flash drive.)
- 8. Wait for the access lamp of the USB-SD adaptor or USB flash drive to turn off and the ACD unit to shut down automatically.
- 9. Turn Off the printer.
- 10. Remove the USB-SD adaptor or USB flash drive from the ACD unit.
- 11. Transfer all data (which should include "defect", "image" and "system" folders) in the SD card or USB flash drive to your PC. These files are the service logs of the ACD unit.

1 Tank S				0		- 2
- ** · コンピューター · SO	HC (D:) •		• 49 SDHC (D.)の検索		
ファイル(F) 編集(E) 表示(V) ツー	ル(T) ヘルプ(H)					
鼓躍 🔹 🎲 開く 共有 💌 新	しいフォルダー			÷ =	-	6
🌗 保存したゲーム	* 名前 *	更新日時	程 21	サイズ		
帰 コンピューター	defect	2017/08/08 8:45	ファイルフォルー			
▷ 🏭 ローカル ディスク (C:)	🎍 image	2017/08/08 8:45	ファイル フォル			
a 🍄 SDHC (D:)	🐊 system	2017/08/08 8:45	ファイル フォル			
> 🌛 defect	- D vpulog	2017/08/08 17:41	ファイル		1 KB	
🐊 image						
🐊 system	(ii)					
Densuse-Le (E:)	8					
▷ 👎 Bluetooth情報交換						
🎭 ネットワーク						
> 🛤 A050847785						
ELETSNOTE-KY						
MDGUSER-SHARED						
NAD008731						
NAD008722	*					

12. Delete all the files (including "vpulog") from the SD card or USB flash drive.

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Model: Andromeda-P2 Date: 13-Sep-					No.: RM0B1024
Subject: Changes to the Auto Color Diagnosis Unit setting with Engine Ver.1.42:12 (M0B15160G) or newer					l by: Hiroaki Matsui
From: Sales Strategy Sect., 1st CP Business Dept.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part infor Electrical Transmit Other (mation /receive)	 Action r Service Retrofit Tier 2 	equired manual revision information Tier 0.5

IMPORTANT NOTICE on Changes to the Auto Color Diagnosis (ACD) Unit Activation/Deactivation Settings

With Engine f/w Ver.1.42:12 (M0B15160G) or newer, the following changes take effect on the ACD unit settings:

1. The system forcibly sets SP1-721-001 (ACD Unit Initial Setting) to "1 (Connect)" whenever the printer power turns On.

NOTE: Even if the SP is set manually to "0 (Not connect)", the setting returns to "1 (Connect)" after the machine power cycles Off/On.

2. If the ACD function needs to be deactivated for some reason, make the following SP settings as a set.

SP1-722-001 (ACD Unit System Setting/ Enable ACD Unit Master): "0 (OFF)" SP1-722-005 (ACD Unit System Setting/ Enable Auto Color Diagnosis): "0 (OFF)"

To turn back On the ACD function, set both of the above SPs to "1 (ON)".

NOTE: These settings can also be made in the User Program mode as shown below.

		Advantaget Cation	11
constation Trily Paper Settings Additioned Settings		Printer Status Tray Paper Settings Properties	
🛷 Reset	(*	A Reset	(\$
🕸 System Settings	Exit	🔯 System Settings	Exit
General Timer Interface File Features Settings Transfe	n Administrator Tools	General Timer Auto Color D Features Settinas Select item.	aenosis Unit Setting Cancel OK then press [OK].
Program / Delete Device Certificate	Collect Logs	Program / Delete Device (
Device Setting Information: Import Setting (Server)	Central Management	Device Setting Information: Impor	Inactive <- SP1-722-001
Device Setting Information: Run Import (Server)	Display IP Address Do not Display	Device Setting Information: Rur	Diamosis
Device Setting Information Export (Memry Strge Devc)		Device Setting Information: Export	ve Inactive <- SP1-722-005
Device Setting Information: Import (Memry Strae Devc)		Device Setting Information: Import	
Energy Saver Key to Change Mode Low Power Mode	Auto Color Diagnosis Unit Setting Active	Energy Saver Key to Change Mode	
	4∕4 ▲ freites Victor		
menti ul biacto Taren Bartin elli sum le recenzery. 🍝 💦	- 1723	A Stoler Carlingle B atmost empty.	≡ III



Model: Andromeda-P2 (M0B1/M0B2) Da			Date: 13-Se	p-18	No.: RM0B1025
Subject: Troublesho	oting: Black bands of 50	m width	Prepared by	': Takuya Hirakawa	
From: PPCS section CIP FQM Department QAC]		
Classification:	☑ Troubleshooting	Part inform	nation	Action re	quired
	Mechanical	Electrical		Service manual revision	
	Paper path	Transmit/receive		Retrofit information	
	Product Safety	Other ()	🛛 Tier 2	Tier 0.5

SYMPTOM

In low-temperature environments or when the fluctuation of temperature and humidity between machine running and standby is large, white or black bands of 50 mm and 15 mm width may occur at 310 mm pitch in the sub-scan direction in solid image or halftone areas.

CAUSE

The uneven image density is caused by the following reasons.

- 1. Fluctuation of PG due to eccentricity and deflection of the development roller or the photoreceptor.
- 2. DEMS / DSC that reduces uneven density is not executed due to HP sensor failure.
- 3. As the effect of DEMS/DSC varies depending on the image coverage, uneven density may stand out on low-coverage charts.

SOLUTION

Do the following.

PROCEDURES









Model: Andromeda-P2 (M0B1/M0B2)

[How to apply grease]

- 1. Remove the development unit.
- 2. Remove the cover [A] on the rear side.

Note:

The screw [B] is made of wood.



3. Apply grease to the opening and entire area of the bearing's outer ring, as shown in the photos below. There is no problem with grease getting on the screw.

Important:

- In cases where the symptom has occurred, apply grease even if there has already been grease applied.
- In cases where the symptom has not occurred, apply the grease at PM.

Grease: Conductive grease KS-660 Part number: D0149800 GREASE-KS660B Amount to be applied: 0.04g (**See photos below**)



Grease amount: Maximum



Grease amount: Minimum







Apply grease to the entire outer ring of the bearing, as shown in these photos. Do not leave any areas ungreased.



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Model: Andromeda-P2 (M0B1/M0B2)

Date: 13-Sep-18

No.: RM0B1025



Make sure there is no grease on the drawer connector, as this is the exterior of the development gear cover and will lead to dirtying. If there is any grease on the connector, remove it with a cloth.



Model: Andromeda-P2 (M0B1/M0B2)

Date: 13-Sep-18

No.: RM0B1025

[Troubleshooting for uneven image density at 65 mm pitch interval]

1. Change DEMS parameters.

Note:

Reduce density unevenness with low image area ratio chart. There is a trade-off relationship with the development roller cycle density unevenness with a high image area ratio.

Model	SP number	SP name	Default	Set to
Andromeda-	SP3-671-051	Vc: Coef: setting Scd [1]: K	123	246
FId	SP3-671-052	Vc: Coef: setting Scd [1]: C	85	170
	SP3-671-053	Vc: Coef: setting Scd [1]: M	85	170
	SP3-671-054	Vc: Coef: setting Scd [1]: Y	85	170
Andromeda-	SP3-671-051	Vc: Coef: setting Scd [1]: K	102	204
120	SP3-671-052	Vc: Coef: setting Scd [1]: C	140	280
	SP3-671-053	Vc: Coef: setting Scd [1]: M	140	280
	SP3-671-054	Vc: Coef: setting Scd [1]: Y	140	280

2. Execute sub scan image density adjustment with SP3-011-012.

Model: Andromeda-P2 (M0B1/M0B2)

Date: 13-Sep-18

No.: RM0B1025

[Troubleshooting for uneven image density at 310 mm pitch interval]

1. Take a memo the DEMS correction amplitude value of the target color

SP number	SP name
SP3-677-001	Vb: Amp: Disp OPC: abp [1]: K
SP3-677-002	Vb: Amp: Disp OPC: abp [1]: C
SP3-677-003	Vb: Amp: Disp OPC: abp [1]: M
SP3-677-004	Vb: Amp: Disp OPC: abp [1]: Y

- 2. Pull out the PCDU of target color.
- 3. With the cleaning unit attached, rotate the photoreceptor counterclockwise 90 degrees. Note:

Rotate the photoreceptor in the arrow direction with three holes of the photoconductor flange as a guide. If it is rotated in the reverse direction, toner dropping may occur.



4. Return the PCDU and execute DEMS for the target color.

SP number	SP name
SP3-040-002	DEMS: Execute K
SP3-040-003	DEMS: Execute C
SP3-040-004	DEMS: Execute M
SP3-040-005	DEMS: Execute Y

- 5. Take a memo the photoreceptor rotation angle and the DEMS correction amplitude value.
- 6. Repeat steps 2 to 5 two more times.
- 7. Pull out the PCU unit and set the photoreceptor to the angle where the DEMS correction amplitude value is the smallest. (Including the correction value 0).
- 8. Return the PCDU.
- 9. Execute sub scan image density adjustment with SP3-011-012.



Model: Andromeda-P2 (M0B1/M0B2) Da			Date: 13-Se	p-18	No.: RM0B1025
Subject: Troublesho	oting: Black bands of 50	m width	Prepared by	': Takuya Hirakawa	
From: PPCS section CIP FQM Department QAC]		
Classification:	☑ Troubleshooting	Part inform	nation	Action re	quired
	Mechanical	Electrical		Service manual revision	
	Paper path	Transmit/receive		Retrofit information	
	Product Safety	Other ()	🛛 Tier 2	Tier 0.5

SYMPTOM

In low-temperature environments or when the fluctuation of temperature and humidity between machine running and standby is large, white or black bands of 50 mm and 15 mm width may occur at 310 mm pitch in the sub-scan direction in solid image or halftone areas.

CAUSE

The uneven image density is caused by the following reasons.

- 1. Fluctuation of PG due to eccentricity and deflection of the development roller or the photoreceptor.
- 2. DEMS / DSC that reduces uneven density is not executed due to HP sensor failure.
- 3. As the effect of DEMS/DSC varies depending on the image coverage, uneven density may stand out on low-coverage charts.

SOLUTION

Do the following.

PROCEDURES









Model: Andromeda-P2 (M0B1/M0B2)

[How to apply grease]

- 1. Remove the development unit.
- 2. Remove the cover [A] on the rear side.

Note:

The screw [B] is made of wood.



3. Apply grease to the opening and entire area of the bearing's outer ring, as shown in the photos below. There is no problem with grease getting on the screw.

Important:

- In cases where the symptom has occurred, apply grease even if there has already been grease applied.
- In cases where the symptom has not occurred, apply the grease at PM.

Grease: Conductive grease KS-660 Part number: D0149800 GREASE-KS660B Amount to be applied: 0.04g (**See photos below**)


Grease amount: Maximum



Grease amount: Minimum







Apply grease to the entire outer ring of the bearing, as shown in these photos. Do not leave any areas ungreased.



Technical Bulletin

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Model: Andromeda-P2 (M0B1/M0B2)

Date: 13-Sep-18

No.: RM0B1025



Make sure there is no grease on the drawer connector, as this is the exterior of the development gear cover and will lead to dirtying. If there is any grease on the connector, remove it with a cloth.



Model: Andromeda-P2 (M0B1/M0B2)

Date: 13-Sep-18

No.: RM0B1025

[Troubleshooting for uneven image density at 65 mm pitch interval]

1. Change DEMS parameters.

Note:

Reduce density unevenness with low image area ratio chart. There is a trade-off relationship with the development roller cycle density unevenness with a high image area ratio.

Model	SP number	SP name	Default	Set to
Andromeda-	SP3-671-051	Vc: Coef: setting Scd [1]: K	123	246
FId	SP3-671-052	Vc: Coef: setting Scd [1]: C	85	170
	SP3-671-053	Vc: Coef: setting Scd [1]: M	85	170
	SP3-671-054	Vc: Coef: setting Scd [1]: Y	85	170
Andromeda-	SP3-671-051	Vc: Coef: setting Scd [1]: K	102	204
P20	SP3-671-052	Vc: Coef: setting Scd [1]: C	140	280
	SP3-671-053	Vc: Coef: setting Scd [1]: M	140	280
	SP3-671-054	Vc: Coef: setting Scd [1]: Y	140	280

2. Execute sub scan image density adjustment with SP3-011-012.

Model: Andromeda-P2 (M0B1/M0B2)

Date: 13-Sep-18

No.: RM0B1025

[Troubleshooting for uneven image density at 310 mm pitch interval]

1. Take a memo the DEMS correction amplitude value of the target color

SP number	SP name
SP3-677-001	Vb: Amp: Disp OPC: abp [1]: K
SP3-677-002	Vb: Amp: Disp OPC: abp [1]: C
SP3-677-003	Vb: Amp: Disp OPC: abp [1]: M
SP3-677-004	Vb: Amp: Disp OPC: abp [1]: Y

- 2. Pull out the PCDU of target color.
- 3. With the cleaning unit attached, rotate the photoreceptor counterclockwise 90 degrees. Note:

Rotate the photoreceptor in the arrow direction with three holes of the photoconductor flange as a guide. If it is rotated in the reverse direction, toner dropping may occur.



4. Return the PCDU and execute DEMS for the target color.

SP number	SP name
SP3-040-002	DEMS: Execute K
SP3-040-003	DEMS: Execute C
SP3-040-004	DEMS: Execute M
SP3-040-005	DEMS: Execute Y

- 5. Take a memo the photoreceptor rotation angle and the DEMS correction amplitude value.
- 6. Repeat steps 2 to 5 two more times.
- 7. Pull out the PCU unit and set the photoreceptor to the angle where the DEMS correction amplitude value is the smallest. (Including the correction value 0).
- 8. Return the PCDU.
- 9. Execute sub scan image density adjustment with SP3-011-012.

Technical Bulletin

PAGE: 1/2

Reissued: 28-Sep-18

Model: Andromeda-P2		Date: 20-Sep-18		No.: RM0B1026a	
The items in <i>b</i> RTB Reissue	old italics were corr	ected or added			
Subject: Some of Diagnos	f FW Versions are display is Report	red incorrectly in S	Self-	Prepared	by: Hiroaki Matsui
From: 3rd Tech S	ervice Sect., MFP/P Tech	n Service Dept.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inforn Electrical Transmit/r Other (nation eceive)	Action re	equired manual revision nformation Tier 0.5

SYMPTOM

Self-Diagnosis Report (SP5-990-005) *and ROM No./ Firmware Version (SP7-801-255)* does not display the f/w version correctly for the following modules:

- ➤ CRB-L
- > SWIFT
- SCU-FPGA
- > TIM-RED

Shown below is an example

SP5-990-005: Self-Diagnosis Report

(CRB-L	00.720:00	When the display is Correct
(CRB-L	No String	When the display is Incorrect

SP7-801-255: ROM No./ Firmware Version

APL Window	SP Direct)	(-XXX-	XXX Exit
ROM No./ F	: SP-7-801 irmware Version	-255	
ACD Unit I-R ACD Unit Par SCU-FPGA	i M5 am M5 M0	185238 185239 B15261A	01.001.00 01.003.00 00.610
TIM-RED DTU CAMEL	MC MC	815375A 815911A 815913A	1.00:01 M004 1010
-56	CRB-L		No String

Technical Bulletin

Model: Andromeda-P2 Date: 20-S			ep-18	No.: RM0B1027	
Subject: River marks and Gloss streaks when printed in Duplex on Synthetic paper				Prepared	by: Hiroaki Matsui
From: 3rd Tech Service Sect., MFP/P Tech Service Dept.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform Electrical Transmit/re Other (nation eceive)	 ☐ Action re ☐ Service n ☐ Retrofit in ☑ Tier 2 	quired nanual revision nformation Tier 0.5

SYMPTOM

The following two symptoms occur in conjunction when printed in duplex on synthetic paper:

- 1) On the first side, 'River marks' gloss differential in the shape of river is observed.
- 2) On the second side, gloss streaks are observed as an after effect of river marks.



Paper Feeding Direction

CAUSE

Tiny wrinkles are created on the paper when the paper passes through the fusing unit, which tends to occur due to the nature of synthetic paper.

SOLUTION

Lower the fusing temperature by referring to the flowchart on the next page.

NOTE: Fusibility may degrade especially if printed in low room temperature.



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Model: Andromeda-P2 Da			Date: 28-Sep-18		No.: RM0B1029
Subject: Unprinted white marks in shape of bird footprints near Trailing Edge			Prepared by	r: Hiroaki Matsui	
From: 1st Tech Se	rvice Sect., PP Tech Servic	e Dept.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform Electrical Transmit/re Other (nation eceive)	Action re Service r Retrofit in Tier 2	quired nanual revision nformation

SYMPTOM

In duplex jobs, unprinted white marks in the shape of bird footprints appear within 10 mm from the trailing edge on the back side.



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The problem tends to occur under the following conditions:

- Low temperature/humidity
- Face-curled weight 3~5 coated paper

CAUSE

Electrical discharge occurs at the trailing edge in the belt-to-paper toner transfer process and affects the toner image.

- The discharge occurs because the trailing edge tends to flick when it passes through the PTR entrance guide plate and creates an unwanted gap between the ITB.
- The paper gets rubbed against the PTR entrance guide plate when it is face-curled, generating an electrical charge. The symptom occurs on the back side because the paper tends to curl in face-up direction after passing through the duplex path.

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SOLUTION

- Load the paper on the tray upside down, if allowed.
- Curl the paper with your hands so that it is slightly back-curled when loaded on the tray.
- Raise the room temperature/humidity to at least 20°C/30%. Wait for about an hour for the change to take effect.

If the above does not solve the problem, do the below.

• Change the position of the PTR Entrance Guide to the second position. See the following section of the FSM for the procedure:

[4. Replacement and Adjustment > Intermediate Transfer Belt Unit (ITB) > PTR Guide Position Sensor > PTR Entrance Guide Position Change]

NOTE: Setting to the second position has adverse effects on Wt.7 or heavier stocks.

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Model: Andromeda-P2 Date			Date: 28-S	ep-18	No.: RM0B1030
Subject: Troubleshooting toner bottle open/close motor lock			Prepared by: J. Ohno		
From: Sales Strate	gy Sect., 1st CP Business	Dept.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (nation eceive)	Action re Service r Retrofit in Tier 2	quired nanual revision nformation

SYMPTOM

- Toner Near End alert appears even when the toner bottle is not near empty.
- The operation panel displays a Toner Supply Unit error.
- SC332 (toner bottle mottle error)

CAUSE

The gears connected to the toner bank is not engaged correctly and locks the toner bottle cap open/close motor.

SOLUTION

Check if the toner bottle cap open/close motor is functioning properly.

If it is malfunctioning, correct it by referring to the procedure below.

Check Procedure

Preparation

 With the toner bank installed, keep the toner bank cover open by cheating the interlock switch located aside the Bk toner bank. Fold a sheet of paper and insert it in between the switch so that the switch lifts up as shown below.





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- 1. Enter the SP mode and select the affected toner bottle(s) from SP3-162-001 to 008.
- 2. Set the SP to [1: Open], to open the toner bottle cap.
- 3. Verify that the cap opens.
- 4. Set the SP to [0: Close] and then to [1: Open].
- 5. Verify that the cap closes and opens smoothly.
- 6. Set the SP to [0: Close], to close the cap.



Open : The cap sinks in.

Closed : The cap sticks out.

IMPORTANT

- > Make sure to close the cap when completing the check procedure.
- > As described in the FSM, turn the power ON <u>after</u> setting the toner bottles.

If the toner bottle cap does not open and close smoothly, do the correctional procedure described on the following pages.

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Correctional Procedure

- NOTE: This procedure can be performed with the toner bank installed on or removed from the machine. If you wish to eliminate the risk of dropping the E-type retaining ring, it is suggested to remove the toner bank in advance.
 - 1. Remove the sensor bracket [A]. (screw x1)



2. Remove the toner bottle open/close motor [A]. (screw x2, connector x1)



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- 3. Make two markings on the gears and the bracket as follows:
 - a) Mark a line from the shaft of the helical gear through the teeth of the large gear.
 - b) Mark a line on the bracket to indicate the edge of the rack.



- 4. Remove the E-type retaining ring from the large gear.
- 5. Carefully slide the helical and large gears <u>WITHOUT moving the rack</u> until the large gear disengages from the rack.





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6. Turn the helical gear about 1/3 rotation.



7. Put back the components and repeat the Check Procedure to verify that the toner bottle cap opens/closes smoothly.

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Model: Andromeda-P2 Date: 1-Oc					No.: RM0B1031	
Subject: Advanced Settings that affect productivity					Prepared by:	
From: 1st Tech Service Sect., PP Tech Service Dept.			Hiroaki Matsui			
Classification:	 Troubleshooting Mechanical Paper path Product Safety Paper path Settings Pro 		nation eceive ranced Productivity)	Action re	quired nanual revision nformation [] Tier 0.5	

There have been many requests from our customers to clarify the Advanced Settings that affect productivity. To meet the request, the [Adjustment Item Menu Guide: TCRU/ORU] operating instructions will be revised.

Until then, please share with your customers the information below, which is a list of Advanced Settings that decrease productivity along with the reasons.

List of Advanced Settings that Affect Productivity

Advanced Settings	Reason
#1229-01 Paper Transfer Nip [Pressure mode]	Mixed Media jobs: The PTR initializes its pressure when the media switches.
#1230-01 Paper Transfer Roller Reverse Rotation	If set to a value '1' or higher, the PTR rotates in reverse direction during the job.
#1241 Fusing Temperature -01 [BW – Heat Roller Temp] -03 [FC – Heat Roller Temp]	Mixed Media jobs: The fusing temp changes when the target temp differs more than approx. 6°C between the medias.
-06 [BW/FC – Correct Temp: Pre-feed]	Generates a waiting time for the fusing unit to cool down or heat up depending on the value set, to reach the target temp for the succeeding job.
Initial Sheet Interval -07 [Low Temp: Simplex] -08 [Simplex] -09 [Low Temp: Duplex] -10 [Duplex]	Sheets are fed in long intervals for approx. 1 min after the job starts. The higher the value set, the longer the interval applied.
#1242-01 Fusing Pressure Roller On Before Fusing	When set to [1: On], the pressure roller contacts the fusing belt before the job starts.
#1243-01 Fusing Pressure Roller On After Fusing	When set to [1: On], the pressure roller contacts the fusing belt after the job completes.
#1246 Fusing Nip Width -01 [Nip Width]	Mixed Media jobs: The fusing nip width changes when the media switches.
-02 [Nip Width: Envelope]	Mixed Media jobs: The fusing nip width changes when switching between envelope and another media.

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Model: Andromeda-P2	Date: 1-Oct-18 No.: RM0B1031
#1247-01 Fusing Temperature Range [BW/FC - Heat]	<u>Mixed Media jobs</u> : Setting to a small value narrows the permissible fusing temp range and causes a waiting time for the temp to fall within the range when the media switches.
#1249-01 Fusing Belt Smoothing [Interval]	The higher the value set, the more frequent the belt smoothing operation runs.
#1250-01 Print Mode When Switching Paper Type	<u><i>Mixed Media jobs:</i></u> Setting to [1: Fusing Priority Mode] changes the fusing temp when the media switches.
	For a mixed paper size job, selecting [3: Productivity] will help maintain productivity as the fusing temp remains consistent.
#1331 Motor Speed Adjustment	Mixed Media jobs: The rotation speed of the PTR changes when the media switches.
-02 [Paper Transfer Roller]	
-05 [Fuser]	<u>Mixed Media jobs with Advanced Settings #1250-01 set</u> <u>to [1: Fusing Priority]</u> : The fusing belt rotation speed changes when the media switches.
-06 [Process Speed Setting]	Mixed Media jobs: The process speed changes when the media switches.
-07 [Paper Feed Interval Setting]	Increases the interval between each sheet fed. The lower the value set, the longer the interval applied.
#1341 Adjust Paper Curl (Fusing) Speed Adjustment - 01 [Curl Adjustment Setting]	Setting to [1: On] increases the interval between each sheet.
-02 [Paper Feed Interval 1]	These settings take effect when the above #1341-01 is
-03 [Paper Feed Interval 2]	set to [1: On].
-04 [Paper Feed Interval 3]	I he smaller the value set, the longer the interval applied between each sheet.

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Model: Andromeda-P2 Date: 3-Oct-1					No.: RM0B1032
Subject: Supported paper size by ACD unit					by: Hiroaki Matsui
From: Sales Strategy Sect., 1st CP Business Dept.					
Classification:	Troubleshooting Part inform Mechanical Electrical Paper path Transmit/re Product Safety Other (rmation / /receive)	 ☐ Action r ⊠ Service ☐ Retrofit ⊠ Tier 2 	required manual revision information I Tier 0.5

Please add the following information to your field service manual in section:

2.Installation>Color Controller E-45(M519)>ACD Property (Auto Color Diagnosis property) Creation

and

2.Installation>Color Controller E-85(M520)>ACD Property (Auto Color Diagnosis property) Creation

Supported Paper

Paper attributes	Requirements
Paper size	279mm (11 inches) vertically or more x 420 – 700 mm (16.6 – 27.6 inches) horizontally (including custom and banner paper)
	297mm) are not supported
Paper weight	Paper weight "3" or grater
Paper type	Plain paper, recycled paper, high gloss paper, gloss
	paper, matte paper, or synthetic paper.
Paper color	White

NOTE:

- 1. You cannot use Auto Color Diagnosis function when printing on a sheet of paper that has been manually selected instead of selected from the media catalog.
- 2. Use Auto Color Diagnosis function is not recommended on paper weight "2" or less. Image on the back side of such paper may show through.

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Model: Andromeda-P2 Date: 9-Oct					ct-18 No.: RM0B1033		
Subject: Service Manual Correction: SC693-05, 06, 07, 08, 09					Prepared by: J. Ohno		
From: Sales Strate	gy Sect., 1st CP Business	Dept.					
Classification:	 ☐ Troubleshooting ☐ Part ☐ Mechanical ☐ Elect ☐ Paper path ☐ Tran ☐ Product Safety ☐ Other 		nation eceive)	 ☐ Action re ⊠ Service r ☐ Retrofit in ⊠ Tier 2 	quired nanual revision nformation Tier 0.5		

Service Manual Correction

Please apply the following corrections to your FSM, in section:

6. Troubleshooting > SC600 (Engine: Communication and Others)

The following SCs related to the Auto Color Diagnosis (ACD) unit were added/corrected:

SC693-05 (added)	SC693-06 (corrected)	SC693-07 (added)
SC693-08 (added)	SC693-09 (corrected)	

SC Code	Level	Error description / Symptom and possible cause / Solution
SC693-05	В	Auto Color Diagnosis Unit: VMCU board error
		VMCU board error
		1. Power cycle the machine Off/On.
		Confirm secure connection of the image transfer cable connecting VIF and ACD unit.
		3. Update all 6 firmware for the ACD unit to the latest versions.
		4. Replace the VMCU board.

SC Code	Level	Error description / Symptom and possible cause / Solution
SC693-06	В	Auto Color Diagnosis Unit: VICU board error
		VICU board error
		1. Power cycle the machine Off/On.
		Confirm secure connection of the USB cable connecting CRB and ACD unit.
		3. Update all 6 firmware for the ACD unit to the latest versions.
		4. Replace the VICU.

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SC Code	Level	Error description / Symptom and possible cause / Solution
SC693-07	В	Auto Color Diagnosis Unit: System error (software)
		 A software error was detected in the ACD unit. ACD unit defective Disconnection of the following cables: Image transfer cable between VIF and ACD unit USB cable between DTU and ACD unit Cable between IOB1 and ACD unit
		 USB cable between CRB and ACD unit 1. Power cycle the machine Off/On. 2. Update all 6 firmware for the ACD unit to the latest versions. 3. Check the above cable connections. 4. Replace the ACD unit.

SC Code	Level	Error description / Symptom and possible cause / Solution		
SC693-08	В	Auto Color Diagnosis Unit: System error (hardware)		
		A hardware error was detected in the ACD unit.		
		ACD unit defective		
		 Disconnection of the following cables: 		
		Image transfer cable between VIF and ACD unit		
		 USB cable between DTU and ACD unit 		
		 Cable between IOB1 and ACD unit 		
		 USB cable between CRB and ACD unit 		
		1. Power cycle the machine Off/On.		
		2. Update all 6 firmware for the ACD unit to the latest versions.		
		3. Check the above cables and replace if necessary.		
		4. Replace the ACD unit.		

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SC Code	Level	Error description / Symptom and possible cause / Solution
SC693-09	В	Auto Color Diagnosis Unit: Scan data transfer error
		 Communication error occurred between ACD unit and CRB. Disconnected FFC cable / USB cable BICU defective CRB defective TRB defective
		 Power cycle the machine Off/On. Update all 6 firmware for the ACD unit to the latest versions. Check the following cable connections: FFC between BICU, TRB and CRB USB cable between CRB and ACD unit Replace the above FFC and/or USB cable. Replace the TRB board. Replace the BICU board. Replace the HDD of the ACD unit.

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Roller

6

Model: Andromeda-P2			Date: 10-C	Oct-18	No.: RM0B1034
Subject: Trailing e Vacuum f	dge of Banner sheets dama Feed LCIT RT5120	Prepared by: Hiroaki Matsui			
From: 1st Tech Service Sect., PP Tech Service Dept.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (nation eceive)	 ☐ Action re ☐ Service n ☐ Retrofit in ☑ Tier 2 	quired nanual revision nformation Tier 0.5

SYMPTOM

The trailing edge of banner sheets is curled and damaged by the transport rollers when printed from the Vacuum Feed Banner Sheet Tray Type S9 or Multi Bypass Banner Sheet Tray Type S9.



CAUSE

The sheet buckles and the vertical transport exit rollers in the LCIT rub the trailing edge due to the slight difference in the paper transport speed between the mainframe and LCIT.



The problem occurs under the following conditions:

- 667~700mm banner sheets
- Weight 4, 5
- NOTE: The number of Vacuum Feed LCIT RT5120 units installed is irrelevant to the problem.



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SOLUTION

Update both of the following firmware as a set.

- Engine f/w: Ver.1.42:12 (M0B15160G) or newer
- Vacuum Feed LCIT RT5120 f/w: Ver.01.010:02 or newer (D3EW5260D_LCT1, D3EW5260D_LCT2, D3EW5260D_LCT3)

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Model: Andromeda-P2			Date: 16-C	Oct-18	No.: RM0B1035		
Subject: FSM Correction: Image Position Adjustment					Prepared by: J. Ohno		
From: Sales Strate	egy Section, 1st CP Busine						
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform Electrical Transmit/re Other (nation eceive)	Action re	quired nanual revision nformation Tier 0.5		

This bulletin replaces the following sections of the FSM:

4. Replacement and Adjustments > Image Adjustment > Image Positioning Adjustment After Replacing Parts

and

4. Replacement and Adjustments > Image Adjustment > Adjustment Related to Transport Precision

Image Positioning Adjustment After Replacing Parts

After replacing the parts described in the following section 'Adjustment Related to Transport Precision', make the same SP adjustments as that required when installing the mainframe (Image Position Adjustment after Installation).

After completing the SP settings, adjust the registration settings for the paper in use in Advanced Settings.

Adjustment Related to Transport Precision

After replacing any of the following parts, do Auto Adjust Image Position in Advanced Settings for both front and back sides of the page, to verify that the same registration precision is achieved before and after the replacement.

Imaging section

- Registration unit (Drawer unit)
- CIS in the registration unit
- PTR timing sensors (T-ACT/reflective)

Fusing section

- TIM-Mag unit
- Revolver (inside the TIM-Mag)
- · Paper cooling exit sensor, Exit junction sensor
- Upstream paper length measuring sensor (T-ACT), Downstream paper length measuring sensor (T-ACT)

Vote

This adjustment is also required after cleaning the downstream paper length sensor (T-ACT sensor) and PTR timing sensor (T-ACT sensor), as these sensors need to be removed for cleaning.

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Vote

Do Auto Adjust Image Position in Advanced settings for both front and back sides under the following conditions.

- Tray: Tray 1
- Type: Plain
- Weight: 5 (200~220gsm)
- Size: A3/DLT (A3 recommended)

Adjustments

The table below describes the adjustments required according to the parts replaced.

Adjustment required					Part rep	laced		
		Registr ation unit (drawer unit)	CIS in the registr ation unit	 Paper switch back unit Duple x units 	PTR timing sensor (T-ACT/ sub)	Revolver (in the TIM-Mag unit)	 Upstream paper length sensor (T- ACT) Downstrea m paper length sensor (T- ACT) Paper cooling exit sensor, Exit junction sensor 	TIM- Mag unit
a.	Optical axis correction of the PTR timing sensor	~	-	-	~	-	-	-
b.	Shading/skew adjustment after replacing CIS	~	~	-	-	-	-	-
C.	PTR unit angle correction (trailing edge skew adjustment)	~	-	-	-	-	-	-
d.	Glass scale tilt correction	-	-	\checkmark	-	~	-	-
e.	Correcting the sensor position	-	-	-	-	-	~	~
f.	Paper skew - trailing edge correction in sub scan direction	-	-	-	-	~	-	-
g.	Paper skew - trailing edge correction in main scan direction	-	-	-	-	~	-	-

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a. Optical axis correction of the PTR timing sensor

See "Troubleshooting for J080" (page.2534).

b. Shading/Skew adjustment after CIS replacement

See "Shading/Skew Adjustment after CIS Replacement" (page.1112).

c. PTR unit angle correction (trailing edge skew adjustment)

Do the following procedure after reinstalling or replacing the PTR unit or the registration unit, or if skew is observed at the trailing edge after installing or relocating the unit. This will optimize the pressure applied to the paper by the PTR unit.

Verifying the trailing edge skew

Print the trim pattern (SP2-109-003:14) on A3 paper and verify the amount of skew at the trailing edge using the equation below. Adjustment is required if skew exceeds ± 0.2 mm.

- Do the measurements on the premise that the paper is square; add or subtract accordingly.
- Convert to mm for DLT.

Skew at the trailing edge (S) = $(Lr - Ll) / Lh \times 297 \text{ mm}$



Adjustment Procedure

- 1. Remove the PTR unit.
- 2. Grip onto the drawer lock lever as you press the lock [A] at the rear of the drawer unit toward the direction indicated with the arrow. This will raise the PTR unit.



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Make sure to grip onto the drawer lock lever. Pressing the lock [A] without gipping onto the drawer lock lever will cause the PTR unit to snap up abruptly.





3. Use a wrench and screwdriver to adjust the PTR pressure plate screws at the sides of the plate.

(Content)

The pressure plate and the screws are marked with the factory-set positions. If the adjustment position becomes unclear, reset to the factory-set position, and then readjust.



• Using an 8 mm wrench, slightly loosen the nut [A] at the bottom, and then turn the screw [B].

IMPORTANT

- Make a 60 degree turn (two notches on the scale) at a time for the front and rear plates respectively.
- **DO NOT** turn the screw more than 120 degrees (four notches on the scale).

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Turn the screws as shown below depending on the skew direction.

• If the margin at the trailing edge is larger at the rear side (right) than the front side (left), turn the Front plate screw clockwise and the Rear plate screw counterclockwise.

Screw at the front (F): Turn clockwise.



Screw at the rear (R): Turn counterclockwise.





• If the margin at the trailing edge is larger at the front side (left) than the rear side (right), turn the Front plate screw counterclockwise and the Rear plate screw clockwise.

Screw at the front (F): Turn counterclockwise.



Screw at the rear (R): Turn clockwise.





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4. Turn the drawer lock lever counterclockwise to release the pressure of the PTR unit.



- 5. Put back the PTR unit and push in the drawer unit.
- 6. Print the trim pattern again and verify the results. Repeat the procedure until the skew falls within the tolerance \pm -0.2 mm.

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d. Glass scale tilt correction

The glass scale on the revolver is used for correcting registration in sub scan direction for jobs enabled of real-time registration correction. Replacing the revolver, TIM-Mag unit or paper exit unit will change the angle of the glass scale against the sheet and hinder proper sub scan registration correction.

When any of these components are replaced, correction value must be calculated and input to the SP to compensate for the skewed glass scale.



Before the adjustment, verify that glass scale scanning function works properly by doing the flowchart below.



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Adjustment Procedure

- **<u>1.</u>** Make sure that all doors are closed.
- 2. Set SP1-086-027 (CIS Interval Adj Value:SubScan) to "0" (to clear the value applied for the previous revolver).
- <u>3.</u> Go to Advanced Settings #1103 (Image Position Feedback Correction) and select [3: Detection Mark: Front & Back] to enable real-time registration correction.

Note

- Take note of the setting originally applied for #1103 as you will need to restore the original setting after completing the adjustment.
- This setting can also be specified in SP mode (SP1-055-001 to 010). However, note that the settings specified in Advanced Settings take priority.
- Apply the following recommended conditions:
 - Blank page job
 - Tray assignment using General Tray settings
 - Plain paper
 - Weight 5 (200~220gsm)
 - A3/DLT (A3 recommended)
- <u>4.</u> Print 20 pages of a blank page job from the Fiery controller. Verify that the registration marks are printed on four corners of the sheets.
- 5. Make measurements X and Y on the 1st and 20th sheets.
- 6. Calculate the adjustment value using the equation below:

Adjustment value (%) = $2 \times (Y_20 \text{ (mm)} - Y_1(\text{mm})) \div X(\text{mm}) \times 100 \text{ (%)}$



- Y indicates the margin between the leading edge of the paper and the leading edge of the registration mark.
- Suffixes "_20" and "_1" indicate the 20th sheet and 1st sheet.
- X indicates the width of the paper.
- All measurements are in millimeters.

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NOTE:

- The 1st sheet is not applied of real-time correction.
- The 20th sheet is applied of real-time correction on the premise that the glass scale is set perpendicular against the feed direction. However, in reality, the glass is not set perpendicular, which is why the adjustment is required.

Note

Sample scale (Silver linear scale 13005)

- A: large pitch : 1.0 mm
- B: small pitch: 0.5 mm
- C: line width : 0.19 mm



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7. Input the value obtained in Step 6 to SP1-086-027 (CIS IntervalAdjValue: MainScan: Scale Slope: skew).

Name	SP Number	Selection	
CIS IntervalAdjValue:MainScan:Scale Slope:skew	SP1-086-027	- Range: -1 to +1 (%)	
		- Increments: 0.001	
		- Initial: 0 (%)	

Shown below is an example of an adjustment.



- **<u>8.</u>** Repeat steps 4~7 until desired results are obtained. When adjusted properly, registration shift in sub scan direction on the 20th sheet should be close to 0.
- <u>9.</u> After completing the adjustment, restore the setting originally applied for #1103 in Advanced Settings.

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Example of a Registration Adjustment in Sub Scan Direction

- Example 1 explains the calculation for correcting a 0.21mm registration shift in sub scan direction toward the trailing edge.
- Example 2 for a 0.17mm registration shift in sub scan direction toward the leading edge.

Example 1





= -0.11

Example 2 X = 297 [mm]1st sheet $Y_{(1)} = 9.92 \text{ [mm]}$ b) 20th sheet $Y_{(20)} = 9.75 \text{ [mm]}$ b) 20th sheet $y_{(20)} = 9.75 \text{ [mm]}$ b) 20th sheet $2 * \frac{Y_{(20)} - Y_{(1)}}{X} * 100\% = 2 * \frac{9.75 - 9.92}{297} * 100\%$

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e. Correcting the sensor position

Replacing the TIM-Mag unit or the sensors contained in the unit (upstream paper length measuring sensor and cooling unit exit sensor) or the exit junction sensor or downstream paper length measuring sensor changes the positions of the sensors and affects the image scaling in sub scan direction for jobs enabled of real-time registration correction.

To prevent this, a correctional value needs to be calculated and input to the SP.



NOTE:

- The upstream and downstream paper length measuring T-ACT sensors are used for detecting with high accuracy. Selecting [1: High accuracy] in Advanced Settings #1101-19 will specify the job to run using these T-ACT sensors.
- The cooling unit exit and exit junction reflective sensors are used for detecting with normal accuracy. Selecting [0: Normal] in Advanced Settings #1101-19 will specify the job to run using these reflective sensors.
- SP1-087-001 (MeasurementSN IntervalAdjvalue: reflective Sensor) corresponds with 'Normal' accuracy.
- SP1-087-002 (MeasurementSN IntervalAdjvalue: TACT) corresponds with 'High' accuracy.
- T-ACT sensors are used for white paper and reflective sensors are used for color paper and transparencies. These sensors are selected automatically according to the media attributes when a custom paper is selected from the library.

Adjusting the distance between the Upstream and Downstream paper length measuring T-ACT sensors

- 1. Change the value in SP1-087-002 (MeasuremtSN IntervalAdjValue:T-ACT) to '1.00.'
- 2. In Advanced Settings #1101-19, select High Accuracy.
- **<u>3.</u>** Do Auto Image Position Adjustment for the front side and print out 11 sheets using the following paper:



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	Tray	Tray 1 using paper library			
	Type / Weight	Plain / Weight 5 (200~220g	sm)		
	Size	A3/DLT			

<u>4.</u> On the last 11th sheet printed out in Step 3, measure the distance between the trailing edge of the paper and trailing edge of the printed image at A1 and A2 (in units of mm).

Target length for A3 : 400mm Target length for SRA3: 430mm



5. Calculate the correction value using the measurements obtained in Step 4 and the equation below, and input the correction value to SP1-087-002 (MeasuremtSN IntervalAdjValue:T-ACT).

Equation: 11 - (A1+A2) / 2

Example when the measurements of A1 and A2 are both 9.1 mm:

- 11 (9.1+9.1) / 2 = 11 - (18.2) / 2 = 11 - 9.1 = 1.9 → Input "1.9" to SP1-087-002.
- 6. Repeat steps 2 through 5 until the target length is achieved. If results are unsatisfactory, adjust the value input to SP1-087-002.
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Adjusting the distance between the Cooling exit and Exit junction reflective sensors

- <u>1.</u> Change the value in SP1-087-001 (MeasuremtSN IntervalAdjValue: Reflective Sensor) to '1.00.'
- <u>2.</u> In Advanced Settings #1101-19, select Normal.

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<u>3.</u> Do Auto Image Position Adjustment for the front side and print out 11 sheets using the following paper:

Tray	Tray 1 using paper library
Type / Weight	Plain / Weight 5 (200~220gsm)
Size	A3/DLT

<u>4.</u> On the last 11th sheet printed in Step 3, measure the distance between the trailing edge of the paper and trailing edge of the printed image at A1 and A2 (in units of mm).

Target length for A3 : 400mm Target length for SRA3: 430mm



5. Calculate the correction value using the measurements obtained in Step 4 and the equation below and input the correction value to SP1-087-001 (MeasuremtSN IntervalAdjValue: Reflective Sensor).

Equation: 11 - (A1+A2) / 2

Example when the measurements of A1 and A2 are both 9.1 mm:

```
11 - (9.1+9.1) / 2
= 11 - (18.2) / 2
= 11 - 9.1
= 1.9
→ Input "1.9" to SP1-087-001.
```

6. Repeat steps 2 through 5 until the target length is achieved. If results are unsatisfactory, adjust the value input to SP1-087-001.

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f. Paper skew - trailing edge correction in sub scan direction

When the glass scale on the revolver scans the registration marks printed on the margins of jobs enabled of real-time registration correction, the leading edge enters straight, but the paper may skew before the trailing edge passes through the scale, resulting in a slanted image. The problem is caused by the fluctuation of pressure applied by the paper transport rollers.

To prevent this, you will need to input a correction value to the SP according to the position (or angle) of the new revolver installed. The correction will apply to the image writing process by the laser unit, to compensate for the slant detected by the glass scale.

- Adjustment 'f' in this section is for correcting the slant in sub scan direction.
- Adjustment 'g' in the following section is for correcting the slant in main scan direction.



- 1. Set SP1-093-001 (Trailing Edge Main Skew Adj.: Standard Image) to '0 (default).'
- 2. Set the following SPs to '1.'

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- SP1-053-001 (Auto Reg Exec Conditions: No. of Sheets: Side 1 Adj.)
- SP1-053-003 (Auto Reg Exec Conditions: No. of Sheets: Side 2 InitAdj.)
- SP1-053-007 (Auto Reg Exec Conditions: No. of Sheets: Side 2 Front & Back Adj.)
 - This sets the number of sheets printed in Auto Adjust Image Position to '4.'
 - Restore the default value '10' after completing the adjustment.
- <u>3.</u> From Advanced Settings, do Auto Adjust Image Position (for both sides) using the following paper.
 - Tray : Tray 1
 - Type : Plain
 - Weight : 5 (200~220gsm)
 - Size : A3/DLT (A3 recommended)
- <u>4.</u> Input the adjustment value to SP1-093-001 (Trailing Edge Main Skew Adj.) by referring to the notes below and the confirmation sheet printed out in Step 3.
 - The image shifts 0.1mm in sub scan direction for every "15" input to this SP.
 - To shift the image toward the leading edge, add to the present value.

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- To shift the image toward the trailing edge, subtract from the present value.
- The default of this SP is '0' and the adjustable range is '-200 to +200.' However, make the adjustment within '-100 to +100.' Adjustment exceeding this range has the risk of causing trailing edge skews and other unexpected problems.
- 5. View the sheet from the back side and see through the sheet, to check if the registration at the corners match between the front and back sides. Image on the back side shifts to match with that on the front.



To shift the image on the Back side 0.2mm toward the Leading edge, **add** '30' to the present value.



To shift the image on the Back side 0.2mm toward the Trailing edge, **subtract** '30' from the present value.



Note

The adjustment can also be performed by doing the calculation below. Note that this procedure is slightly complex.

On the last sheet printed in Step 3, measure (in units of mm) the distance at the following locations on each side of the sheet.

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Front side



Callout	Description
C1	Distance between the leading edge of the paper and left (operator side) leading edge of the printed image on the front side
C2	Distance between the leading edge of the paper and right (non-operator side) leading edge of the printed image on the front side
C3	Distance between the trailing edge of the paper and left (operator side) trailing edge of the printed image on the front side
C4	Distance between the trailing edge of the paper and right (non-operator side) trailing edge of the printed image on the front side

Back side



Apply the measured values to the following equation to calculate the correction value.

● Equation: 75 x (((C1-C2) – (D3 – D4)) + ((C4-C3) – (D2 – D1))



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• Shown below is an example.

	Front					
C1	9.8 mm D1 9.4 mm					
C2	9.8 mm	D2	9.5 mm			
C3	9.4 mm	D3	10.5 mm			
C4	9.4 mm	D4	10.25 mm			
75 x (((C = 75 x ((= 75 x ((= 75 x (-	(0.1-C2) - (D3 - D4)) (0.8-9.8) - (10.5 - 1) (0 - 0.25) + (0 - 0.1) (0.35)	+ ((C4- 0.25)))	-C3) – (D2 – D1)) + ((9.4-9.4) – (9.5	– 9.4))		
= -26.25 (Round up the decimal.)						
≈ "-27"						

- → Input '-27' to SP1-093-001.
- 6. Restore the default value '10' in the following SPs.
 - SP1-053-001 (Auto Reg Exec Conditions: No. of Sheets: Side 1 Adj.)
 - SP1-053-003 (Auto Reg Exec Conditions: No. of Sheets: Side 2 InitAdj.)
 - SP1-053-007 (Auto Reg Exec Conditions: No. of Sheets: Side 2 Front & Back
- <u>7.</u> Do Auto Adjust Image Position (for both sides) again to check the results. If results are unsatisfactory, repeat Step 4.

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g. Paper skew - trailing edge correction in main scan direction

In this adjustment, you will correct the slant in main scan direction.



- 1. Set SP1-092-001 (Slant Adjustment) to '0 (default).'
- 2. Set the following SPs to '1.'
 - SP1-053-001 (Auto Reg Exec Conditions: No. of Sheets: Side 1 Adj.)
 - SP1-053-003 (Auto Reg Exec Conditions: No. of Sheets: Side 2 InitAdj.)
 - SP1-053-007 (Auto Reg Exec Conditions: No. of Sheets: Side 2 Front & Back Adj.)
 - This sets the number of sheets printed in Auto Adjust Image Position to '4.'
 - Restore the default value '10' after completing the adjustment.
- <u>3.</u> From Advanced Settings, do Auto Adjust Image Position (for both sides) using the following paper.
 - Tray : Tray 1
 - Type : Plain
 - Weight : 5 (200~220gsm)
 - Size : A3/DLT (A3 recommended)
- <u>4.</u> Input the adjustment value to SP1-092-001 (Slant Adjustment) by referring to the notes below and the confirmation sheet printed out in Step 3.
 - The image shifts 0.1mm in sub scan direction for every "15" input to this SP.
 - To shift the image toward the leading edge, add to the present value.
 - To shift the image toward the trailing edge, subtract from the present value.
 - The default of this SP is '0' and the adjustable range is '-200 to +200.' However, make the adjustment within '-100 to +100.' Adjustment exceeding this range has the risk of causing trailing edge skews and other unexpected problems.
- 5. View the sheet from the back side and see through the sheet, to check if the registration at the corners match between the front and back sides. Image on the back shifts to match with that on the front.



Vote

The adjustment can also be performed by doing the calculation below. Note that this procedure is slightly complex.

On the last sheet printed in Step 3, measure (in mm unit) the distance at the following locations on each side of the sheet.

Front



Callout	Description
E1	Distance between the left (operator) side of the trailing edge of the paper and left trailing edge of the printed image on the front.

Back



Callout	Description
E2	Distance between the left (operator) side of the leading edge of the paper and left leading edge of the printed image on the back.

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Apply the measured values to the following equation to calculate the correction value.

- Equation: 200 x (E1-E2)
- Example below is a calculation when the measurements are E1=9.4 mm, E2 =9.2mm.
 - 200 x (9.4-9.2)
 - = 200 x 0.2

= 40

- → Input the correction value '+40' to SP1-092-001.
- 6. Restore the value to "10" (the value before adjustment) in the following SPs.
 - SP1-053-001 (Auto Reg Exec Conditions: No. of Sheets: Side 1 Adj.)
 - SP1-053-003 (Auto Reg Exec Conditions: No. of Sheets: Side 2 InitAdj.)
 - SP1-053-007 (Auto Reg Exec Conditions: No. of Sheets: Side 2 Front & Back Adj.)
- <u>7.</u> Do Auto Adjust Image Position (for both sides) again to check the results. If results are unsatisfactory, repeat Step 4.

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Model: Andromed	Oct-18	No.: RM0B1036			
Subject: Troublest	Prepared	by: Hiroaki Matsui			
From: 1st Tech Se	rvice Sect., PP Tech Servic	e Dept.			
Classification:	 ☐ Troubleshooting ☐ Part information ☐ Mechanical ☐ Electrical ☐ Paper path ☐ Transmit/receive ☐ Product Safety ☐ Other () 			Action re Service n Retrofit ir Tier 2	quired nanual revision nformation

SYMPTOM

Fails to generate the ACD properties and results in an error. The error reappears if attempted to generate the ACD properties again.

ACD Data	×
Failed to update Auto Color Diagnosis data. Error Code: 1	
Paper: A6 Plain Current ACD status: Disabled Date/Time:	
Retry	

CAUSE

Any of the following:

- > TIM-Red is dirty.
- > Printout is stained with toner, which can occur sporadically.
- > Bug in PIRAMID.

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SOLUTION

For Error Codes 1~50

- Retry generating the ACD properties a few times.
- If the problem does not resolve after a few retries, refer to the solution described in \geq the table 'Error Codes' below.
- If the problem still does not resolve, capture the following logs for investigation: \geq
 - ACD properties logs
 - ACD unit system logs

See pages 4~7 for the procedures on how to capture the above logs.

For Error Codes other than 1~50

- \geq Refer to the solution described in the 'Error Codes' table below.
- If the problem does not resolve, capture both of the above logs for investigation. \geq

Error Codes

Note: Error codes 1~50 can be caused by toner stains on the printouts or TIM-Red, which can occur sporadically. Therefore, retry generating the ACD properties a few times before doing the solutions described below.

Category	Sub category	Error code	Symptom	Solution
Image processing	Paper	1	Failed to detect the background of TIM-Red from the scanned image.	1. Clean the TIM-Red.
		2	Failed to detect the edge of the master page.	1. Power cycle the machine Off/On.
		3	Failed to detect the edge of the scanned page.	 Verify no folds/wrinkles/toner stains on the printed test chart. Clean the TIM-Red. Power cycle the machine Of/On.
		4	The detected paper edge position is invalid.	 Verify no folds/wrinkles/toner stains on the printed test chart. Clean the TIM-Red. Power cycle the machine Off/On.
		5	The measured paper color is invalid.	 Verify no folds/wrinkles/toner stains on the printed test chart. Clean the TIM-Red. Power cycle the machine Off/On.
	Position marker	6	Failed to identify the position marker on the master image.	1. Power cycle the machine Off/On.
		7	Failed to identify the position marker on the scanned image.	 Verify no folds/wrinkles/toner stains on the printed test chart. Clean the TIM-Red. Power cycle the machine Off/On.



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			Failed to identify the page orientation.	1. 2. 3.	Verify no folds/wrink the printed test char Clean the TIM-Red. Power cycle the mad	les/toner stains on t. chine Off/On.
		9	Page orientation does not match between master image and scanned image.	1. 2. 3.	Verify no folds/wrink the printed test char Clean the TIM-Red. Power cycle the mad	les/toner stains on t. chine Off/On.
		10	Image orientation does not match between pages.	1. 2. 3.	Verify no folds/wrink the printed test char Clean the TIM-Red. Power cycle the mad	les/toner stains on t. chine Off/On.
	Shape	11	Over skew	1. 2. 3.	Verify no folds/wrink the printed test char Clean the TIM-Red. Power cycle the mad	les/toner stains on t. chine Off/On
	parameter	parameter 12	Scaling ratio error	1. 2. 3.	 Verify no folds/wrinkles/toner stains on the printed test chart. Clean the TIM-Red. Power cycle the machine Off/On. 	
	Color conversion		Color LUT grid point generation error	1.	Power cycle the mad	chine Off/On.
	(Color LUT; lookup table)	14	Invalid CMYK color value	1.	Power cycle the mad	chine Off/On.
	Input image	15	Size does not match among master images.	1.	Power cycle the mad	chine Off/On.
		16	Size does not match among scanned images.	1.	Power cycle the mad	chine Off/On.
	Specific condition	50	Scaling ratio calculation error	1. 2. 3.	Verify no folds/wrink the printed test char Clean the TIM-Red. Power cycle the mac	les/toner stains on t. chine Off/On.
		128	Unexpected ACD property generation library error	1. 2.	Clean the TIM-Red. Power cycle the mad	chine Off/On.
		129	File processing error	1. 2.	Clean the TIM-Red. Power cycle the mad	chine Off/On.
Software		- 130 - 131 132	Input parameter error	1. 2.	Clean the TIM-Red. Power cycle the mad	chine Off/On.
	-		Output parameter error	1. 2.	Clean the TIM-Red. Power cycle the mad	chine Off/On.
			Failed to generate correctional data for main scan deviation.	1. 2.	Clean the TIM-Red. Power cycle the mad	chine Off/On.
		134	ACD property generation start command error	1. 2.	Clean the TIM-Red. Power cycle the mad	chine Off/On.

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Capturing ACD properties logs and ACD unit system logs for investigation

The 'ACD properties logs' and 'ACD unit system logs' can be captured either using an SD card or Ethernet cable. The following section describes the procedures separately depending on the method.

- **A.** Capturing ACD properties log with an SD card
- **B.** Capturing ACD unit system logs with an SD card
- C. Capturing ACD properties logs and ACD unit system logs with an Ethernet cable

Preparation:

- 1. Replicate the symptom.
- 2. Click 'Cancel' on the error dialog. (Do not click 'Retry' as it will overwrite the logs.)



A. Capturing ACD properties logs with an SD card

- 1. Turn Off the machine power.
- Copy and paste the debug file 'vpupmplog' attached below to the root directory of the SD card. (Right-click → Copy → Right-click on the root directory of the SD card → Paste.)



NOTE:

- > You can use a USB memory device instead of an SD card.
- > SD card (or USB memory device) must have at least 2 GB capacity.
- > If you will be using an SD card, an SD card-to-USB adaptor is required.
- Make sure the SD card (or USB memory device) is empty and does not contain any files.
- 3. Remove the front cover of the ACD unit.
- 4. Attach the SD card to the USB adaptor and connect it to the USB slot on the ACD unit.

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5. Turn On the machine power. Log capturing will start automatically. **NOTE:** SC693-xx may occur, but you may ignore the SC.

- 6. Wait for the SD card access lamp and ACD unit to turn Off, and then turn Off the machine power.
- 7. Remove the SD card from the ACD unit.
 - **NOTE:** If you will be using the same SD card (or USB memory device) to capture the 'ACD unit system logs' described in the following section, remove the ACD properties logs to a different location and delete the debug file 'vpupmplog' from the SD card.

B. Capturing ACD unit system logs with an SD card

Refer to RTB#RM0B1023 'FSM Correction: Auto Color Diagnosis Unit: Storing Service Logs on SD Card' for the procedure.

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Capturing logs with an Ethernet cable

By connecting your laptop PC to the ACD unit with an Ethernet cable, you can capture both ACD properties logs and ACD unit system logs.

- 1. Download the application 'WinSCP7' from [https://winscp.net/eng/index.php] and install it on your laptop.
- 2. Connect the Ethernet cable to your laptop and the other end to the connector [A] on the ACD unit.



- 3. On your laptop, go to Control Panel > Network and Sharing Center > Change Adapter Setting > Local Area Connection > Property
- 4. Select Internet 'Protocol Version 4 (TCP/IPv4)' and click Properties.
- 5. Make the IP settings as shown below and specify 192.168.1.10 as your laptop IP address.



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- 6. Open WinSCP.
- Set up the following new site and connect: Host name: 192.168.1.2 User name: root Password: ricoh
- Access directly to the following: System log : /home/ricoh/piramid/vpu/release/log Properties log: /home/ricoh/piramid/vpu/release/ProfileData
- 9. Copy the files having the date/time close to that of when the symptom occurred.
- 10. If the ACD Unit System FW is Ver.01.005.01 (M5185234I) or newer, also access directly to the following.

ACD property Error Log:

/home/ricoh/piramid/vpu/release/ProfileData/ErrPmpImages

11. Copy the entire folder (like folder [A] in the example shown below) having the date/time close to that of when the symptom occurred.



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Model: Andromeda-P2			Date: 18-0	Oct-18	No.: RM0B1037
Subject: Troubleshooting: How to reduce gloss level			Prepared by: H Kawamura		
From: PPCS Section, CIP Product Quality Management Dept.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (nation eceive)	Action re Service r Retrofit in Tier 2	quired nanual revision nformation Tier 0.5

The output gloss level is higher on the Andromeda-P2 compared to its predecessor.

This bulletin announces the procedures on how to reduce the gloss level by adjusting the fusing temperature for customers who prefer lower gloss.

Symptom

The gloss level of solid images is higher than expected; higher than the predecessor.

Cause

Toner characteristics are different due to the change in toner.

Procedure

Note:

- The procedure is purposed mainly for Matte-coated media.
- The effect is lower when applied to Plain or Gloss-coated media.
- For Plain and Gloss-coated media, skip steps 2 and 3.
- 1. Create a custom paper either using a generic setting or an entry specific to the vendor from the master library.
- 2. In Advanced Settings #1241-01 and -03, decrease the fusing temperature 10° C for Wt. 1~4, 15°C for Wt.5~9.
- 3. In job properties, select [Toner reduction] for Fiery or [Toner/Ink limit: Medium] for Totalflow/Prinect.

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Job Properties		_	
Ш	Job: Ricoh DQV SRA3 ver1.1.pdf V	Presets:	~
	Adobe PDF Print Engine Preferred		R <u>e</u> set
JOB INFOMEDIA	Use maximum printer density	Halftone mode: 200 dot + fine text	^
LAYOUT	🔶 🗌 Image smoothing	Brightness:	
 COLOR IMAGE FINISHING VDP 	Toner reduction	Resolution: 1200 dpi 🗸 Halftone simulation: Off	
SUMMARY	Print by color selection		_
	☑ Cyan (C)	Black (K)	~
Job Properties	for job: Speaker Poster.pdf		

Basic Settings	Color			Hide views
Job Setup	BASIC COLOR SETTINGS			
BB Layout	Color/Black and white	7	Print selected planes	7
Paper	Color	*	All [CMYK, Special effect]	-
Marks and Bleeds	Control bar	7		
Finishing	Off	Ψ.		
Covers	INPUT PROFILES Reference profile	,		
Color	None	Ţ		
Print Quality * Fifth Station	-> PRINTER PROFILES Spot color matching	?		
Watermark	On	¥.		
Header/Footer				
	Color substitution	?	Black (text/line art)	?
	Off		Normal	*
	Toner/Ink limit	2	Black/Gray reproduction	7
	Medium	÷	Off	-
			> Show details	

Note:

This setting reduces the maximum amount of toner transferred to the sheet from 260% to 200% (on the Fiery) or to 220% (on the Totalflow/Prinect. **For images**

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composed of less than 200% (Fiery) or 220% (TotalFlow/Prinect), this setting will not take effect in reducing the gloss level. If this setting is NOT accepted, increase #1241-01 and -03 by 5 degree.

- 4. Print 5 copies of the customer's job to check the gloss level, fuseability and color quality on the 1st and 5th sheets.
- 5. If the gloss level is still higher than target, decrease the fusing temperature by another 5°C in #1241-01 and -03.

NOTE: Do not decrease the fusing temperature if proper fuseability is not maintained.

- 6. Wait at least 5 minutes for the fusing unit to cool down (to prevent residual heat from affecting the print quality).
- 7. Repeat steps 4 through 6 to find the optimum setting.

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Model: Andromeda-P2			Date: 24-Oct-18		No.:RM0B1038c	
The items in <i>bold italics</i> were corrected or added. RTB Reissue						
Subject: Change in SP settings that require overwriting at installation				Prepared by: Hiroaki Matsui		
From: 1st Tech Se	ervice Sect., PP Tech Ser	rvice Dept.				
Classification:	 Troubleshooting Mechanical Paper path 	Part inforn	nation eceive	 Action required Service manual revision Retrofit information 		
	Product Safety	Other (Firi Update Ir	nware Iformation)	🛛 Tier 2	☐ Tier 0.5	

Due to the Firmware Bug found in Engine f/w ver.1.501:12 (M0B15160H), explanation in this RTB has been changed. See *RTB#RM0B1053b* about the Firmware Bug found in Engine f/w ver.1.501:12 (M0B15160H) more in detail.

With Engine f/w ver.1.501:12 (M0B15160H) *or newer*, the SP settings that require overwriting at installation were changed. See tables below for the new procedures.

Case 1	Procedure
Engine f/w ver.1.501:12	Overwriting the SP settings is no longer required.
(M0B15160H) <i>or newer</i> was installed at the factory.	<i>Upgrade the f/w to the official Engine f/w Ver.1.521:12 (M0B15160K.fwu) or newer.</i>
NOTE: See APPENDIX-1 for the	However, 54 SP settings still remain and no need to overwrite again.
cut in s/n of the Imaging section [A] installed with the above f/w version.	Procedure below is same even though after upgrading the f/w.
	However, make sure that the s/n of the Imaging section [A] and Fusing section [B] are in 'pair' as follows.
	Ex. 5018F510008 and 5018F520008
	If the s/n of the two sections are not in pair, do the following:
	(1) Check if the s/n of the Fusing section [B] appears in the list contained in the batch file attached in APPENDIX-2 for each region. If it appears in the list, use the debug cable and overwrite the Imaging section [A] with the batch file. See RTB# RM0B1021 for the procedure.

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Model: Andromeda-P2		Date: 24-Oct-18	No.:RM0B1038c
	(2) If the s/n appear ir describe taped ab	of the Fusing section In the list, input all the Id on the "SP Data Lis ove the ACD Unit.	[B] does not SP values t (Exit Unit)"
	For the procedure, see FSM section: Install > Main Machine Installation > Installation Procedure > Serial Number Check > If the numbers are not the same.		on: Installation allation k > If the



Case 2	Procedure
Engine f/w was updated from ver.1.42:12 (M0B15160G) or older to ver.1.501:12 (M0B15160H) <i>or newer</i> and the 54 SP settings were overwritten using the batch file and debug cable when the machine was installed.	No procedure required. Upgrade the f/w to the official Engine f/w Ver.1.521:12 (M0B15160K.fwu) or newer. However, 54 SP settings still remain and no need to overwrite again.

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Model: Andromeda-P2	Date: 24-Oct-18	No.:RM0B1038c

Case 3	Procedure
Engine f/w was updated from ver.1.42:12 (M0B15160G) or older to	<i>Upgrade the f/w to the official Engine f/w Ver.1.521:12 (M0B15160K.fwu) or newer.</i>
ver.1.501:12 (M0B15160H) <i>or newer</i> and the 54 SPs <u>are not overwritten</u>	Overwrite the 54 SP settings with the batch file and debug cable.
cable.	NOTE: See APPENDIX-2 and use the batch file attached to overwrite the 54 SP settings according to the s/n of the Fusing section.

NOTE:

1. Engine f/w Ver.1.521:12 (M0B15160K.fwu) has been already posted on FW download center, because this is the official version.

2. When upgrading the Engine f/w Ver.1.521:12 (MOB15160K.fwu), <u>upgrade the</u> following FWs as a set. Otherwise SC693-02 may appear in some cases.

ACD Unit System Ver 01.006.00 (M5185234J) or newer.

APPENDIX-1: Cut-in S/N of the Imaging Section

See below for the cut-in s/n of the Imaging section installed with Engine f/w ver.1.501:12 (M0B15160H) or newer at factory.

Pro C9200

M0B117	Andromeda-P2a NA(R)	5018FA10001
M0B126	Andromeda-P2a EU(R)	5018FA30001
M0B128	Andromeda-P2a AP(R)	5018FA50019

Pro C9210

M0B217	Andromeda-P2b NA(R)	028FA10011
M0B226	Andromeda-P2b EU(R)	5028FA30014
M0B228	Andromeda-P2b AP(R)	5028FA50002

Reissued: 17-Dec-18		
Model: Andromeda-P2	Date: 24-Oct-18	No.:RM0B1038c

APPENDIX-2: Batch file for overwriting the 54 SP settings by s/n of Fusing section



Unzip the batch file attached below according to your region and identify the batch file for overwriting the 54 SP settings. The filename is consisted of the s/n of the Fusing section.

For North America

Batch file_NA_106uni..zi

For Europe

Batch file_EU_165uni..zi



Batch file_AP_49uni..zip

Technical Bulletin

PAGE: 1/2

Model: Andoromeda-P2		Date: 25-C	Oct-18	No.: RM0B1039	
Subject: Manual Correction: White areas inside halftone images at 310mm interval			Prepared	by: Hiroaki H Matusi	
From: 1st Tech Se	rvice Sect., PP Tech Service	e Dept.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform Electrical Transmit/re Other (nation eceive)	Action re	quired nanual revision nformation

Service Manual Correction

Please add/correct the descriptions in blue in the following section of the Field Service Manual:

6. Troubleshooting > Image Quality > Image Quality 003: Image Loss > White areas inside halftone images at 308-mm intervals

White areas inside halftone images at 310mm intervals

Symptom

White areas appear inside halftone images at 310mm intervals.

Figure 1. Example of abnormal image



[A]: White areas appear inside halftone images at 310mm intervals.

[B]: Feed direction

Cause

Corona products emitted from the charger unit react to the lubricant on the surface of the OPC drum and this causes abnormal electric potential, which leads to the appearance of white areas. Correct it by removing the objects on the OPC drum surface.

Action

- 1. Print the pattern SP2-109-003-12 in each of Black/Cyan/Magenta/Yellow on A3 or DLT sheets of paper to identify which color the white areas appear on.
- 2. In [Adjustment Settings for Operators], execute 0509 [Execute Photoconductor



Technical Bulletin

PAGE: 1/1

Model: Andoromeda-P2 Date: 25		Date: 25-C	Oct-18	No.: RM0B1040	
Subject: Correction on Operating Instructions <troubleshooting:tcru oru=""></troubleshooting:tcru>			Prepared Matsui	by: Hiroaki H	
From: 1st Tech Se	rvice Sect., PP Tech Servic	e Dept.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform Electrical Transmit/re Other (nation eceive)	Action re Service r Retrofit ir	quired nanual revision nformation X Tier 0.5

The following section of the [Operating Instructions **Troubleshooting: TCRU/ORU]** was found to be incorrect. Please inform your customer of the correction, if your customer is a TCRU/ORU user.

7. Image Quality Problem: Full Page > Uneven Density > Uneven Image Density

Note: The descriptions in red were corrected.

(C) The density is uneven in the direction perpendicular to the paper feed direction at regular intervals.

Affected area	Solution
Periodic vertical density fluctuation	 From the 05: [Machine: Maintenance] group of the [Adjustment Settings for Operators] menu, select 0508: [Execute Developer Refreshing]. If the problem occurs only with black images, execute [Black]. If the problem occurs with any other color, execute [All Colors].
	2. Make a test print and check the results. If the problem solves, stop.
	 In the 02: [Machine: Image Quality] group on the [Adjustment Settings for Operators] menu, select 0201: [Execute Image Quality Adjustment] and execute [Density Difference: With Fd].
	4. If the problem persists, contact your service representative.



Model: Andromeda-	-P2		Date: 26-00	ct-18	No.: RM0B1041
Subject: Troublesho	oting: SC695-01: ID senso	or SPI communi	cation error	Prepared by	r: J. Ohno
From: Sales Strateg	y Sect., 1st CP Business D	Dept.			
Classification:	Troubleshooting	Part inform	nation	Action re	quired
	Mechanical	Electrical		Service r	nanual revision
	Paper path	Transmit/r	eceive	🗌 Retrofit i	nformation
	Product Safety	🗌 Other ()	🛛 Tier 2	Tier 0.5

SYMPTOM

SC695-01 (ID sensor SPI communication error)

CAUSE

Ground fault occurs after replacing with a new ground plate (p/n: M0B16466) contained in 'Paper transfer cleaning unit 3' of the PTR unit, because the ground plate is not installed correctly and is not in contact with the bushing.





SOLUTION

Set the ground plate correctly in the following procedure.

- 1. Remove the PTR unit. (FSM: page.835)
- 2. Remove the paper transfer cleaning unit 3. (FSM: page.840)
- 3. Place the paper transfer cleaning unit 3 on a flat surface. Then, remove the screws on the upper side of the cover and on the rear side. (Screw x3)



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Model: Andromeda-P2		Date: 26-Oct-18

4. Flip the unit to remove the screws at the bottom. (Screw x4)



- (J) X4
- 5. Release the pawls and lift to remove the cover [A].



Note: Make sure to hook the pawls when putting back the cover, or waste toner will scatter.

6. Remove this gear.





Date: 26-Oct-18

7. Loosen the screw fixing the ground plate.



8. Shift the ground plate toward the bushing so that they contact, and then refasten the screw.



9. Put back the unit by following the above steps in reverse order.

Reissued: 9-Dec-2019

Model: Andromeda-P2	Date: 1-Nov-18	No.: RM0B1042c
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RTB Reissue

This bulletin is a revision of RMB1042b (Troubleshooting: Text characters at the TE appear blurred). For the sake of legibility, the entire bulletin was rewritten instead of describing the additions/corrections in bold italic.

Subject: Edges toward the trailing side of texts appear blurry		Prepared by: Masami Okamoto		
From: Service Planning Sect., Global Engineering Support Dept.				
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/rec Other (tion eive)	 Action required Service manual revision Retrofit information X Tier 2

SYMPTOM

The edges toward the trailing side of halftone texts appear blurry.



The edges toward the trailing side (affected) are circled in red and leading side (unaffected) in blue.

- The symptom is especially noticeable with light halftone texts.
- The risk of the problem is higher in high-temperature and high-humidity environment (because the development capacity increases).
- The same problem is also announced for Pro C9200/9210 in bulletin #RM0B1042.

CAUSE

The tip of the carrier is not covered with sufficient amount of toner when developing the edges of the text toward the trailing side.

For detail of the mechanism, see last page.

Reissued: 9-Dec-2019

Model: Andromeda-P2	Date: 1-Nov-18	No.: RM0B1042c
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SOLUTION

1. From the Adjustment Settings for Operators menu, do **0201: 05** [Execute Image Quality Adjustment: Color Registration].

NOTE:

• The purpose of running the color registration adjustment is to confirm the symptom so as not to mix up with color registration problems. If hard to distinguish, print the same job in two different orientations by rotating the top and bottom edges 180 degrees.

If the blur appears at the edge toward the trailing side of the texts as in Fig.2 below even after rotating 180 degrees, it is not a color registration problem.



- For users who own the Fiery Graphic Arts Package Premium Edition, enabling the **Auto trapping** print option is also helpful in resolving color registration problems.
- 2. Do color calibration.
- 3. On the Fiery controller, set the halftone mode to **200-dot** or **175-dot**. 175-dot is more effective and recommended.

If your customer has a spectrophotometer, it is suggested to create a new calibration set using the spectrophotometer based on the new screen setting.

Note that applying a low screen setting (200-dot or 175-dot) may cause the edges of texts to appear jaggy. If they appear jaggy, make the following setting on the Fiery controller:

• Edge enhancement **On**

If edge enhancement causes the edges to appear too clear, make the following SP modification, to reduce the density at the edges.

- SP 5-770-027 [DTU edge0_beta_en] : 255 → 150
- SP 5-770-080 [DTU edge1_beta_en] : 255 → 150
- SP 5-770-133 [DTU edge2_beta_en] : 255 → 150
- SP 5-770-186 [DTU edge3_beta_en] : 255 → 150

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Power cycle the machine Off/On for the SP modification to take effect.

If the problem resolved, do color calibration or create a new color profile and stop the procedure.

If the problem does not resolve, continue.

- 4. Make the following SP settings.
 - SP 2-213-002 [Set Dev AC Vpp: C] : 400 → 200
 - SP 2-213-003 [Set Dev AC Vpp: M] : 400 → 200
 - SP 2-213-004 [Set Dev AC Vpp: Y] : 400 → 200
- 5. From the Adjustment Settings for Operators menu, do **0201: 04** [Execute Image Quality Adjustment: Density Difference: With Feed].
- 6. Do color calibration.

If the problem resolved, stop the procedure. If the problem does not resolve, continue.

7. Modify the factory-use SP settings below using the attached batch file 'Background Pot 100V.txt'.



- SP 3-621-012 [Background Pot Set C] : 100
- SP 3-621-013 [Background Pot Set M] : 100
- SP 3-621-014 [Background Pot Set Y] : 100
- SP 3-621-062 [Background Pot Set Lower Limit C] : 90
- SP 3-621-063 [Background Pot Set Lower Limit M] : 90
- SP 3-621-064 [Background Pot Set Lower Limit Y] :90
- SP 3-623-174 [LD power Set Intercept (alpha) CMY] :-0.4633
- SP 3-623-175 [LD power Set Intercept (beta) CMY] : 56.36
- SP 3-623-176 [LD power Set Intercept (gamma) CMY] :-1675
- SP 3-623-184 [LD power Set VI Calc Intercept (alpha)] :-0.02
- SP 3-623-185 [LD power Set VI Calc Intercept (beta)] :-0.1
- SP 3-623-186 [LD power Set VI Calc Intercept (gamma)] : 58
- 8. Again, from the Adjustment Settings for Operators menu, do **0201: 04** [Execute Image Quality Adjustment: Density Difference: With Feed].

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9. Do color calibration, again.

If the problem resolved, stop the procedure. If the problem does not resolve, continue.

10. Make the following SP settings.

- SP 3-630-021 [Dev gamma: Disp/Set Initial: K] : 2.25 → 1.85
- SP 3-630-022 [Dev gamma: Disp/Set Initial: C] : 2.25 → 1.85
- SP **3-630-023** [Dev gamma: Disp/Set Initial: M] : 2.25 → **1.85**
- SP **3-630-024** [Dev gamma: Disp/Set Initial: Y] : 2.25 → **1.85**
- SP 1-015-001 [Develop Motor Speed adj: K: Standard Speed] Pro C9200: 465 → 417 Pro C9210: 581 → 521
- SP 1-015-002 [Develop Motor Speed adj: C: Standard Speed] Pro C9200: 465 → 417 Pro C9210: 581 → 521
- SP 1-015-003 [Develop Motor Speed adj: M: Standard Speed] Pro C9200: 465 → 417 Pro C9210: 581 → 521
 Pro C9210: 581 → 521
- SP 1-015-004 [Develop Motor Speed adj: Y: Standard Speed] Pro C9200: 465 → 417 Pro C9210: 581 → 521
- SP 3-670-023 [DEMS: Setting: deltaP: d1_Upp Threshold] : 33 → 0
- SP 3-681-023 [DEMS: Setting: deltaPd[1]_Upp Threshold] : 33 → 0
- SP 3-681-024 [DEMS: Setting: deltaPd[2]_Upp Threshold] : 20 → 0
- SP 3-681-025 [DEMS: Setting: deltaPd[3]_Upp Threshold] : 20 → 0

IMPORTANT

Note that the above SP modification will positively create the following side-effect.

When printed in Low speed mode, the image density turns out higher than expected.

There is also the risk of the following side-effects:

- > Solid/halftone images appear grainy.
- Density is uneven within the page along feed direction (leading edge to trailing edge).
- 11. From the Adjustment Settings for Operators menu, do **0201: 03** [Execute Image Quality Adjustment: Density Difference: Across Feed] and **0201: 04** [Execute Image Quality Adjustment: Density Difference: With Feed].
- 12. Do color calibration.

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List of SP default settings

To retrieve the default for any of the SP settings modified, do the steps below.

a) Refer to the list below and apply the default values. Described in <u>blue</u> are factoryuse SP settings (modified in step 7). To retrieve the default for these settings, use the batch file 'Set factory SP default.txt' attached below.



SP 1-015-001 Develop Motor Speed adj: K: Standard Speed Pro C9200: 465 Develop Motor Speed adj: C: Standard Speed SP 1-015-002 Develop Motor Speed adj: M: Standard Speed SP 1-015-003 Pro C9210: Develop Motor Speed adj: Y: Standard Speed SP 1-015-004 581 Set Dev AC Vpp: C SP 2-213-002 Set Dev AC Vpp: M 400 SP 2-213-003 Set Dev AC Vpp: Y SP 2-213-004 Background Pot Set C SP 3-621-012 SP 3-621-013 Background Pot Set M 120 Background Pot Set Y SP 3-621-014 SP 3-621-062 Background Pot Set Lower Limit C Background Pot Set Lower Limit M SP 3-621-063 110 SP 3-621-064 Background Pot Set Lower Limit Y LD power Set Intercept (alpha) CMY SP 3-623-174 -0.4593 LD power Set Intercept (beta) CMY SP 3-623-175 55.85 LD power Set Intercept (gamma) CMY SP 3-623-176 -1649 LD power Set VI Calc Intercept (alpha) SP 3-623-184 -0.067 LD power Set VI Calc Intercept (beta) SP 3-623-185 5.15 LD power Set VI Calc Intercept (gamma) SP 3-623-186 -73 SP 3-630-021 Dev gamma: Disp/Set Initial: K 2.25 Dev gamma: Disp/Set Initial: C SP 3-630-022 Dev gamma: Disp/Set Initial: M SP 3-630-023 2.05 Dev gamma: Disp/Set Initial: Y 1.95 SP 3-630-024 SP 5-770-027 DTU edge0_beta_en DTU edge1 beta en SP 5-770-080 255 DTU edge2 beta en SP 5-770-133 SP 5-770-186 DTU edge3_beta_en DEMS: Setting: deltaP: d1 Upp Threshold SP 3-670-023 33 DEMS: Setting: deltaPd[1] Upp Threshold SP 3-681-023 DEMS: Setting: deltaPd[2]_Upp Threshold SP 3-681-024 20 DEMS: Setting: deltaPd[3] Upp Threshold SP 3-681-025



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- b) Power cycle the machine Off/On.
- c) From the Adjustment Settings for Operators menu, do **0201: 03** [Execute Image Quality Adjustment: Density Difference: Across Feed] and **0201: 04** [Execute Image Quality Adjustment: Density Difference: With Feed].
- d) Do color calibration.

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Model: Andoromeda-P2 Dat		Date: 1-Nov-18		No.: RM0B1043	
Subject: Bands in 65mm/310mm pitch across feed direction			Prepared by:		
From: 1st Tech Service Sect., PP Tech Service Dept.			Hiroaki Matsui		
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (nation eceive)	 Action required Service manual revision Retrofit information Tier 2 Tier 0.5 	

This bulletin replaces the troubleshooting information provided in the following sections of the FSM:

- 6. Troubleshooting > Image Quality > Image Quality 004: Unevenness > Horizontal band of uneven density just under the charger unit (white/black band at 308mm intervals)
- 6. Troubleshooting > Image Quality > Image Quality 003: Image Loss > White areas inside halftone images at 308-mm intervals

NOTE: 308 mm was a mistake and was corrected to 310mm.

SYMPTOM

Bands across the feed direction appear in 65mm or 310mm pitch, which correspond to the circumference of the development roller and drum.



NOTE: The symptom tends to occur in low-temperature/humidity environment.

CAUSE

Any of the following:

• PG (potential gap – the distance between the development roller and drum) is inconsistent due to the eccentricity of the development roller and/or the drum.
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Model: Andoromeda-P2		Date: 1-Nov-18	No.: RM0B1043

- DEMS/DSC are malfunctioning due to noise in the signal generated from the development drive sensor.
- DEMS/DSC are functioning but are set to work for high coverage images while the symptom is observed in low coverage jobs.

SOLUTION

Check the life of the following PM parts and replace as necessary: Drum, Charger unit, Drum cleaning unit, Image transfer roller. It is recommended that you also replace any other PM parts that have already exceeded the prescribed yield. If the problem does not solve, continue with the flowcharts and the procedures below.

Flowchart 1



NOTE: If the symptom appears only in black, do SP3-062-003 (K). Otherwise, do SP3-062-001 (All).

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Date: 1-Nov-18

No.: RM0B1043

Flowchart 2



NOTE: See the following sections of FSM for the replacement procedure.

Drum motor

4. Replacement and Adjustment > Drive Unit > Drum Motor (KCMY)

Development Drive Sensor

4. Replacement and Adjustment > Around the Drum > Developer Replacement > Development Drive Sensor



Model: Andoromeda-P2

Date: 1-Nov-18

No.: RM0B1043

Connectors on the IOB1/BCU

<u>IOB1</u>



<u>BCU</u>



Model: Andoromeda-P2

Date: 1-Nov-18

No.: RM0B1043

Applying Grease

DEMS/DSC may be malfunctioning due to noise generated from the development drive sensor. To eliminate this possibility, grease the screw circled in red below at the rear side of the PCDU, which fixes the auger screw.



- For the procedure on how to access this screw, see the following section of the FSM: Replacement and Adjustment > Around the Drum > Developer Replacement > Development Drive Sensor
- Make sure to use the following grease and apply it along the <u>entire periphery of the</u> <u>screw</u>.

p/n: D0149800 (GREASE: KS660: SHIN-ETSU)

Refer to the pictures below for the optimal amount of grease.











IMPORTANT: DO NOT let grease touch the drawer connector. If it does, wipe it off.



Continue with Flowchart 3 on the next page.

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Model: Andoromeda-P2

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Date: 1-Nov-18

No.: RM0B1043

Note #1: DEMS correction amplitude

SP3-677-001: Vb:Amp:Disp: OPC:Abp'[1]:K SP3-677-002: Vb:Amp:Disp: OPC:Abp'[1]:C SP3-677-003: Vb:Amp:Disp: OPC:Abp'[1]:M SP3-677-004: Vb:Amp:Disp: OPC:Abp'[1]:Y

Note #2: Drum set position adjustment

Turn the drum 90° (about three holes on the flange) in the direction indicated with the arrow. Do not turn in the opposite direction because toner may fall.





Note #3: DEMS execution SP3-040-002: DEMS:Execute: K SP3-040-003: DEMS:Execute: C SP3-040-004: DEMS:Execute: M SP3-040-005: DEMS:Execute: Y

Note #4: DEMS parameter

The below SP modification is effective for density fluctuation in low coverage images. However, note that there is a trade-off relationship with high coverage images.

	SP No.	Description	Default	Change to
	SP3-671-051	Vc:Coef:Setting:Scd[1]:K	123	246
M0B1	SP3-671-052	Vc:Coef:Setting:Scd[1]:C	85	170
115ppm	SP3-671-053	Vc:Coef:Setting:Scd[1]:M	85	170
	SP3-671-054	Vc:Coef:Setting:Scd[1]:Y	85	170
	SP3-671-051	Vc:Coef:Setting:Scd[1]:K	102	204
M0B2	SP3-671-052	Vc:Coef:Setting:Scd[1]:C	140	280
135ppm	SP3-671-053	Vc:Coef:Setting:Scd[1]:M	140	280
	SP3-671-054	Vc:Coef:Setting:Scd[1]:Y	140	280



Model: Andromeda-P2 (M0B1/M0B2)			Date: 8-Nov	/-18	No.: RM0B1044
Subject: Troubleshooting: Images located near the paper edge may blur					r: Takuya Hirakawa
From: PPCS section	n CIP FQM Department QA	C			
Classification:	Troubleshooting	Part inforn	nation	Action re	quired
	Mechanical Electrical			Service r	nanual revision
	Paper path Transmit/receive		eceive	🗌 Retrofit in	nformation
	Product Safety	🗌 Other ()	🛛 Tier 2	Tier 0.5

SYMPTOM

Images located near the main-scan paper edge may blur when printing onto paper wider than 321.5mm. In some cases, the accuracy of image position feedback may also worsen.



CAUSE

The adjustment of the image center and paper feed center performed at the factory (in order to align the two) was near the specification upper limit. As a result, the image may sometimes be transferred outside the area defined by product warranty.

SOLUTION

Set the following SP modes to the values shown at the far right of the table. This is to adjust the center position of the paper.

SP Number	Description	Added value	Default	Change to
SP1-078-001	CIS Ref PositionMeasured Value CIS 1	+190	289	479
SP1-078-002	CIS Ref PositionMeasured Value CIS 2	+190	270	460
SP1-078-003	CIS Ref PositionMeasured Value CIS 3	+190	371	561
SP1-502-001	Side-to-sideReg StandardValue Front Side	-2	2.8	0.8
SP1-502-002	Side-to-sideReg StandardValue Back Side	-2	3	1

Note: The default values for these SP modes vary depending on the engine.

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Model: Andromeda-P2			Date: 08-N	lov-18	No.: RM0B1045
Subject: SD cards procured from the market may not work			Prepared by: J. Ohno		
From: Sales Strategy Sect., 1st CP Business Dept.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receive Other () 		 ☐ Action re ☐ Service r ☐ Retrofit in ☑ Tier 2 	quired nanual revision nformation

SYMPTOM

Logs may not be stored on the SD card for a certain period if the card was procured from the market instead of the parts center.

The symptom was confirmed with a Toshiba SD card.

CAUSE

Using SD cards from the market may reset the SDCU and prevent logging until the next time the machine power turns Off/On.

SOLUTION

Check both SD cards inserted to the service slots. If the cards are not of the service part, replace with the below.

P/N	Description
14078476	Memory ROM storage: SDXC8GB

Technical Bulletin

Model: Andromeda-P2 Da			Date: 08-Nov-18		No.: RM0B1046
Subject: FSM Correction - Clamp for operation panel USB cable added as accessory					by: J. Ohno
From: Sales Strategy Sect., 1st CP Business Dept.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Troubleshooting Part information Mechanical Electrical Paper path Transmit/receive Product Safety Other ()		 Action required Service manual revision Retrofit information Tier 2 Tier 0.5 	

The cable clamp for clamping the USB cable from the operation panel at the rear of the Fusing Section used to be attached at the factory but is now included as an accessory.

Please make the following two corrections to your FSM in line with this change.

<u>Correction 1:</u> Installation > Main Machine Installation > Accessory Check

The following clamp was added to the accessories list.



Description	Q'ty
Clamp	1

<u>Correction 2:</u> Installation > Main Machine Installation > Installation Procedure > Installing the Operation Panel

Step 17 was corrected as follows.

17. Attach the clamp [A] at the rear corner of the Fusing Section, remove the white paper tape and clamp the USB cable.



Technical Bulletin

Model: Andromeda-P2			Date: 08-Nov-18		No.: RM0B1047
Subject: Unprinted spots caused by foreign substance on ITB			Prepared by: J. Ohno		
From: Sales Strategy Sect., 1st CP Business Dept.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receive Other () 		Action re Service r Retrofit in Tier 2	quired nanual revision nformation Tier 0.5

SYMPTOM

A part of the image is unprinted at 2415mm interval, which corresponds to the length of the ITB. The table below describes the frequency of symptom occurrence by paper size.

Paper length along the feed direction	Frequency	Sizes
139.7 ~ 215.9 mm	Every 9 sheets	A4 LEF, LT LEF, etc.
215.9 ~ 297 mm	Every 7 sheets	A4 SEF, LT LEF, etc.
297 ~ 364 mm	Every 6 sheets	B4 SEF, etc.
364 ~ 487.7 mm	Every 5 sheets	A3, SRA3, 12x18, etc.
487.7 ~ 700 mm	Every 3 sheets	Bypass tray, Banner sheets

CAUSE

Foreign substances such as dust and grease are adhered to the ITB.

SOLUTION

Remove the foreign substance from the ITB in the following procedure.

- 1. Pull out the ITB unit to the 'Service' position. See FSM section: 4. Replacement and Adjustment > Intermediate Transfer Belt Unit (ITB) > ITB Unit (Service Position).
- 2. Look for the foreign substance on the belt as you turn the ITB motor [A] in the direction indicated with the arrow.





Model: Andromeda-P2

Date: 08-Nov-18

No.: RM0B1047

Vote Note

Foreign substance adhered to the belt should be projected from the belt surface and appear whitish.



w_m0b2d6975_ja

3. Scrape off the foreign substance from the belt using a thin sheet of paper or a PET sheet or the like.



m0b2d6977

Scrape gently so as not to scratch the belt. Foreign substances do not adhere to the belt strongly and should come off easily.

4. Put back the ITB unit and print a job to verify that the symptom has disappeared.

Vote Note

- Lubrication on the belt is removed together with the foreign substance and causes poor transfer for a while, but this will resolve gradually by printing approximately 50 pages on A3/DLT.
- You can do SP3-011-002 (Manual ProCon :Exe: Density Adjustment) instead of printing 50 pages.

Technical Bulletin

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Model: Andromeda-P2			Date: 08-Nov-18		No.: RM0B1048
Subject: Poor stacking of Wt.1 media on High Capacity Stacker SK5040			Prepared by: J. Ohno		
From: Sales Strategy Sect., 1st CP Business Dept.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Image: Troubleshooting Image: Part information Image: Mechanical Image: Electrical Image: Paper path Image: Transmit/receive Image: Product Safety Image: Other (Control of the state)		Action re Service r Retrofit in Tier 2	quired nanual revision nformation Tier 0.5

SYMPTOM

The trailing edge of the printouts run over the jogger and results in poor stacking when printed Wt.1 or lighter media to the High Capacity Stacker SK5040.



CAUSE

Wt.1 or lighter (thinner) media tends to skew across the feed direction when the leading edge hits the leading edge stopper due to its light weight. Also, this type of media tends to curl face-up, which causes the trailing edge to run over the joggers.

NOTE: The risk is higher in low temp/humidity environment.

SOLUTION

- Set the paper upside down.
- Use the de-curl unit and correct the curl in Adjustment Settings for Operators [#0301: Correct output paper curl].

Technical Bulletin

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Model: Andromeda-P2			Date: 8-No	ov-18	No.: RM0B1049
Subject: ACD unit FR correction parameter back up procedure					by: Hiroaki Matsui
From: 1st Tech Service Sect., PP Tech Service Dept.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	☐ Troubleshooting ☐ Part information ☐ Mechanical ⊠ Electrical ☐ Paper path ☐ Transmit/receive ☐ Product Safety ☐ Other ()		 Action re Service n Retrofit in Tier 2 	quired nanual revision nformation Tier 0.5

This bulletin explains the procedure to back up the FR correction parameter of the ACD unit.

The FR correction parameter of the ACD unit is a parameter unique to each Fusing Section by its s/n, and it is loaded on the ACD unit at the factory. The parameter is used to correct the scan characteristics unique to each unit. Without the parameter, the Color Homing function will not work properly and cause unexpected density fluctuation in the printed image.

The parameter is deleted in the following cases:

- > When reinstalling the OS of the ACD unit
- > When updating the following f/w:
 - ACD Unit OS Installer (M5185232 or newer)
 - ACD Unit App Installer (M5185233 or newer)

For this reason, it is recommended to back up the FR correction parameters at new site installs or before re-installing the OS of the ACD unit /App installing.

What you will need

- Windows PC
- Ethernet cable
- FTP client software
 Example: WinSCP (<u>https://winscp.net/eng/index.php</u>)
 Install the FTP client software on your PC beforehand.

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Model: Andromeda-P2

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Backup procedure

- **NOTE:** FR Correction parameter cannot be backed up while the machine is alerting SC693-xx. If SC693-xx is displayed, power cycle the machine Off/On before you begin the procedure.
- 1. Turn On the machine power.
- 2. Open the left door of the Fusing Section.
- 3. Remove the front cover [A] of the ACD unit. (Screw x6)



4. Connect the Ethernet cable to your laptop and the other end to the connector [A] on the ACD unit.



- 5. On your laptop, go to Control Panel > Network and Sharing Center > Change Adapter Setting > Local Area Connection > Property.
- 6. Select Internet 'Protocol Version 4 (TCP/IPv4)' and click Properties.

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7. Make the IP settings as shown below and specify 192.168.1.10 as your laptop IP address.

eneral Alternate Configuration	an i	General	
You can get IP settings assign this capability. Otherwise, you for the appropriate IP settings	ed automatically if your network supports need to ask your network administrator	You can get IP settings assigned this capability. Otherwise, you n for the appropriate IP settings.	automatically if your network supports seed to ask your network administrator
Obtain an IP address aut	omatically	Obtain an IP address autor	natically
O Use the following IP addr	ess:	Use the following IP addres	IST.
IP address:		IP address:	192 .168 . 1 . 10
Subnet mask:	100 A. 100 A.	Subnet mask:	
Default gateway:		Default gateway:	
Obtain DNS server addre	ss automatically	🗇 Obtain DNS server address	automatically
O Use the following DNS ser	ver addresses:	Use the following DNS serv	er addresses:
Preferred DNS server:		Preferred DNS server:	· · ·
Alternate DNS server:	1	Alternate DNS server:	1 1 1 1
Validate settings upon et	Advanced	Validate settings upon exi	Advanced

- 8. Open WinSCP.
- 9. Set up the following new site and connect:

Host name: 192.168.1.2 User name: root Password: ricoh

Yew Site		Session Eile protocol:	•]	
		Host name:		Port number:
		192.168.1.2 User name:	Password:	22 🐑
		root <u>S</u> ave		Advanced
			-	
Tools 🔻	Manage		Login Close	Help

NOTE: Connection to the network may fail depending on the site. If the connection is poor, disconnect all connections (including wireless) except for the ACD unit.

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		/

10. Verify that file 'FRC_Parameter.csv' is stored in the directory below: /home/ricoh/piramid/vpu/release

11. Copy the file 'FRC_Parameter.csv' to your PC.

12. Disconnect the Ethernet cable and put back the front cover of the ACD unit.

Editing the FRC Parameter file after copying to your PC

After copying the FRC Parameter file 'FRC_Parameter.csv' to your PC, you must edit the file in the following procedure.

a) Open the 'FRC_Parameter.csv' in text editor (like the Microsoft Notepad.exe).

NOTE : Use the Notepad instead of Excel.







d) Type in 'N/A' and ',,,,,' (five commas) on the blank third line.

	FRC_Parameter.csv - 义モ帳	—		×	
I	ファイル(F) 編集(E) 書式(O) 表示(V) ヘルプ(H)				
	# Machine_Number,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				^
ľ	N/A,.,,,				
Ī	# debug,512,-34,-28,-307,341,284,0,170,227,-256,512,512,512,-256,0,0,	-153,-	-512,,,	, , , ,	
	# SIU Parameter,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	u2G,u2 16601	2B,,,,, 5625,0.	.221	
	#,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	23,24, ,0,0,(,25,26,),0,0,0	,27,),0,	
	1, -7, -7, -6, -6, -6, -6, -5, -5, -5, -4, -4, -4, -4, -3, -3, -3, -3, -2, -2, -2, -2, -2, -2, -2, -2, -2, -2	1,-1,- 1,-1,-	-1,-1,(-1,-1,(),0,),0,	
	3, -7, -0, -0, -0, -5, -5, -5, -5, -4, -4, -4, -4, -3, -3, -3, -3, -3, -2, -2, -2, -2, -1, - 4, -6, -6, -6, -6, -5, -5, -5, -5, -4, -4, -4, -4, -3, -3, -3, -3, -2, -2, -2, -2, -2, -1, - 5 -6 -6 -6 -5 -5 -5 -5 -4 -4 -4 -4 -4 -3 -3 -3 -3 -3 -2 -2 -2 -2 -2 -1 -	1,-1,- 1,-1,- 1 -1 -	-1,-1,(-1,-1,(-1 -1 (),0,),0,)	
	6, -6, -6, -5, -5, -5, -5, -5, -4, -4, -4, -4, -3, -3, -3, -3, -3, -2, -2, -2, -2, -2, -1, - 7, -6, -6, -5, -5, -5, -5, -4, -4, -4, -4, -3, -3, -3, -3, -3, -2, -2, -2, -2, -1, -1, -	1,-1,- 1,-1,·	-1,-1,(-1,-1,(),Ŏ,),Ŏ,	~
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e) Type in the '#' mark [A] before the serial number [B] on the second line.

	FRC_Parameter.csv - 义モ帳	—		\times
[A]	ファイル(F) 編集(E) 書式(O) 表示(V) ヘルプ(H)			
	# Machine_Number,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			^
	#pulδ=630026,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	# debug, 512, -34, -28, -307, 341, 284, 0, 170, 227, -256, 512, 512, 512, -256, 0, 0	,-153,-	-512,,,	,,,
	# STU Parameter,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		an	
	# SIK,SIG,SID, TIK, TIG,TID,UIK,UIG,UID,SZK,SZG,SZG, TZK,TZG,TZB,UZK 0.50.0332031250.027343750.299804688.0.333007813.0.27734375.0.0	.uzu,u .16601	28,,,,, 5625.0.	221
	# LUI_VIR,U,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22	,23,24	,25,26, 1 0 0 0	27,
	1,-7,-7,-6,-6,-6,-6,-5,-5,-5,-4,-4,-4,-4,-3,-3,-3,-3,-2,-2,-2,-2,-2,-2,-2,-2,-2,-2,-2,-2,-2,	-1,-1,	-1,-1,0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	2, -7, -6, -6, -6, -6, -5, -5, -5, -5, -4, -4, -4, -4, -3, -3, -3, -3, -3, -2, -2, -2, -2, -1, -	-1,-1,-	-1,-1,0	i,Ó,
	3,-/,-6,-6,-6,-5,-5,-5,-5,-4,-4,-4,-4,-3,-3,-3,-3,-3,-3,-2,-2,-2,-2,-1,- 4 _6 _6 _6 _6 _6 _5 _5 _5 _5 _5 _4 _4 _4 _4 _4 _2 _2 _2 _2 _2 _2 _2 _2 _2 _2 _2 _2 _1 .	-],-], -1 _1 .	-1,-1,0 -1 -1 0	1,0,
	14, -0, -0, -0, -0, -0, -0, -0, -0, -0, -0	-11.	-11.0	1.0.
	6, -6, -6, -5, -5, -5, -5, -5, -4, -4, -4, -4, -3, -3, -3, -3, -3, -2, -2, -2, -2, -2, -1, -	-1,-1,-	-1,-1,0	I,Ŏ,
	/,-6,-6,-5,-5,-5,-5,-4,-4,-4,-4,-4,-3,-3,-3,-3,-3,-2,-2,-2,-2,-2,-1,-1,-	-1,-1,	-1,-1,0	1,0, v
	<			>

- **NOTE**: Serial number [B] in the 'FRC_Parameter.csv' is that of the Imaging Section, which was paired with the Fusing Section when the FR correction parameter was created at the factory in Japan. By editing the text file as in above, the 'FRC_Parameter.csv' can be re-installed to the machine, whose serial number of actual paired imaging section is different from [B].
- f) Save (overwrite) the edited text file as 'FRC_Parameter.csv.'
 - **NOTE:** Re-install the edited 'FRC_Parameter.csv' file if the FR correction parameter was deleted in the cases as mentioned on page 1. The procedure is mentioned in the FSM: 4.Replacement and Adjustment>Auto Color Diagnosis Unit>FR Correction Parameter Reinstallation

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When the FR Correction Parameter has been deleted

If you reinstalled the ACD OS before backing up the FR correction parameter in the procedure described in this bulletin, the FR correction parameter is deleted and lost.

In that case, inform the s/n **both** of the Fusing and Imaging sections to your service representative to obtain the parameter unique to the unit. (Parameters are stored by s/n at the factory.)

NOTE: Information of current combination of the Fusing section and Imaging section s/n is very important.

If the TIM-Red (composed of a lens block and an optical unit) was replaced in the past.

The FR correction parameter is that of contained in the SD card that was included together with the TIM-Red procured as a service part. If the FR correction parameter was deleted and lost, re-install the parameter contained in that SD card. If you do not have the SD card, inform the barcode numbers described on the lens block to your service representative to obtain the parameter unique to that TIM-Red. See **RTB# RM0B1018a** for detail.

Technical Bulletin

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Model: Andromeda-P2 Date			Date: 9-No	ov-18	No.: RM0B1050
Subject: Error Codes for ACD Unit Update Failure			Prepared I	by: Hiroaki Matsui	
From: 1st Tech Service Sect., PP Tech Service Dept.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform Electrical Transmit/re Other (nation eceive)	Action re	quired nanual revision nformation Tier 0.5

Error code table for the ACD unit was missing from the FSM. Please add the following table to your FSM in section:

5. System Maintenance > Firmware Update > Procedure > Error Screens During Updating

Code	Description	Solution
76	ACD unit firmware update failure 1	 Use a different SD card or a USB memory device.
	- Failed to update the VPU system	 Download, save and update the firmware again.
	software (ACD Unit System)	• Do the following in the order described. Stop when the problem resolves: 1) Reinstall the ACD system software, 2) Replace the HDD, 3) Replace the ACD unit.
77	ACD unit firmware update failure 2	 Use a different SD card or a USB memory device.
	– Failed to update the VMCU	 Download, save and update the firmware again.
	FPGA (ACD Unit M-FPGA)	• Do the following in the order described. Stop when the problem resolves: 1) Reinstall the ACD system software, 2) Replace the VMCU board, 3) Replace the ACD unit.
78	ACD unit firmware update failure 3	 Use a different SD card or a USB memory device.
	 Failed to update the VMCU Ri 	 Download, save and update the firmware again.
	(ACD Unit M-Ri)	• Do the following in the order described. Stop when the problem resolves: 1) Reinstall the ACD system software, 2) Replace the VMCU board, 3) Replace the ACD unit.
79	ACD unit firmware update failure 4	 Use a different SD card or a USB memory device.
	- Failed to update the VICU FPGA	 Download, save and update the firmware again.
	(ACD Unit I-FPGA)	• Do the following in the order described. Stop when the problem resolves: 1) Reinstall the ACD system software, 2) Replace the VICU board, 3) Replace the ACD unit.
80	ACD unit firmware update failure 5	 Use a different SD card or a USB memory device.
	- Failed to update the VICU Ri	 Download, save and update the firmware again.
	(ACD Unit I-Ri)	• Do the following in the order described. Stop when the



Mode	I: Andromeda-P2		Date: 9-Nov-18	No.: RM0B1050	
		problem resolves: 1) Reinstall the ACD system software, 2) Replace the VICU board, 3) Replace the ACD unit.			
81	ACD unit firmware update failure 6 – Failed to update the VPU parameter	 5 Use a different SD card or a USB memory device Download, save and update the firmware again. Do the following in the order described. Stop whe problem resolves: 1) Reinstall the ACD system software, 2) Replace the HDD, 3) Replace the AC unit. 			
82	ACD unit firmware update failure 7 – ACD unit is not connected to the printer.	 Confirm sec and printer, If the above ACD unit. 	ure cable connection bet then update the firmware does not resolve the pro	ween the ACD unit again. blem, replace the	

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Model: Andromeda-P2			Date: 12-N	lov-18	No.: RM0B1051
Subject: Revised harness routing between IOB-ACD for higher safety			Prepared	by: J. Ohno	
From: Sales Strategy Section, 1st CP Business Dep.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (nation eceive)	Action required Service manual revision Retrofit information	

Change: Routing of the harness connecting the IOB and Auto Color Diagnosis Unit

Reason: For higher safety

- Immediate action is not required. Change the routing of the harness the next time you open the rear box by referring to the below.
- Replace the picture of step 14 in the following section of the FSM:

2. Installation > Main Machine Installation > Installation Procedure > Connecting Connectors (Between Imaging Section and Fusing Section)

Incorrect:

14. Route the one harness (purple) [A] as shown below, and then connect it to CN354 on the IOB.



😴 x4 🐨 x1

m0b2d8924a

Correct:

14. Route the one harness (purple) [A] as shown below, and then connect it to CN354 on the IOB.



🕵 x6 ଙ x1

m0b2d8924b

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Model: Andromed	a-P2	Date: 12-N		lov-18	No.: RM0B1052
Subject: Toner drops and stains the front and rear edges		Prepared by: J. Ohno			
From: Sales Strategy Section, 1st CP Business Dep.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (nation eceive)	 ☐ Action re ⊠ Service n ☐ Retrofit in ⊠ Tier 2 	quired nanual revision nformation Tier 0.5

SYMPTOM

Toner drops and stains the printouts toward the front and rear edge (viewed from front of the machine).

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CAUSE

Toner accumulated on the rear side of the development seals falls onto the ITB. This happens especially with saddle-stitching jobs, because the drive of the development unit stops every time while printing the back side and while stapling, generating constant vibration.

SOLUTION

Clean the development unit in the following procedure.

FSM Correction

Replace the development unit cleaning procedure in the following section of the FSM with the procedure described in this bulletin:

3. Preventive Maintenance > Cleaning Points (1) > PCDU > Development Unit



|--|

Model: Andromeda-P2

Date: 12-Nov-18

No.: RM0B1052

Note

Prepare the turning jig [A] and a vacuum cleaner beforehand.



- 1. Remove the drum cleaning unit and drum. (See FSM section: 4. Replacement and Adjustment > Around the Drum > "PCU Cleaning Unit Removal" and "PCU".)
- 2. Place a piece of cloth or a few sheets of paper on the floor to prevent loose toner from dirtying the floor.
- 3. Remove the three screws fixing the cover [A].



4. Carefully remove the cover [A] so as not to damage the seals [B] attached to both ends.



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C Important)

DO NOT loosen the screws fixing the doctor blade.



m205a1240

5. Connect the black end [A] of the turning jig to the gear [Y] of the development roller and turn it in the direction indicated with the arrow until you confirm no loose developer on the development roller [B].



m0b2d3199a

6. Vacuum the tip of the doctor blade with a cleaner. Work carefully not to nick the development roller.



7. Vacuum the edge of the doctor blade with a cleaner to remove toner accumulated behind the side seal [A]. Work carefully not to nick the development roller.



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8. Vacuum the side seal [A] in between the upper and lower development rollers to remove toner behind the seal. Work carefully not to nick the development rollers.



9. Connect the white end [A] of the turning jig to the gear [Z] of the transport auger and turn it at least 10 times in the direction indicated with the arrow.



- If you turned the gear in the opposite direction by mistake, turn it in the correct direction at least 20 times.
- Turning the gear in the wrong direction or not turning it at all may cause the development unit to break, because the developer will not be distributed in the correct ratio in the chambers.
- 10. Connect the black end [A] of the turning jig to the gear [Y] of the development roller and turn it one full rotation in the direction indicated with the arrow to discharge developer to the surface of the development roller [B].



11. Make sure the side seals are attached cleanly with no folds and air-bubbles, and the put back the cover removed in step 4.



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12. Vacuum the area underneath the development roller [A] and the toner supply aperture [B] with a cleaner.





13. Apply lubricant powder (p/n: D0159501) to the areas [A] of both front and rear side seals of the drum cleaning unit.



m205a1208



Note

See below for the optimal amount of lubricant.



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Optimal



Minimum

m0b2d4244



m0b2d4245



m0b2d4246

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Model: Andromeda-P2 Date: 1		Date: 13-I	Nov-18	No.: RM0B1053	
Subject: FW Bug in Engine Ver.1.501:12 (M0B15160H) and in ver.1.51:12 (M0B15160J)		Prepared	by: Hiroaki Matsui		
From: Sales Strate	gy Section, 1st CP Busines	s Dep.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform	nation eceive)	Action re Service r Retrofit ir	quired nanual revision nformation

IMPORTANT NOTICE

A fatal f/w bug was found in the latest **Engine f/w ver.1.501:12 (M0B1516H)** and in **ver.1.51:12 (M0B15160J: Limited machines in Europe only).**

SYMPTOM

Print speed decreases from 135ppm(ProC9210) or 115ppm (ProC9200) to 1 or 2 ppm under the following condition:

Jobs are run consecutively with each job having different paper type/size/weight and the target fusing temperature differing at least by 5 deg.

CAUSE

F/w bug. See next page for detail.

ACTION

Downgrade the Engine f/w to the previous ver.1.42:12(M0B15160G)

NOTE:

- 1. Engine f/w ver.1.501:12(M0B1516H) has been already replaced with ver.1.42:12 (M0B15160G) in the FW download center.
- 2. There is no f/w that needs to be downgraded together with the above Engine f/w:

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Model: Andromeda-P2		Date: 13-Nov-18	No.: RM0B1053

Detail of the f/w bug

Normally, when the target fusing temp differs by at least degrees between two jobs with different paper type/size/weight, the system waits until the target temp is reached before starting the second job. Once reached, the job is printed at the rated speed. This is the expected behavior by spec.



However, the bug in the f/w forces the system to check if the target fusing temp is reached for every page of the second job even after the target temp was achieved at the start of the second job, thus considerably decreases the print speed.



Reissued: 17-Dec-18

Model: Andromeda-P2

Date: 13-Nov-18

No.: RM0B1053b

RTB Reissue

The items in **bold italics** were corrected or added. The item in strike-out was deleted

Subject: FW Bug in Engine Ver.1.501:12 (M0B15160H) and in ver.1.51:12 (M0B15160J)			Prepared by: Hiroaki Matsui
From: Sales Strate	gy Section, 1st CP Busines	s Dep.	
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receive Other () 	 Action required Service manual revision Retrofit information Tier 2 Tier 0.5

IMPORTANT NOTICE

A fatal f/w bug was found in the latest **Engine f/w ver.1.501:12 (M0B15160H)** and in **ver.1.51:12 (M0B15160J: Limited machines in Europe only).**

SYMPTOM

Print speed decreases from 135ppm(ProC9210) or 115ppm (ProC9200) to 1 or 2 ppm under the following condition:

Jobs are run consecutively with each job having different paper type/size/weight and the target fusing temperature differing at least by 5 deg.

CAUSE

F/w bug. See next page for detail.

ACTION

Upgrade the Engine f/w

to the countermeasure Ver.1.521:12 (M0B15160K.fwu) or newer.

NOTE:

1. Engine f/w ver.1.501:12(M0B1516H) has been already replaced with *Ver.1.521:12* (*M0B15160K.fwu*) in the FW download center.

2. There is no f/w that needs to be downgraded together with the above Engine f/w:

3. Contact your regional supervisor to get the Engine f/w ver 1.51a:12 (M0B15160K_LR0899.fwu), because this is still a temporary version and not posted on FW download center.

4. Upgrade the following FWs as a set. Otherwise SC693-02 may appear in some cases.

ACD Unit System Ver 01.006.00 (M5185234J) or newr.

This is official mass production f/w and it is posted on FW download center.

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Reissued: 17-Dec-18

Model: Andromeda-P2	Date: 13-Nov-18	No.: RM0B1053b
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Detail of the f/w bug

Normally, when the target fusing temp differs by at least degrees between two jobs with different paper type/size/weight, the system waits until the target temp is reached before starting the second job. Once reached, the job is printed at the rated speed. This is the expected behavior by spec.



However, the bug in the f/w forces the system to check if the target fusing temp is reached for every page of the second job even after the target temp was achieved at the start of the second job, thus considerably decreases the print speed.



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Model: Andromeda-P2 Date: 14-N		lov-18	No.: RM0B1054		
Subject: Troubleshooting dirty background		Prepared by: J. Ohno			
From: Sales Strate	gy Section, 1st CP Busines	s Dep.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (nation eceive)	 Action re Service r Retrofit in Tier 2 	quired nanual revision nformation Tier 0.5

SYMPTOM

Dirty background

The symptom is especially noticeable when printed on highly smooth coated media.

CAUSE

The surface of the drum is covered with deteriorated toner. This tends to happen under the following conditions.

- Toner consumption is low in ratio to the machine operation time, for instance, the machine runs low coverage and duty jobs.
- Machine is installed in a HH (high temp/humidity) environment. Toner absorbs moisture and degrades its charge capacity. If the machine is left unused for an extended period, toner chargeability may degrade even below 50% RH.

SOLUTION

- 1. Enter the SP mode and verify the values in SP3-820-011~014 (Tnr Refresh Mode: KCMY Amount).
- 2. If any of these SP values are above 10,000, print solid fills until the value reaches below 10,000.

NOTE:

- For reference, printing 30 copies in simplex (or 15 copies in duplex) of solid fills on A3/DLT will reduce the SP value approximately 18,000~19,000.
- If you are not allowed to print using your customer's stock or do not have any paper in hand, do [#0508: Execute Developer Refreshing] of the Adjustment Settings for Operators to exhaust deteriorated toner. You may have to repeat this several times.

If the symptom does not disappear, the problem is not caused by deteriorated toner. Check the following:

- Drum potential sensor
- Development bias
- > Drum

Model: Andromeda-P2	
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Date: 14-Nov-18

No.: RM0B1054

Preventive measure

Make the SP modifications described below as preventive measure, if either of these conditions are met:

- The machine usually runs low coverage/duty jobs.
- Any of the four developer counter values is 100000 or smaller.

SP7-621-002: Bk SP7-621-023: C SP7-621-044: M SP7-621-065: Y

SP modifications to exhaust toner at the end of each job:

- Set SP3-820-022 (Tnr Refresh Mode: Max Job End Pattern) to '500mm' (default: 0).
- Set SP3-820-024 (Tnr Refresh Mode: Job End Ptn Start Threshold) to '10000mm' (default: 0).

🔸 Note

When the developer counter(s) (SP7-621-022, 023, 044, 065) reach(es) 100000, make sure to set the above SPs back to default.

Possible side effects of the above SP modifications

- > Toner yield degrades due to high toner consumption.
- Waste toner can adhere to the PTR entrance guide plate and cause a line to appear 25mm from the leading edge across the feed direction, especially on the first page of a job.
- Waste toner can scatter onto the PTR entrance guide plate and stain the back side of prints.



Reissued:16-Apr-19

Model: Andromeda-P2	Date: 16-Nov-18	No.: RM0B1055a

RTB Reissue

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

Subject: Service Manual Correction: VIF FPGA Config Data Update Procedure		Prepared by: Hiroaki Matsui	
From: Sales Strate	gy Section, 1st CP Busine	ess Dep	
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receive Other () 	 Action required Service manual revision Retrofit information Tier 2 Tier 0.5

Service Manual Correction

Please add/correct the descriptions in red in the following section of the Field Service Manual:

4. Replacement and Adjustment > Auto Color Diagnosis Unit > Firmware Update > VIF FPGA Config Data Update Procedure

VIF FPGA Config Data Update Procedure

Preparation

 Store two FPGA config data files 'oasis_verx_M5185212.jic' and 'oasis_verx_M5185245.jic' on your PC.

NOTE: DO NOT double click the icons.

<u>Right click</u> the icons, then select "Copy". → Right click on your local folder, then select "Paste.



- Install 'Quartus Prime Programmer and Tools' on your PC in the following procedure.
 - 1. Access the Intel website (<u>http://www.intel.com/</u>).
 - 2. Go to Support \rightarrow Downloads \rightarrow Select by Software.
 - 3. Select **Programming Software** and the version **17.1 or newer**, then click **Download**.



Reissued:16-Apr-19

Model: Andromeda-P2	Date: 16-Nov-18	No.: RM0B1055a
Software Selector Select by Version Select by Device Select Software Products 2. Select Version or Product 3. Download Selected	File	
ModelSim-Intel FPGA Edition 18.0 Image: Construct of the second sec		


Reissued:16-Apr-19

Model: Andromeda-P2 Date: 16-Nov-18 No.: RM0B1055a

4. From the drop-down list [Select edition], select Lite.



5. For 32-bit PC, select **Quartus Prime Programmer and Tools (32-bit)**. For 64-bit PC, select **Quartus Prime Programmer and Tools.** Then, click **Download Selected Files**.



- Install the USB BLASTER driver on your PC from "\intelFPGA\17.1\qprogrammer\drivers".
- Prepare the USB BLASTER cable.



Technical Bulletin

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Model [.]	Andromeda-P2
INDUCT.	Anuluineua-rz

Date: 16-Nov-18 No.: RM0B1055a

Update Procedure

- Turn the main machine off. 1.
- <u>2.</u> Remove the lower left cover at the rear.
- 3. Remove the controller box [A]. (\Im x2)
 - Note

Note
Remove the two screws circled in red below, loosen the blue-circled screws, and slide the cover out to the right.



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Connect the USB BLASTER cable [A] to the connector on the VIF as shown below. Then connect <u>4.</u> the other end to the PC.



- <u>5.</u> Turn the machine on.
- Launch the tool "Quartus Prime 17.1 Programmer" on the PC. 6.

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Reissued:16-Apr-19

del: Andromeda-P2		Date: 16-Nov-18	No.: RM0B1058
Select "Hardware Setur	o" [A].		
🥹 Quartus II 32-bit Programmer - [Chain	1.cdf]		
Ele Edit View Processing Tools Windo	w Help	Search altera.com	
A Hardware Setup	Mode: JTAG	Progress:	
Enable real-time ISP to allow background prog	amming (for MAX II and MAX V devices)		
Pie Fie	Device Checksum Usercode	Program/ Verify Blank- Examine	
ull ⁴ Stop		Compare Check	
ally Auto Detect		li li	
36 Delete			
Add Fie			
Sig Change File			
Save File	m	•	
Add Device			
AND DEVICE			
I hop			
4 N Down			
🗙 🔝 🙆 🖾 🚲 🤝 < <search< td=""><td>»</td><td></td><td></td></search<>	»		
[‡] Type ID Message			
2			
A			
System / Processing			

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8. Set "Currently selected hardware" to "USB-Blaster [USB-0]" [A]. Then select "Close" [B].

naraware secongs	JTAG Setting	s		
Select a programming hardware setup appli	hardware setu es only to the cu	p to use when prog urrent programmer	gramming devices window.	s. This programming
Currently selected ha	ardware: No H	lardware		•
Available hardware	items USB	Blaster [USB-0]		
Hardware	1.7.	Server	Port	Add Hardware
Upp-biaster	[A]	Local	038-0	Remove Hardware
				(B)
				[P]

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Model: Andromeda-P2	Date: 16-Nov-18	No.: RM0B1055a
9. Select "Add File" [A] to let the setup read the	FPGA config data file.	

		The second			manual (
Hardware Setup	No Hardware	Mode:	JTAG	•	Progress:			
Enable real-time ISP to	allow background program	ming (for MAX II and M	AX V devices)					
Ja ^{Na} Start	Fie	Device	Checksum	Usercode	Program/ Configure	Verify	Blank- Check	Examine
ulle Stop								
Auto Detect	[A]							
M Coleto	L. 1							
Add File								
Change File								
Save File								
Add Device								
t ^r ≌ ∪p								
↓ ^N Down								
	-			201				
AL 🙆 🖾 🔼	Search>>			~				
Type ID Me	ssage							

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10. Check the p/n described on the sticker [A]. If the p/n is 'M5185212', select the FPGA config data file 'oasis_ver.x_for_M5185212.jic.' If the p/n is 'M5185245', select the FPGA config data file 'oasis_ver.x_for_M5185245.jic.'



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odel: Andron	neda-P2					Date	ə: 16-	Nov-18	No.: RM0B1055a
Check the c	heck boxes [A] as sho	wn belo	ow.					
Quartus II 32-bit	t Programmer - [Chain1.	cdf]*							
Ele Edit Yew Pr	cocessing Icols Window	Help 🦃				Sear	ch altera.co		
Hardware Setup	US8-Blaster [US8-0]	Mode	: JTAG	•	Progress:				
Enable real-time IS	P to allow background program	nming (for MAX II and	MAX V devices)						
Start	File	Device	Checksum	Usercode	Program/ Configure	Verify	Blank- Check	Examine	
Stop	Factory default enhanced C:/altera_programme	SAGXFB1H4 EPCQ256	02882FFF 1E7C8614	FFFFFFF	v				
Auto Detect									
C Delete					/				
Add File				[A	1				
Change File			m	*					
Save File									
Add Device									
T ^{ille} Up	EPCQ256							8	
å ^t ≌ Down		Ä.						-	
× AI 🕄 🛆	🔊 🐼 💎 < <search>:</search>	>		~					
Type ID	Message								
sapes									
System (Proces	ssing_/								

m0b2d9002

12. Select "Start" to start the download.

🔔 Hardware Setup	USB-Blaster [USB-0]	Mode:	JTAG	•	Progress:			
Enable real-time ISP t	to allow background program	ming (for MAX II and M	IAX V devices)					
Start	Fie	Device	Checksum	Usercode	Program/ Configure	Verify	Blank- Check	Examine
We Stop	Factory default enhanced C:/altera_programme	SAGXFB1H4 EPCQ256	02882FFF 1E7C8614	FFFFFFF	V			
X Delete	[A]							
Add File			89					
Save File								
Add Device								
t ^h ≌ Up	EPCQ256							
↓ [®] Down	·							
	Ť							
		Ň						
AI 🔕 🔝 🚹	🛛 🐼 💎 < <search>></search>			~				
Type ID M	lessage							



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Model: Andromeda-P2	Date: 16-Nov-18	No.: RM0B1055a
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13. When "Progress" indicates "100% (Successful)", the download is complete. If the download fails, select "Start" again to retry.



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14. Turn the machine off and disconnect the USB BLASTER cable. Then reinstall the removed covers.

Technical Bulletin

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Model: Andromed	a-P2	lov-18	No.: RM0B1056		
Subject: Important Paper Tra	Prepared	by: Hiroaki Matsui			
From: Sales Strate					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (nation eceive)	Action re Service r Retrofit in Tier 2	quired nanual revision nformation X Tier 0.5

IMPORTANT NOTICE

PROBLEM

The following two Advanced Settings were eliminated on Andromeda-P2, but falsely appear on the screen.

#1227: Paper Transfer Nip Operation Mode

#1228: Paper Transfer Nip

SOLUTION

Firmware will be corrected to eliminate these items from the Advanced Settings list.

Until then, **please advise your customers that these settings do not take effect.** Operators instruction will be also revised in near future.

The following tables regarding Advanced Settings #1227 and #1228 were deleted from the Operating Instructions.

1227 [Banar Transfer Nin Oneration Mode]								
1227 [Paper Transfer Nip Operation	on Model							
Adjust shock for when paper is fed through paper transfer roller. Selecting a higher value (1->4) for mode reduces shock. * Productivity will be lowered if a mode other than Off is set.								
Setting Item	Setting Item Values							
01: Setting [0:Off]								
[1://iode 1]								
[2:/vlode 2]								
[3://lode 3]								
	[4:Mode	4]						
	[5:Low Pro	essure Mode]						
1228 [Paper Transfer Nip]								
[Nip Setting]								
Adjust the timing of contact / disengage opera	ation.							
Setting Item	Max. Value	Min. Value	Step	Unit				
02: On Timing/03: Off Timing	50	-50	1	step				

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Model: Andromeda-P2

Date: 19-Nov-18

No.: RM0B1056

- •
Paper transfer gap
1227 [Paper Transfer Nip Operation Mode]
1228 [Paper Transfer Nip]
Function
Adjusts the gap between the PTR and ITB and the timing of when to contact/separate the PTR and ITB.
Default setting of 1227: [Paper Transfer Nip Operation Mode] by type/thickness:
1. OFF: Thick 1 - 2, envelope, transparency, plastic folder, magnet sheet
 Small gap: Thick 3 - 5 (excluding envelope, transparency), Thick 6 - 8 (including coated, metallic/pearl)
3. Large gap: (Not used)
4. Small/Large gap: Thick 6 - 8 (excluding coated, metallic/pearl)
When to use
Image is affected/abnormal at the trailing edge
Related Troubleshooting
None

Please delete the following table from your FSM in section:

6. Troubleshooting > Correspondence Table for Adjustment Settings > Menu Items in IMSS Settings

Paper Transfer Nip Operation Mode (1227)	-	1	Setting
Paper Transfer Nip	Nip Setting	2	On Timing
(1228)		3	Off Timing

Technical Bulletin

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Model: Andromeda—P2			Date: 16-Nov-18		No.: RM0B1057
Subject: Troubleshooting false jam detection caused by broken encoder of the transfer timing roller					by: Hiroaki Matsui
From: Sales Strategy Section, 1st CP Business Dep.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform Electrical Transmit/re Other (nation eceive)	Action re Service r Retrofit in Tier 2	quired nanual revision nformation Tier 0.5

SYMPTOM

The following jams are falsely detected as a result of a damaged encoder of the transfer timing roller:

- Jam 29 (PTR Timing Sensor)
- Jam 30 (Pre-registration Adjustment Error)
- Jam 79 (PTR Timing Sensor)
- Jam 80 (Sub Registration Adjustment Error)

CAUSE

The transfer timing roller shifts toward the encoder and eventually breaks the encoder. This happens due to the thrust motion, which abrades and breaks the spacer and E-type retaining ring over time.



Model: Andromeda—P2

Date: 16-Nov-18

No.: RM0B1057

SOLUTION

Take the following two actions at the PM cycle.

1. Check the spacer. If it is 0.5mm or thinner, replace it with a new set of spacers, and then apply grease to the shaft of the transfer timing roller.

	P/N	Description	Q'ty
Originally installed	H5194238	SPACER:ROLLER:CONNECTING	1
New	G0603293	SPACER:6.1X8.5X0.5	3

2. Apply grease to the E-type retaining ring that fixes the transfer timing roller with the ball bearing.

NOTE: For grease, use FLUOTRIBO GREASE MG:100G (VSSG9002).

Procedure

- 1. Remove the drawer unit. (See following section of the FSM: 4. Replacement and Adjustment > Registration Unit (Drawer Unit) > Drawer Unit.)
- 2. Remove the registration guide plate [A].



3. Verify the thickness of the spacer [A].



This spacer is supposed to be 1.6mm thick. If it is 0.5mm or thinner, replace with a new set of spacers [B].

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Model: Andromeda—P2

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- 4. Apply grease to both front and rear ends of the transfer timing roller shaft. Turn the shaft so that the grease distributes evenly around the shaft.
 - For grease, use FLUOTRIBO GREASE MG:100G (VSSG9002).
 - <u>See pictures below for the optimal amount of grease.</u>



5. Apply grease to the E-type retaining ring that fixes the transfer timing roller with the ball bearing, regardless of whether the spacer was replaced or not. Use the above grease.

Technical Bulletin

Model: Andromeda-P2			Date: 16-Nov-18		No.: RM0B1058
Subject: Misfeed jams with coated paper fed from Multi Bypass Tray BY5020					by: Hiroaki Matsui
From: Sales Strategy Section, 1st CP Business Dep.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform Electrical Transmit/re Other (nation eceive)	Action re Service r Retrofit in Tier 2	quired nanual revision nformation Tier 0.5

SYMPTOM

Misfeed jams occur when feeding coated paper from Multi Bypass Tray BY5020.

CAUSE

Calcium carbonate contained in the coating adheres to the urethane rollers, causing the rollers to slip when feeding.

SOLUTION

- 1. Clean the rollers to avoid slippage.
- 2. Feed plain paper. This will remove calcium carbonate from the rollers.
- 3. If the problem persists, replace the urethane rollers with the EPDM rollers. For the procedure, refer to FSM section: 1. Replacement and Adjustment > Rollers.

Pick-up roller

	P/N	Description
Urethane	AF030080	PAPER FEED ROLLER:PICKUP
EPDM	AF030071	PICK-UP ROLLER

Feed roller

	P/N	Description
Urethane	AF031088	PAPER FEED ROLLER:FEED:MANUAL FEED
EPDM	AF031071	PAPER FEED ROLLER:FEED

Separation roller

	P/N	Description
Urethane	AF032098	PAPER FEED ROLLER:SEPARATE
EPDM	AF032041	SEPARATION ROLLER - BYPASS FEED

Technical Bulletin

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Model: Andromed	a-P2		Date:		No.: RM0B1059
Subject: Troublest	nooting SC515-06			Prepared	by: Hiroaki Matsui
From: Sales Strate	egy Section, 1st CP Busines	ss Dep.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform	nation eceive)	Action re	quired nanual revision nformation

SYMPTOM

SC515-06 (Contact Motor HP Error (Registration Contact Home Position Sensor T))

CAUSE

When the [C3] guide plate is opened and then closed, for instance, to remove a jam, the guide plate is not shut completely before pushing back in the registration (drawer) unit or the guide plate opens due to the shock generated when the drawer unit is pushed back in. Initialization under this condition causes the registration contact timing motor to miss steps, resulting in the SC.

The problem tends to occur especially when the guide plate is closed slowly.



The guide plate is shut but the latch is open.



The shock generated when the drawer unit is pushed back in causes to open the guide plate.

SOLUTION

Check the C3 guide plate.

Please inform your customers to make sure this guide plate is shut completely whenever the opening/closing the drawer unit.

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Model: Andromeda-P2			Date: 16-Nov-18		No.: RM0B1060
Subject: Image registration adjustments required at new site installations					by: J. Ohno
From: Sales Strategy Section, 1st CP Business Dep.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (nation eceive)	 ☐ Action re ⊠ Service n ☐ Retrofit in ⊠ Tier 2 	quired nanual revision nformation Tier 0.5

SYMPTOM

Front-to-back image registration cannot be adjusted with the Auto Adjust Image Position function.

CAUSE

The image registration procedures required at new site installations were performed in the wrong order, because the procedures and their orders are not described comprehensibly in the FSM.

SOLUTION

For the image registration adjustments required at new site installation, refer to the flowchart on the next page.

|--|

Model: Andromeda-P2

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No.: RM0B1060

Start the procedure after completing the installation; after saving the SMC report.

Start
Level the machine by referring to the following section of the FSM.
2. Installation > Main Machine Installation > Installation Procedure > Machine Level Adjustment
Check the trailing edge skew by referring to the following section of the FSM.
2. Installation > Main Machine Installation > Installation Procedure > Image Position Adjustment at Main Machine Installation > Check the trailing edge skew
Correct the skew by referring to the following section of the FSM.
4. Replacement and Adjustment > Image Adjustment > Adjustment Related to Transport Precision > Paper Transfer Unit (PTR) Angle Correction (Trailing Edge Skew Adjustment)
Is the skew within the No
0.2mm (olerance?
Yes
 4. Replacement and Adjustment > Image Adjustment > Image Position Adjustment Using IMSS and Adjustment Settings for Operators > Adjusting the Image Position on Side 1 > (a) Adjust the paper skew
Tolerance: 0.2mm (for a 400mm size image printed on A3)
Is the skew within the No
Yes
Adjust the percendicularity by referring to the following section of the FCM
 4. Replacement and Adjustment > Image Adjustment > Image Position Adjustment Using IMSS and Adjustment Settings for Operators > Adjusting the Image Position on Side 1 > (b) Adjust the image skew
Tip:For paper sizes 297mm (A3)~330.2mm in width, the image shifts 0.3mm for every 10input. Input a positive value or a negative value depending on the direction of the slant.Note that the amount of shift is proportional to the width of the image.
Tolerance: 0.15mm (for a 280mm size image printed on A3)
↓
Is the skew within No
tolerance?
Ves

Technical Bulletin

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Model: Andromeda-P2			Date: 26-Nov-18		No.: RM0B1061
Subject: Registration Unit CIS Cleaning Procedure			Prepared by: J. Ohno		
From: Sales Strategy Section, 1st CP Business Dep.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (nation eceive)	Action re Service n Retrofit in Tier 2	quired nanual revision nformation Tier 0.5

SYMPTOM

Jam 97 (over-skew) / Jam 98 (over-shift)

CAUSE

Paper dust accumulates on the shading plate that positions under the CIS in the registration unit and affects the CIS output level. Paper edges are not detected with accuracy in this state. The risk of the problem is higher under the following conditions:

- Color paper jobs
- Paper contains a lot of paper dust
- Most jobs are run on the same size, i.e. front/rear edges of the paper follow the same path and causes paper dust to fall on the same area.



Shading plate (x3)







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Model: Andromeda-P2

Date: 26-Nov-18

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SOLUTION

Clean the shading plate at the following cycle.

- Suggested: 200K
- Mandatory: 950K

NOTE: Make sure to clean in the prescribed cycle above or paper dust will eventually become unremovable from the black felt covering the shading plate and the felt will have to be replaced.

What you will need

Duster spray with a nozzle length of minimum 120mm and diameter no larger than 3mm



NOTE: The duster spray is not a service part. Please procure locally from the market.

Cleaning procedure

- 1. Open the front doors of the Imaging section and pull out the registration (drawer) unit.
- 2. Remove the handle [A]. (screw x1)
- 3. Remove the inner cover [B]. (screw x5)





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4. Lift the lever [A] and open the cover.



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5. Direct the nozzle as shown below and spray entirely.



CIS 1 shading plate



CIS 2 shading plate

6. Direct the nozzle as shown below and spray entirely as you turn the knob [A] clockwise.



7. Put back the lever, handle and inner cover.

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Model: Andromeda-P2			Date: 29-Nov-18		No.: RM0B1062
Subject: Check procedure to ensure proper PTB installation					by: Hiroaki Matsui
From: Sales Strategy Section, 1st CP Business Dep.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (nation eceive)	 ☐ Action re ⊠ Service r ☐ Retrofit in ⊠ Tier 2 	quired nanual revision nformation Tier 0.5

Please add the following three check procedures to your FSM, in section:

4. Replacement and Adjustment > Paper Transfer Unit (PTR) > Paper Transfer Belt Unit > When installing the paper transfer belt

Use these procedures to ensure proper installation of the PTB without a slant.

Check Procedure 1: Visual inspection and using your fingers

Photo to the right shows an example of the belt installed in a slant with the edges running over [A] and the belt wavering [B].

Touch the belt edge with your fingers. If the edge is running over, the difference in level should be at least 1.5mm.

Note that wavering can occur even when the belt is installed correctly without the edge running over.



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Check Procedure 2: Verifying the damage of the enforcement tape

Look at the reinforcement tape attached to the edge of the belt. Cracks and/or bubbles [A] indicate that the belt has run over the edge. They may not be observed, if the belt was positioned improperly only for a short time.



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Check Procedure 3: Visual inspection of the belt guide

Photo [A] shows an example of a belt that ran over the edge.

Photo [B] shows an example of a correctly installed belt. The color of the belt guide remains red.



• When the belt runs off the edge, abrasion causes the belt guide to change its color from red to gray. Area [C] shows the affected area and [D] the unaffected area.



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Model: Andromeda-P2		Date: 29-Nov-18		No.: RM0B1063	
Subject: FSM correction - Revised procedure for replacing the PTR Pressure Motor			Prepared	by: Hiroaki Matsui	
From: 1st Tech Service Sect., PP Tech Service Dept.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (nation eceive)	Action re Service r Retrofit in Tier 2	quired nanual revision nformation

Please make the following corrections/additions in red to your FSM, in section:

4. Replacement and Adjustment > Paper Transfer Unit (PTR) > PTR Pressure Motor

1. Correction of the PTR Pressure Motor Replacement Procedure

- <u>1.</u> Open the rear box. (エラー! 参照元が見つかりません。)





Note

 When removing the motor bracket [A], disconnect a connector and open two clamps that are on the inside. (☞×1, ≪×2)



When removing the PTR pressure motor bracket, adjust positioning using the following procedure: Position adjustment for the drawer unit and PTR motor



Note

When replacing the PTR pressure motor, remove the white collar [A], spring [B], joint [C] from the old motor shaft and attach them to the new motor.

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After installation, push the joint, check that the spring tension is applied, make sure that it slides smoothly, and apply VSSG0007 ALVANIA 2 GREASE to the joint.

Note

Apply grease to the areas colored in orange below for both joints.



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Model: Andromeda-P2	Date: 29-Nov-18	No.: RM0B1063
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Position adjustment for the drawer unit and PTR motor

After replacing the drawer unit or removing the PTR pressure motor bracket, do the position adjustment procedure shown below.

😭 Important 🔵

It requires the removal of the drawer unit and work that should be done on the front and rear side at the same time. So two or more persons must do the procedure.

Vote

Prepare the positioning adjustment jig [A].

Part No.: M0B16240



m0b2d4081

- <u>1.</u> This step is required when the drawer unit is replaced: Remove the PTR pressure motor bracket. (エラー! 参照元が見つかりません。)
- 2. Remove the coupling from the PTR pressure motor.



OPx1

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Note

A spring and white collar are attached inside the coupling.

3. Reinstall the motor bracket whose coupling is removed in the previous step, and then set the bracket temporarily so that it has some room to move.





Coloration Important

When removing the coupling, make sure that the key, which is inside the coupling, does not drop off.



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m0b2d4084

<u>6.</u> Attach the positioning adjustment jig [A] to the shaft whose coupling was removed in the previous step and attach the jig using the screw removed in the previous step. Do not fasten it tightly.





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<u>7.</u> Set the drawer unit (but do not push it in yet), to which you attached the jig [A] in the previous step, to the main machine. Then secure the drawer unit with the screws on the side rails.



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<u>8.</u> From the rear side, one of the two persons must make sure that the PTR pressure motor shaft [B] is inserted into the hole in the jig [A] while the other person pushes the drawer unit in carefully and firmly and locks the unit.



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9. Secure the PTR pressure motor bracket [A] firmly, with the drawer unit locked.



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<u>10.</u> Pull out and push in the drawer unit carefully several times.



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- 11. Remove the drawer unit again. (エラー! 参照元が見つかりません。)
- **12.** From the rear side, one of the two persons must attach and hold the coupling [A] on the PTR pressure motor shaft while the other person fastens the screw securing the coupling.

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RICOH

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OPx1

m0b2d4089

Vote

Reinstall the parts on the PTR pressure motor shaft in the following order: White collar [A] > Spring [B] > Coupling [C].



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After that, push the reinstalled coupling in to make sure that spring tension is applied and the coupling slides smoothly, and apply VSSG0007 ALVANIA 2 GREASE to the joint.

Vote

Apply grease to the areas colored in orange below for both joints.



13. Apply VSSG0007 ALVANIA 2 GREASE to the colored area of the coupling on the rear side of the drawer unit shown in the diagram.



- **14.** Set and secure the drawer unit with the screws on the side rails, and then push it in carefully and lock it.
- 15. Reinstall the PTR unit.
- **16.** Reinstall the removed TDCU, and all covers.

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Model: Andromeda-P2		Date: 30-N	lov-18	No.: RM0B1064	
Subject: FSM correction - Notes on handling of the PTR			Prepared	by: Hiroaki Matsui	
From: Sales Strategy Section, 1st CP Business Dep.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (nation eceive)	 ☐ Action re ⊠ Service r ☐ Retrofit in ⊠ Tier 2 	quired nanual revision nformation Tier 0.5

Please make the following corrections/additions in red to your FSM, in sections:

3. Preventive Maintenance > Cleaning Points (2) > Paper Transfer Roller Unit (PTR) > Rollers in the Paper Transfer Belt Unit

4.Replacement and Adjustment > Paper Transfer Unit (PTR) > Paper Transfer Belt Unit > When installing the paper transfer belt

See next page for the revised points.

Model: Andromeda-P2

Date: 30-Nov-18

No.: RM0B1064

Comportant 💦

After replacing the paper transfer roller or cleaning it, lubricate the whole circumference of the plastic part [A] of the collars with DrySurf grease about four turns.

If the counter value of SP7-621-001 (PM Counter/#Development Unit(Bk)) is greater than 950k and less than1900k, dust off the plastic piece [A] of the PTR with **dry cloth**.

NOTE:

- DO NOT use alcohol or water. Doing so will remove grease applied at the factory from the plastic part [A].
- DO NOT touch the plastic part [A]. Oil from your fingers will affect the grease.



If the counter value of SP7-621-001 (PM Counter/#Development Unit(Bk)) is greater than 1900k, replace the paper transfer roller [B] with a new one (p/n: M0B16249).

This helps the PTB (paper transfer belt) to revolve properly on the guide without derailing, preventing unwanted damages to the belt.

Reissued: 25-Jan-18

Model: Andromeda-P2

Date: 13-Dec-18

No.: RM0B1067a

RTB Reissue

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

Subject: ACD unit related troubleshooting information			Prepared by: Hiroaki H Matsui		
From: Sales Strategy Section, 1st CP Business Dep.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/rec Other (tion eive)	 Action required Service manual revision Retrofit information Tier 2 	

This bulletin provides the following ACD unit related troubleshooting information:

- Flowchart to isolate the cause of the problem
- SC693-xx causing factors
- List of known problems
- Cannot capture ACD unit logs
- Notes on reinstalling the ACD unit firmware

Latest ACD unit f/w version as of Jan 24, 2019

ACD Unit System	01.007.00
ACD Unit M-FPGA	01.001.00
ACD Unit M-Ri	01.001.00
ACD Unit I-FPGA	01.001.00
ACD Unit I-Ri	01.002.00
ACD Unit Param	01.006.00



PAGE: 3/4

Reissued	: 25-	lan-1	8

Model: Andromeda-P2

Date: 13-Dec-18 No.:

No.: RM0B1067a

SC693-XX causing factors

Causing Factor	Check Procedure	Remedy
ACD f/w defected	Access the ACD unit in the same procedure as when capturing the logs with an ethernet cable and check if the folder 'piramid' exists under the directory /home/ricoh.	If the folder 'piramid' does not exist, reinstall the OS and ACD app.
VMCU and/or VICU board defective	Check if the red LED is lit on the board.	If lit in red, replace the board or the entire ACD unit.
Loose cable connection	Verify proper connection at both ends of the cable connecting the ACD unit and printer engine.	Reconnect the cable.

For cases other than the above, please provide SMC and ACD unit logs for investigation.

List of known problems

Known problems	Solution
SC693-06 occurs with 765mm+ banner sheets	Fixed in ACD Unit System Ver.01.007.00 or newer.
SC693-02 occurs if the front door is opened xxx the job.	Fixed in ACD Unit System Ver.01.004.00 or newer.
SC693-06 occurs after clearing a jam.	Fixed in ACD Unit System Ver.01.006.00 or newer.
SC693-02 occurs if the calibration set or halftone or Use Maximum Density settings is different from the previous job.	Fixed in ACD Unit System Ver.01.005.01 or newer.
SC693-02 occurs when continuously printed b/w jobs or test patterns.	Fixed in ACD Unit System Ver.01.006.00 or newer.
Cannot print out the test chart when generating the ACD properties due to a paper size mismatch error.	Currently under investigation. Please provide Fiery logs for investigation.

For cases other than the above, please provide SMC and ACD unit logs for investigation.

Reissued: 25-Jan-18

Model: Andromeda-P2	Date: 13-Dec-18	No.: RM0B1067a
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Capture the ACD unit logs

See relating **RTB# RM0B1023**(SM Correction: Auto Color Diagnosis Unit: Storing Service Logs on SD Card)

In case you cannot capture ACD unit logs

If the ACD unit power turns On but the ACD unit logs cannot be captured, try the below.

 Copy and paste the debug file 'vpudebug' attached below to the root directory of the SD card or USB flash drive. (Right-click → Copy → Right-click on the root directory of the SD card → Paste.)



- 2. Insert the SD card or USB flash drive to the ACD unit and turn On the printer power.
- 3. Try capturing the logs with the ethernet cable.

See **RTB#RM0B1036** page 6/7 " **Capturing logs with an Ethernet cable**" for procedure.

Notes on reinstalling the ACD unit firmware

When reinstalling the ACD unit f/w, make sure to do the following as a set:

- ACD unit FR correction parameter back up procedure (See relating RTB# RM0B1049)
- Re-generate the ACD properties
- Error Codes for ACD Unit Update Failure (See relating **RTB# RM0B1050**)

PAGE: 1/2

Model: Andromeda-P2		Date: 12-Dec-18		No.: RM0B1065	
Subject: Main Scan Shading & Auto Color Calibration does not work properly due to fluctuation of TIM-Red readings			Prepared I	by: J. Ohno	
From: Sales Strategy Section, 1st CP Business Dep.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform Electrical Transmit/re Other (nation eceive)	Action re Service n Retrofit ir Tier 2	quired nanual revision nformation

SYMPTOM

Main Scan Shading Correction and Auto Color Calibration may result in exceeding the maximum allowable Delta E due to the fluctuation of the TIM-Red readings.

CAUSE

The problem occurs because Main Scan Shading and Auto Color Calibration both run by delivering the pages face-down. With the pages delivered face-down, the sheets may buckle when entering the curved invert/exit path, causing the TIM-Red readings to fluctuate.

SOLUTION

Permanent solution

The Engine f/w will be modified, to deliver sheets face-up for Main Scan Shading and Auto Color Calibration.

Temporary solution

Until the modified Engine f/w becomes available, create a custom paper specifically for Main Scan Shading and/or Auto Color Calibration, to prevent the sheet from buckling.

- 1. Log in with the Administrator authentication.
- 2. Go to [Tray Paper Settings] > [Custom Paper Management].
- 3. Create a custom paper for Main Scan Shading and/or Auto Color Calibration in the following steps.
 - A) To use an existing custom paper, select the entry and press the Edit icon.
 - B) To create a new custom paper, import from the library.
- 4. Press [Advanced Settings].
- 5. Modify the [#1331 Motor Speed] setting as follows.

[08: Paper Output: Entrance]	: -0.8% (default: 0.0%).	
[10: Cooling Transport]	: 0.0% (default: 0.8%).	
Model: Andromeda-P2	Date: 12-Dec-18	No.: RM0B1065
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- 6. Save the custom paper with a name that can be easily identified by your customer. If you edited an existing custom paper at step 3, select [Add New] to prevent changes to the original custom paper entry selected.
- 7. Using the custom paper created, do Main Scan Shading and/or Auto Color Calibration.

NOTE: When running the job, select the custom paper for the job, not the custom paper created specifically for Main Scan Shading and/or Auto Color Calibration.



Model: Andromeda-P2 (M0B1/M0B2)		Date: 12-Dec-18		No.: RM0B1066	
Subject: Troubleshooting: Cannot print in simplex face down or duplex			Prepared by	r: Takuya Hirakawa	
From: PPCS section	n CIP FQM Department Q	AC			
Classification:	Troubleshooting	Part inform	nation	Action re	quired
	Mechanical	Electrical		Service r	nanual revision
	Paper path	Transmit/receive		🗌 Retrofit i	nformation
	Product Safety	Other ()	🛛 Tier 2	Tier 0.5

SYMPTOM

Cannot print in simplex face down or duplex.

CAUSE

The operation time of the inverter unit gate pawl and shape of the pawl bracket were changed, which altered the point where the pawl contacts the cushion. As a result, impact is greatly magnified, which damages the pawl bracket and prevents the pawl from operating correctly.

SOLUTION

Replace to the following modified parts using the **PROCEDURES** below.

Part number	Description	Q'ty	Int
M0B14500	GATE PAWL:REVERSE EXIT:ASS'Y	1	X/O

PROCEDURES

1. Remove the duct cover [A].



2. Open the radiator unit [A].



m205a2398



Model: Andromeda-P2 (M0B1/M0B2)

Date: 12-Dec-18

No.: RM0B1066

3. Disconnect the TRB 3 connector.



m0b2d4778

4. Disconnect the FFC on the rear side of the exposure unit [A].



5. Open the de-curler unit, and then rotate the revolver (TIM-RED) before removing the exposure unit, so as not to damage the white surface [A].



6. From the front side of the machine, remove the screws on the brackets (front/rear) [A] of the unit.



Remove the exposure unit [A]. 7.



m0b2d4781



Model: Andromeda-P2 (M0B1/M0B2)

Date: 12-Dec-18

No.: RM0B1066

8. From the rear side of the machine, remove the connector of the de-curler relay motor [A], and then remove the timing belt [B].



9. Remove the gear [A].





Model: Andromeda-P2 (M0B1/M0B2)

Date: 12-Dec-18

No.: RM0B1066

10. Remove the bearing [A].



11. Open the front door of the fusing section [A][B].



m205z5001

12. Remove the inner cover [A].





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Model: Andromeda-P2 (M0B1/M0B2)

Date: 12-Dec-18

No.: RM0B1066

13. Remove the screws of the arm [A] and the spring [B].





14. Remove the bearing [A].





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Model: Andromeda-P2 (M0B1/M0B2)

Date: 12-Dec-18

No.: RM0B1066

15. Remove the gate pawl [A] and then replace with the modified parts.



PAGE: 1/4

Model: Andromeda-P2		Date: 13-Dec-18		18	No.: RM0B1067	
Subject: ACD unit related troubleshooting information			Prepared by: Hiroaki H Matsui			
From: Sales Strate	gy Section, 1st CP Business D)ep.				
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part in Electric Transr Other 	format cal nit/rec (tion eive)	Actio	n required ice manual revision ofit information 2

This bulletin provides the following ACD unit related troubleshooting information:

- Flowchart to isolate the cause of the problem
- SC693-xx causing factors
- List of known problems
- Cannot capture ACD unit logs
- Notes on reinstalling the ACD unit firmware

Latest ACD unit f/w version as of Nov 28, 2018

ACD Unit System	01.006.00
ACD Unit M-FPGA	01.001.00
ACD Unit M-Ri	01.001.00
ACD Unit I-FPGA	01.001.00
ACD Unit I-Ri	01.002.00
ACD Unit Param	01.005.00



PAGE: 3/4

Model: Andromeda-P2

Date: 13-Dec-18

No.: RM0B1067

SC693-XX causing factors

Causing Factor	Check Procedure	Remedy
ACD f/w defected	Access the ACD unit in the same procedure as when capturing the logs with an ethernet cable and check if the folder 'piramid' exists under the directory /home/ricoh.	If the folder 'piramid' does not exist, reinstall the OS and ACD app.
VMCU and/or VICU board defective	Check if the red LED is lit on the board.	If lit in red, replace the board or the entire ACD unit.
Loose cable connection	Verify proper connection at both ends of the cable connecting the ACD unit and printer engine.	Reconnect the cable.

For cases other than the above, please provide SMC and ACD unit logs for investigation.

List of known problems

Known problems	Solution
SC693-06 occurs with 765mm+ banner sheets	Fixed f/w scheduled for release in Dec 2018.
SC693-02 occurs if the front door is opened xxx the job.	Fixed in ACD Unit System Ver.01.004.00.
SC693-06 occurs after clearing a jam.	Fixed in ACD Unit System Ver.01.006.00.
SC693-02 occurs if the calibration set or halftone or Use Maximum Density settings is different from the previous job.	Fixed in ACD Unit System Ver.01.005.01.
SC693-02 occurs when continuously printed b/w jobs or test patterns.	Fixed in ACD Unit System Ver.01.006.00.
Cannot print out the test chart when generating the ACD properties due to a paper size mismatch error.	Currently under investigation. Please provide Fiery logs for investigation.

For cases other than the above, please provide SMC and ACD unit logs for investigation.

Model: Andromeda-P2

Date: 13-Dec-18

Capture the ACD unit logs

See relating **RTB# RM0B1023**(SM Correction: Auto Color Diagnosis Unit: Storing Service Logs on SD Card)

In case you cannot capture ACD unit logs

If the ACD unit power turns On but the ACD unit logs cannot be captured, try the below.

 Copy and paste the debug file 'vpudebug' attached below to the root directory of the SD card or USB flash drive. (Right-click → Copy → Right-click on the root directory of the SD card → Paste.)



- 2. Insert the SD card or USB flash drive to the ACD unit and turn On the printer power.
- 3. Try capturing the logs with the ethernet cable.

See **RTB#RM0B1036** page 6/7 " **Capturing logs with an Ethernet cable**" for procedure.

Notes on reinstalling the ACD unit firmware

When reinstalling the ACD unit f/w, make sure to do the following as a set:

- ACD unit FR correction parameter back up procedure (See relating RTB# RM0B1049)
- Re-generate the ACD properties
- Error Codes for ACD Unit Update Failure (See relating **RTB# RM0B1050**)

PAGE: 1/1

Model: Andromeda-P2		Date: 18-Dec-18		No.: RM0B1068	
Subject: FSM correction - PTR replacement procedure			Prepared	by: Hiroaki Matsui	
From: Sales Strate	gy Section, 1st CP Busines	s Dep.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform	nation eceive)	Action re Service r Retrofit ir	quired nanual revision nformation Tier 0.5

Please make the following correction in red to your FSM, in sections:

3. Preventive Maintenance > Cleaning Points (2) > Paper Transfer Roller Unit (PTR) > Rollers in the Paper Transfer Belt Unit

4. Replacement and Adjustment > Paper Transfer Unit (PTR) > Paper Transfer Belt Unit

> When installing the paper transfer belt

Correction

Comportant)

After replacing the paper transfer roller or cleaning it, lubricate the whole circumference of the plastic part [A] of the collars with DrySurf grease about four turns.

The paper transfer roller (the service parts as well) is lubricated at the factory and does not require additional lubrication when replacing.

See also RTB #RM0B1064.

PAGE: 1/5

Model: Andromeda-P2		Date: 21-DEC-18		No.: RM0B1069	
Subject: Jam 97/98 with preprinted media			Prepared	by: Hiroaki Matsui	
From: Sales Strate	gy Section, 1st CP Busines	s Dep.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (nation eceive)	 ☐ Action re ☐ Service r ☐ Retrofit in ☑ Tier 2 	quired nanual revision nformation

SYMPTOM

Jam 97 and/or 98 occurs with preprinted media on the condition that they do not occur with media that is not preprinted.

CAUSE

Compared to white paper, reflection of the light emitted from the CIS is weaker when color or metallic images are preprinted on the media, preventing the CIS from properly detecting the paper edges.

SOLUTION

Do the flowcharts on the following pages.

PAGE: 2/5







Technical Bulletin **PAGE: 5/5**

Model: Andromeda-P2

Date: 21-DEC-18

No.: RM0B1069

The illustrations below show examples of how you can change the position of the preprinted images.



PAGE: 1/1

Model: Andromeda-P2		Date: 21-Dec-18		No.: RM0B1070	
Subject: F/W bug causes Jam 80/28 with 431.9~437.5mm media			Prepared	by: Hiroaki Matsui	
From: Sales Strate	gy Section, 1st CP Busines	s Dep.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform Electrical Transmit/re Other (nation eceive)	Action re Service r Retrofit ir	quired nanual revision nformation Tier 0.5

SYMPTOM

Jam 80 or 28 occurs with medias that are 431.9~437.5mm in length along feed direction.

CAUSE

Firmware bug

SOLUTION

Permanent solution

Firmware will be fixed. Announcement on the release will follow by revising this bulletin.

Temporary solution

Please advise your customer to work around the problem in the method below.

- If the customer can change the paper size, change to a size 440mm or longer
- If the above is unacceptable, set the paper length in the generic settings or Advanced settings to 431.8mm regardless of the actual paper size.

PAGE: 1/2

Model: Andromeda-P2		Date: 21-Dec-18		No.: RM0B1071	
Subject: Toner droppings in LL environment		Prepared by: J. Ohno			
From: Sales strate	gy Section, 1st CP Busines	s Dep.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (nation eceive)	 ☐ Action re ⊠ Service r ☐ Retrofit in ⊠ Tier 2 	quired nanual revision nformation Tier 0.5

Replace the following section of the FSM with the information contained in this bulletin:

6. Troubleshooting > Image Quality > Image Quality 005: Stains > Toner dropping in a low temperature and low humidity environment

SYMPTOM

- A) Toner drops and dirties the printout.
- B) An unprinted mark is observed on the printout caused by reverse transfer.
- C) Streak along the feed direction appears in yellow images.

Note that these symptoms occur very rarely.



CAUSE

Waste toner on the ITB reverse transfers to the drum and hinders proper drum cleaning when all the following conditions are met, which is a rare case:

- Jobs are printed in LL environment; DC transfer is automatically applied for the drumto-paper transfer.
- Advanced Settings [#1229: Paper Transfer Pressure] is set to 2~4.
- Solid black images are printed frequently.

SOLUTION

1. If both of the following conditions are met, set SP3-261-032 (Current Environment (Main): Abs Humidity Thresh2 (Main)) to '**3.30**' (default: 5):

PAGE: 2/2

Model: Andromeda-P2	Date: 21-Dec-18	No.: RM0B107

• The machine is installed in a room with air conditioning set to a preferable temperature and humidity.

• The machine is installed in a small space, approximately 80m² or smaller. If otherwise, set the SP to '**3.50**.'

- 2. Turn Off the machine power.
- 3. Disassemble the ITB lubrication unit and clean the lubricant bar and brush. See section '4. Replacement and Adjustment > ITB Lubrication Unit' of the FSM for the procedure.
- 4. Do the cleaning procedure described in section '3. Preventive Maintenance > Cleaning Points (1) > Intermediate Transfer Belt (ITB) Unit' of the FSM.
- Do the cleaning procedure or replace with a new set of drum cleaning blade and lubricant blade for the affected color(s). See section 'Appendices > 2. Appendices: Preventive Maintenance Tables' or '4. Replacement and Adjustment > Around the Drum > PCU Cleaning Unit Removal' of the FSM.
 - **NOTE:** When vacuuming the area outlined in red below, work carefully not to damage the edge of the cleaning blade.



When replacing, replace the cleaning blade and lubricant blade together as a set.

P/N	Description	Note
D1793581	BLADE:CLEANING:ASS'Y	
M0B13652 or M2053652	BLADE:APPLY:ASS'Y	Presently changing from M2053652 to M0B13652.

6. Turn On the machine power.

Vote Note

If you cannot identify the affected color(s), do the cleaning procedure for all colors. If the problem does not resolve, replace the cleaning brush and roller for all colors.

PAGE: 1/2

Model: Andromeda-P2 Date: 21-		Date: 21-D	ec-18	No.: RM0B1072	
Subject: Troubleshooting SC499 and Y/M toner stains on front/rear edges of SRA3		Prepared	by: J. Ohno		
From: Sales Strategy Section, 1st CP Business Dep.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (nation eceive)	Action re Service n Retrofit ir Tier 2	quired nanual revision nformation Tier 0.5

SYMPTOM

 SC499-03 (ITB speed sensor error: Not during light amount adjustment) or

SC499-40 (ITB speed sensor error: During light amount adjustment)

2. Magenta or Yellow toner stains appear at the front (operator side) and/or rear (non-operator side) edges of SRA3.

Example shown below is of Magenta.



CAUSE

Toner accumulated on the development unit drops on the ITB speed sensor or the front/rear edges of the printed paper.

Why Yellow and Magenta?

Y and M toner transferred to the ITB tends to reverse transfer when it passes under the C and K drums. To compensate for this loss, toner concentration is set higher for Y and M development units by spec. This in turn can cause unwanted toner accumulation in Y and M development units, especially under the following conditions:

- High temperature/humidity environment
- Low coverage images

Model: Andromeda-P2	Date
Model: Andromeda-P2	Da

te: 21-Dec-18

No.: RM0B1072

SOLUTION

For toner stains on front/rear edges, do 1 and 3 below.

For SC499, do 2 and 3 below.

- 1 Do the troubleshooting procedure announced in RTB #RM0B1052 'Toner drops and stains the front and rear edges.'
- 2 Clean the ITB unit.

For the procedure, refer to FSM section: 3. Preventive Maintenance > Cleaning Points (1) > Intermediate Transfer Belt (ITB) Unit.

3 Modify the following SSP settings to reduce the toner concentration of the Y and M development units.

To modify these SSP settings, use the batch file 'MYgamma.txt', debug cable and TeraTerm. See RTB #RM0B1021 for the procedure on how to use the batch file.

SSP No.	Default	Change to
SSP3-630-023	2.15	2.05
SSP3-630-024	2.25	1.95
SSP3-630-102	1.20	1.00

NOTE: These SSP settings will become standard SP settings in the Engine f/w scheduled for release in Feb, 2019.

PAGE: 1/2

Model: Andromeda-P2 Date: 26-D)ec-18	No.: RM0B1073		
Subject: Front/real	t/rear of large image is faint/truncated		Prepared by: J. Ohno		
From: Sales Strate	gy Section, 1st CP Busines	s Dep.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform Electrical Transmit/re Other (nation eceive)	Action re Service n Retrofit ir	quired nanual revision nformation Tier 0.5

SYMPTOM

Image is faint or truncated at the edges if its length is 321.5mm or longer in main scan direction.

The symptom also occurs with the registration detection marks, and therefore, affects the registration accuracy for jobs enabled of the auto registration adjustment function.

321.5mm+



CAUSE

The registration setting in main scan direction, which is unique to each machine and adjusted at the factory, is within tolerance but too near the upper limit.

Model: Andromeda-P2	Date: 26-Dec-18

SOLUTION

Do the below if the symptom is observed or the image is 321.5mm or longer across the feed direction.

Modify the five SP values below by adding and subtracting the values described in red to or from the present values.

SP No.	Description	Value to add	Example	
		fo or subtract from the present value	Before	After
SP1-078-001	CIS Ref Position Measured Value: CIS1	+190	289	479
SP1-078-002	CIS Ref Position Measured Value: CIS2	+190	270	460
SP1-078-003	CIS Ref Position Measured Value: CIS3	+190	371	561
SP1-502-001	Side-to-Side Reg Standard Value: Front Side	-2	2.8	0.8
SP1-502-002	Side-to-Side Reg Standard Value: Back Side	-2	3	1

NOTE: These SP values are unique to each machine. Make sure to check the present value and do the calculation correctly.

Cut-in S/N

The following machines are adjusted of the registration setting in main scan direction to have a larger upper margin.

Product Code	Model & Region Cut-in S/N	
M0B117	Andromeda-P2a NA(R)	5018F710010 \sim
M0B126	Andromeda-P2a EU(R)	5018F730027 \sim
M0B128	Andromeda-P2a AP(R)	5018F850001 \sim
M0B217	Andromeda-P2b NA(R)	5028F710012 \sim
M0B226	Andromeda-P2b EU(R)	5028F730007 \sim
M0B228	Andromeda-P2b AP(R)	5028F950001 \sim

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Reissued : 7-Feb-19

Model: Andromeda-P2

Date: 27-Dec-18 No.: RM0B1074a

RTB Reissue

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

Subject: Bug in Engine f/w ver.1.521 causes Gray balance adj to fail			Prepared by: Hiroaki Matsui
From: Sales Strategy Section, 1st CP Business Dep.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receive Other () 	 Action required Service manual revision Retrofit information Tier 2 Tier 0.5

SYMPTOM

SP1-613-002 (Gray Balance Adj. Result) shows always "Failed" after performing SP1-613-001 (Gray Balance Adj. Execution). This symptom appears only after upgrading the Engine FW to Ver.1.521:12 (M0B15160K).

If the gray balance adjustment has been failed, TIM-Red will not scan the color image correctly, which leads to the incorrect color calibration, main-scan shading and color homing functions in ACD unit.

NOTE: You can confirm anytime if the previous Gray Balance Adjustment has been successfully completed or not by SP1-613-002 (Gray Balance Adj. Result).

Reference Information:

Gray balance adjustment should be performed in the following two cases.

(1) After replacing with a new TIM-Red unit (p/n: M0B17075)

FSM section: 4. Replacement and Adjustment >Transferred Image Reading Module>TIM-Red Unit>After replacing the lens block and exposure unit.

(2) After replacing with a new shading plate (p/n: M0B17090)

FSM section: 4. Replacement and Adjustment >Transferred Image Reading Module>TIM-Red Unit>After replacing the Revolver (TIM-Red)

CAUSE

Bug in Engine FW Ver.1.521:12 (M0B15160K)

Reissued : 7-Feb-19

Model: Andromeda-P2	Date: 27-Dec-18	No.: RM0B1074a

SOLUTION

Temporary solution

This workaround applies only for machines installed with Engine f/w ver. 1.521:12 (M0B15160K). In other version, this workaround is not necessary, because this symptom will not appear.

- 1. Downgrade the Engine f/w to ver.1.42:12 (M0B15160G).
- 2. Do the Gray Balance Adjustment in SP1-613-001 and verify successful results by SP1-613-002.
- 3. Upgrade the Engine f/w back to ver.1.521:12 (M0B15160K).

Permanent solution

Firmware has been fixed. Upgrade the Engine FW to Ver.1.53:12 (M0B15160L) or newer.

PAGE: 1/21

Model: Andromeda-P2 Date: 17-Jan-19 No.: RM0B1075

RTB Reissue

The items in bold italics were corrected of	or added.
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Subject: Registrati	on adjustment procedures i	Prepared by: J. Ohno	
From: Sales Strate			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receive Other (information) 	 Action required Service manual revision Retrofit information Tier 2 Tier 0.5

The TIM-Mag Unit installed on the Pro C9200 Series provides registration adjustments with high accuracy.

This bulletin explains the Auto Registration Adjustment and Real-time Registration Adjustment functions in detail.

The procedures for registration adjustments were changed from the firmware released in mid Sep 2018 listed below. With the new firmware, all fine-tunings are to be made in Advanced Settings #1104, not in #1101.

Firmware/Software	Version
Engine	1.42 or later
System	1.06 or later
Animation	1.03 or later
TrayPaperSetting	2.02 or later

Reissued: 21-Feb-19

Model: Andromeda-P2	Date: 17-Jan-19	No.: RM0B1075

Auto Adjust Image Position (Auto Registration Adjustment)

Prints out test charts printed of 'registration marks' at the four corners of the pages. The TIM-Mag Unit scans these marks for the system to automatically adjust the registration.

Go to:

Tray Paper settings \rightarrow Select Tray \rightarrow Select Media setting and Edit the Settings \rightarrow Auto Adjust Image Position

NOTE: The media must be associated to the tray.

cate Paper					
Check / Change Set	tings	If the settings h	ave been changed or updated, pres	s (Save Paper).	Save Pape
Scan the Value	pdate the Value			Advanc	ed Settings
laper Weight laper Thickness laper Type	1051 - 1630 gsm - Plain Paper		Front Reg: Adjusts image posit Front&Back Reg: Adjusts both side in 2 sided print. Set paper	ion relative to pape sides, aligns back s in tray, and press (A	er in 1 sided print. ide image to front kuto Adjustment].
Coated Paper Type Paper Color Prepunched Fextured Fextured	Off White Not Prepunched Not Textured	>	Front Side Registration Front & Back Registration Test Print (Front) Test Print (Front & Back)	: 11Sheet(s : 31Sheet(s : 1Sheet(s) : 1Sheet(s)	Auto Adjustment Auto Adjustment Print Print
ippiy Jupiex Ipply Auto Paper Select Auto Adjust Image Position	No				

- Test chart and Check sheet
 - 1. Front Side Registration: Test chart x10, Check sheet x1
 - 2. Front & Back Registration: Test chart x30, Check sheet x1

NOTE:

- Number of test charts can be specified in Adjustment Settings for Skilled Operators #0107.
 - To display #0107, log in as Administrator.
 - Specifying a value smaller than the default may degrade the registration adjustment.
- > Number of check sheets can be specified in Advanced Settings #1102.

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Printer Status Tray Paper Settings Adjustment Settings for Operators Adjustment Settings for Operators		Y1 C1 C2 Y2 C2 C2 K2 K2 K	2
To the setungs have been changed or updated, press (Apply) O1 Machine: Image Position		Set No. of Printed Sheets during Auto Adjust Image Position.	
O101 Image Position: With Feed: Side 1 O102 Image Position: With Feed: Side 2		01 : Side 1: Normal/High Accuracy : 10	-
 O103 Image Position: Across Feed: Side 1 O104 Image Position: Across Feed: Side 2 		Default:10 < 1 - 100 > - + 02 : Side 2: Normal : 10	
O105 Perpendicularity Adjustment O106 Switch Paper Edge Detection Sensor	>	Default:10 < 1 - 100 > - + 03 : Side 2: High Accuracy : 18	
O107 Auto Adjust Image Position: No. of Printed Sheets O1 : Side 1: Normal/High Accuracy 10		Default18 < 8 - 100 >	
02 : Side 2: Normal 10 03 : Side 2: High Accuracy 18 04 : Align Side 1 & 2: Normal/High 10		04 : Align Side 1 & 2: Normal/High Accuracy : 10 Default:10 <1 - 100 > - +	
O108 Auto Adjust Image Positn: Magn Adjust Range: With Feed O2 Machine: Image Quality			
5		128	

- Results of the adjustment made by Auto Adjust Image Position are stored in Advanced Settings #1101 [01-18]. The system refers to these parameters when printing.
- Fine-tuning is made by adjusting the parameters in Advanced Settings #1104 [01-12]. Press **Manual Adjustment Image Position** to jump to #1104.

NOTE: #1104 cannot be adjusted during the job. Always adjust #1104 before the start of the job.

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Model: Andromeda-P2	Date: 17-Jan-19	No.: RM0B1075

Image Position Feedback Correction (Real-time Registration Adjustment)

Registration marks are printed on every page of the job, which are scanned by the TIM-Mag Unit. Correction values are calculated from the preceding 10 sheets, and then applied real-time to the succeeding pages of the job.

- Select On/Off in Advanced Settings #1103 to enable/disable real-time registration correction.
 - 1. Correction OFF: Real-time correction is turned off.
 - 2. **Detection mark Back**: Applies only front-to-back registration correction real-time.
 - 3. **Detection mark Front & Back**: Corrects the front side registration and then adjusts the back side registration to match with the front side.



- When the job starts the image is registered on the page using the parameters stored in #1101 [01-18] (which are obtained by Auto Adjust Image Position). As the job proceeds, the registration marks printed on each page are scanned to calculate the correction values, which are applied to the job real-time.
- Make fine-tunings in #1104 [01-12].

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Important Notes

- With Black paper, Color paper and Transparencies, the registration accuracy may degrade. These media types also have the risk of causing jams.
- Jam 48 may occur, if the registration mark overlaps on the printed image.
- To enable real-time registration adjustment, do Auto Adjust Image Position in advance. This is because the real-time registration is controlled using the parameters obtained from Auto Adjust Image Position.
- Running Auto Adjust Image Position will set the fine-tuning parameters in #1104 back to '0.' Repeating Auto Adjust Image Position does not enhance the registration accuracy.
- However, if the paper is changed to a different lot during the job and the squareness of the paper may have changed considerably, repeat Auto Adjust Image Position.

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	Model: Andromeda-P2	Date: 17-Jan-19	No.: RM0B1075
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TIM-Mag Unit

TIM-Mag (Transferred Image Reading Module - Magnification) provides the following functions:

- Auto color calibration
- Auto registration adjustment
- Real-time registration adjustment

Here, we will focus on the two registration functions; auto and real-time registration adjustments.



CIS	Detects the image magnification ratio in main scan direction and the coordinates of the image and media. Registration adjustment is performed based on these readings.
Trigger photo sensor	Detects the leading and trailing edges for registration adjustment in sub scan direction.
Encoder	Feeds back the sensor readings for registration adjustment in sub scan direction.

NOTE: When the TIM-Mag Unit or its surrounding components are replaced, certain adjustments are required to retrieve the registration accuracy. See RTB RM0B1035 for detail.

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The Three Types of Registration Adjustments

The following are the three available registration adjustments. Auto Adjust Image Position and Real-time Registration Adjustment basically apply the same principle with differences described in the table below.

1. Front Side Registration Adjustment

Adjusts the image registration for the front (first) side of the page.



2. Back Side Registration Adjustment Adjusts the image registration for the back (second) side of the page.



3. Front and Back Registration Adjustment Adjusts the image registration of the back side to match with the front side.



	Auto Adjust Image Position		Real-time Registration			
			Detection Mark: Back		Detection Mark: Front & Back	
	Adjust- ment	Side printed of the registration marks	Adjust- ment	Side printed of the registration marks	Adjustment	Side printed of the registration marks
Front Side	\checkmark	Front	-	-	\checkmark	Front
Back Side	\checkmark	Back	-	-	-	-
Front-to-Back	\checkmark	Front	\checkmark	Front	\checkmark	Front

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Model: Andromeda-P2	Date: 17-Jan-19	No.: RM0B1075
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Technical Details

- Front Side Registration Adjustments
- Back Side Registration Adjustments

Both adjustments are done in the following process.



• Front-to-Back registration adjustment



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Registration Adjustments in Advanced Settings

Advanced Settings No.		Function		
1101	[1 - 18]	Stores and displays the results (parameters) of Auto Adjust Image Position. These parameters are referred to for the registration adjustments including real-time registration adjustment.		
	[19]	Switches the paper edge detection sensor On/Off. (This setting basically does not have to be changed.)		
1102	[1 - 2]	Specifies the number of Check sheets printed out in Auto Adjust Image Position.		
	[03]	Specifies the accuracy of Auto Adjust Image Position for the back side.		
1103	[01]	Enables/disables Real-time Registration Adjustment.		
1104	[01 - 12]	For fine-tuning after running Auto Adjust Image Position.		

Advanced Settings #1101

Advanced Settings #1101 stores the result of Auto Adjust Image Position.

1101	Image Position	Default	Step	Range
[01, 02]	Image Position: Side 1 [Across feed, Width feed]	0	0.01	-3 to 3
[03, 04]	Image Position: Side 2 [Across feed, Width feed]		0.01	-3 to 3
[05, 06]	Image Position: Adjust Front & Back [Across feed, Width feed]		0.01	-3 to 3
[07]	Image Magnification: Side 1 [Across feed]		0.001	-0.5 to 0.5
[08]	Image Magnification: Side 1 [Width feed]	0	0.025	-0.5 to 0.5
[09]	Image Magnification: Side 2 [Across feed]	0	0.001	-0.5 to 0.5
[10]	Image Magnification: Side 2 [Width feed]	0	0.025	-0.5 to 0.5
[11]	Image Magnification: Adjust Front & Back [Across feed]		0.001	-0.5 to 0.5
[12]	Image Magnification: Adjust Front & Back [Width feed]	0	0.025	-0.5 to 0.5
[13, 14]	Trapezoidal Distortion: Side 1 [Operator side, Non Operator side]	0	0.001	-0.25 to 0.25
[15, 16]	Trapezoidal Distortion: Side 2 [Operator side, Non Operator side]	0	0.001	-0.25 to 0.25
[17, 18]	Trapezoidal Distortion: Adjust Front & Back [Operator side, Non Operator side]	0	0.001	-0.25 to 0.25

NOTE: Fine-tunings cannot be made in **#1101**.
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Advanced Settings 1104

#1104 provides parameters used for fine-tuning the registration shifts.

1104	Image Position Feedback Correction: Gap	Default	Step	Range
[01, 02]	Image Position: Side 1 [Across feed, Width feed]	0	0.01	-3 to 3
[03, 04]	Image Position: Side 2 [Across feed, Width feed]	0	0.01	-3 to 3
[05]	Image Magnification: Side 1 [Across feed]	0	0.001	-0.5 to 0.5
[06]	Image Magnification: Side 1 [Width feed]	0	0.025	-0.5 to 0.5
[07]	Image Magnification: Side 2 [Across feed]	0	0.001	-0.5 to 0.5
[08]	Image Magnification: Side 2 [Width feed]	0	0.025	-0.5 to 0.5
[09, 10]	Trapezoidal Distortion: Side 1 [Operator side, Non Operator side]	0	0.001	-0.25 to 0.25
[11, 12]	Trapezoidal Distortion: Side 2 [Operator side, Non Operator side]	0	0.001	-0.25 to 0.25

New Registration Functions

The following are the new image registration functions added to **Pro C9200 Series**, which were not available on the predecessor **Pro C9100 Series**.

Front and Back

1101 [05, 06] Image Position Adjust Front and Back

The image position of the back side is adjusted to match with that of the front side, by adding the value input to this setting to the image position correction parameter of the back side obtained from Auto Image Adjust Position.

1101 [11, 12] Image Magnification Adjust Front and Back

The image magnification ratio of the back side is adjusted to match with that of the front side, by adding the value input to this setting to the magnification correction parameter of the back side obtained from Auto Image Adjust Position.



Arrows in red indicate the locations where the correction values apply to match the back side with the front side.

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• Trapezoidal Distortion

1101 [13, 14] Image Position Trapezoidal Distortion

Adjusts the squareness of the image toward the trailing edge of the front side.



1101 [15, 16] Image Position Trapezoidal Distortion

Adjusts the squareness of the image toward the trailing edge of the back side.

1101 [17, 18] Image Position Trapezoidal Distortion: Adjust Front and Back

Adjusts the squareness of the image on the back side to match with the front side.

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1101 [19] Switch Paper Edge Detection Sensor

Specifies the paper edge detection accuracy in correcting the registration along the feed direction, by switching between the two sensors shown below.



Accuracy	Sensor type	Supported media
Normal	Visible light reflective	For color or black paper, transparencies, metallic paper
High Accuracy	Infrared reflective	White

NOTE: Since the optimal sensor is selected automatically for the media in use, this setting basically requires no adjustment.

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• 1102 [03] Adjustment Mode

Specifies the accuracy of Auto Adjust Image Position.

Normal: 0	Number of sheet	High Accuracy: 1	Number of sheet
Front side registration adjustment	10	Front side registration adjustment	10
Back side registration adjustment	10	Back side registration adjustment	18
Front and Back registration adjustment	10	Front and Back registration adjustment	10
Confirmation sheet	1	Confirmation sheet	1
Total	31	Total	39

Difference between Normal and High accuracy

When there is a large gap in between each sheet as they are fed through the paper path, the fusing temperature fluctuates (due to the heat absorbed by the paper), which affects the contraction rate of the paper and degrades the image registration accuracy. In the High Accuracy mode, the number of test charts printed is increased so that the sheets are fed in a shorter interval, thus maintains more consistent fusing temperature.

Normal mode

f: Front side

b: Back side

TIM-Mag Unit



*1: Indicates the 10 sheets scanned for adjusting the registration of the back side. Notice the long intervals (large gap) observed in the last portion.

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High Accuracy mode

f: Front side

b: Back side

TIM-Mag Unit



* 2: Indicates the 14 sheets scanned to adjust the registration of the back side. Notice there are no portions where the sheets are fed in long intervals.

• 1104 [01 – 12] Image Position Feedback Correction: GAP

Fine tunes the image registration, magnification and squareness toward the trailing edge real-time.

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Detailed Explanation of Real-time Registration Adjustment

Real-time registration: 1103 [1: Correction OFF] in Simplex job

Applies the parameters of #1101 and #1104. Registration correction is not fed back during the job; no real-time correction.

NOTE: Fine-tuning was made in #1101 on the previous firmware.

Parameters applied

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Front side	1101 Parameters obtained from Auto Adjust Image Position		1104 Fine-tuning parameters input by the operator
Every sheet	01, 02, 07, 08, 13, 14	+	01, 02, 05, 06, 09, 10

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Real-time Registration: #1103 [2: Back] in Duplex job

Registers the image on the back side so that it matches with the front side, without performing keystone registration. Correction value is calculated and applied real-time during the job.

Front side: Applies the parameters of #1101 and #1104.

Back side: Applies the parameters of #1101 for the first 10 sheets. Succeeding pages are applied of the correction parameters obtained real-time from the preceding 10 pages of the job.

Parameters applied

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When is the correction applied?



*1: Front-to-back registration correction parameter obtained from Auto Adjust Image Position

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Real-time Registration: #1103 [3: Front/Back] in Duplex job

Front-to-back registration is performed after keystone registration. Real-time correction is applied to both keystone registration and front-to-back registration during the job.

- Front Side: The first 16 sheets are applied of the parameters of Auto Adjust Image Position and #1104 (fine-tuning), and the succeeding pages are applied of the real-time correction parameters calculated during the job from every 10 pages.
- Back Side: The first several pages are applied of the parameters of Auto Adjust Image Position and #1104 (fine-tuning), and the succeeding pages are applied of the real-time correction parameters calculated during the job from every 10 pages for keystone registration. After another several pages, front-to-back registration adjustment is performed by using the keystone registration coordinates of the front side detected during the job.

Parameters applied

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*1: Front-to-back registration correction parameters of Auto Registration Adjustment

*2: Due to the time needed for calculating the correction value from the 10 sheets, the correction value is applied to the 17th sheet instead of the 11th for an A3 duplex job.

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When is the correction applied? Front Side



The timing of when the correction values apply changes depending on the following conditions:

- Length of the paper
- Line speed
- Simplex or Duplex

Example of Pro C9200 Series Standard line speed, Duplex job:

Paper size	Side	Timing
A4	Front	21st
	Back	30th
A3/SRA3	Front	17th
	Back	26th
700mm	Front	15th
	Back	24th

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Banner sheet registration Adjustment

- For banner sheets, Auto Adjust Image Position and Real-time registration correction are effective for the sizes described in the table below.
- Note that the accuracy will depend on the paper stock.

	Up to 487.7mm	Up to 700mm	Up to 1260mm
Front	Effective	Effective	Effective (*Note)
Back	Effective	Effective	Not supported

* Note:

The effect of Auto Adjust Image Position and Real-time Registration Correction may reduce for 1260mm banner printing, because the SWIFT operation does not support this size.

NOTE: The adjustments required when installing peripheral options is important in achieving good registration accuracy for banner jobs. See RD3EW001 for detail.

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Possible causes of Jam 48

- The registration marks printed on the pages are overlapped on the printed image.
- The registration marks are printed on the edges of the pages and are cut off.
 - Improper fine-tuning values might be input to #1104.
 - The actual size of the paper set on the tray is not matching with the size registered in the library.
- The density of the registration marks is too light for an unknown reason.
- The paper edge cannot be detected because the media in use has a low reflection rate, like black or dark color paper.

Within +/-0.06 degrees Squareness Main scan 0.6mm or less LT/A4 ~ 13"x19.2" (Paper stock: NBS180K) Sub scan 0.6mm or less 0.6mm or less Main scan Keystone LT/A4 ~ 13"x19.2" registration (Paper stock: POD Glosscoat 128gsm (SP-A)) 0.7mm or less Sub scan accuracy 0.9mm or less Main scan (LE as 13"x19.2" ~ 700mm reference point) (Paper stock: OK Prince high-quality 209.3gsm) Sub scan 0.9mm or less Main scan 0.9mm or less 13"x19.2" ~ 700mm (Paper stock: Banner sheet (SP-A)) Sub scan 0.9mm or less 0.5mm or less Main scan LT/A4 ~ 13"x19.2" 0.5mm or less (Paper stock: NBS180K) Sub scan Main scan 0.5mm or less LT/A4 ~ 13"x19.2" Front-to-back (Paper stock: POD Glosscoat 128gsm (SP-A)) 0.5mm or less Sub scan registration 1.5mm or less Main scan accuracy 13"x19.2" ~ 700mm (Paper stock: OK Prince high-quality 209.3gsm) Sub scan 1.5mm or less Main scan 1.5mm or less 13"x19.2" ~ 700mm (Paper stock: Banner sheet (SP-A)) Sub scan 1.5mm or less

Reference: Registration accuracy

NOTE:

• Above are test results of a specific paper stock with a +/- 0.06 degrees squareness. Registration accuracy will differ depending on the stock and its squareness.

Please follow the procedures described in this bulletin to achieve the best possible registration accuracy.

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Model: Andromeda-P2			Date: 31-Jan-19		No.: RM0B1076
Subject: 175 dot / 175 line + fine text to resolve image quality problems				Prepared by: H. Matsui	
From: Sales Strategy Section, 1st CP Business Dep.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety Paper () 		ation eceive)	 Action re Service r Retrofit in Tier 2 	quired nanual revision nformation X Tier 0.5

Please be informed that changing the [Halftone mode] on the Fiery controller to '**175 dot**' or '**175 line + fine text**' (default: 200 dot + fine text) is effective in resolving the image quality problems listed below.

Take note of the following points when making this change.

- > The granularity of the image degrades.
- > Make sure to recreate the output profile and perform calibration.
 - Vertical black (color) streaks
 - Vertical white streaks
 - Horizontal black (color) streaks
 - Horizontal white streaks
 - Jitter
 - Banding
 - Vertical white bands
 - Horizontal white bands
 - Vertical black (color) bands
 - Horizontal black (color) bands
 - Fuzzy lines
 - Low density
 - Uneven density
 - Unevenness in indefinite shape
 - Rough image

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Model: Andromeda-P2			Date: 31-Jan-19		No.: RM0B1077
Subject: SC518 at power on / door close / job start				Prepared by: H. Matsui	
From: Sales Strategy Section, 1st CP Business Dep.					
Classification:	 ☐ Troubleshooting ☐ Part information ☐ Mechanical ☐ Paper path ☐ Product Safety ☐ Other () 			Action re Service r Retrofit ir Tier 2	quired nanual revision nformation Tier 0.5

SYMPTOM

SC518 (paper cooling belt overrun error) occurs at any of the following timings:

- After turning On the machine power
- After closing the front doors
- At job start (before the first page gets printed)

CAUSE

Compared to the predecessor model, the initialization time for the Paper cooling belt centering control was reduced.

SOLUTION

Permanent solution

Engine firmware will be modified.

Release date and version information TBA.

Temporary solution

Until the above firmware becomes available, work around the problem by doing the flowchart on the next page.





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Model: Andromed	Date: 14-Feb-19		No.: RM0B1078		
Subject: Change in ACS default value / Correction to TCRU/ORU Troubleshooting manual correction					by: H. Matsui
From: Sales Strate	gy Section, 1st CP Busines	ss Dep.			
Classification:	ification: Image: Troubleshooting Image: Part information Image: Mechanical Image: Paper path Image: Electrical Image: Paper path Image: Transmit/receive Image: Product Safety Image: Other (Control of the state)			Action re Service r Retrofit in Tier 2	quired nanual revision nformation X Tier 0.5

SYMPTOM

Compared to the predecessor model Andromeda-P1, productivity degrades in jobs that contain both FC (full color) pages and BW (black/white) pages.

CAUSE

The default setting of **0401**: [No. of Sheets for Auto Color Selection] in the Adjustment Settings for Operators is set to '5' while it was '0' (disabled) on the predecessor model.

With the Auto Color Selection (ACS) function enabled, printing switches between FC and BW modes and causes delay.

NOTE: The default value of the ACS setting is however described as "0" in the *Pro C9200/C9210 Operating Instructions Adjustment Item Menu Guide: TCRU/ORU* manual.

SOLUTION

The ACS setting was corrected. See cut-in S/N of the Imaging Section below. For machines before the cut-in S/N, set **0401** to '0.'

Also, the following section of the *Pro C9200/9210 Operating Instructions Troubleshooting: TCRU/ORU* manual was replaced with the descriptions on the following pages.

10. Improving Throughput > Improving Throughput when Continuously Performing Black and White and Color Printing (p.177)

NOTE

- Setting 0401 to '0' will shorten the life of the drums and toner, because black/white pages will be printed in FC mode.
- This setting corresponds to SP2-907-001 (ACS Switch Set: FC to BW).

Model Code	Region	Cut-in S/N	Model Code	Region	Cut-in S/N
M0B117	NA	5018FC10001	M0B217	NA	5028FB10019
M0B126	EU	5018FB30017	M0B226	EU	5028FB30016
M0B128	AP	5018FB50006	M0B228	AP	5028FC50001

Cut-in S/N of the Imaging Section

Model: Andromeda-P2	Date: 14-Feb-19	No.: RM0B1078
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Requested Action

Please explain the above to your customers and provide them with assistance in finding the best setting according to their preferences by referring to the revised description below.

How to Improve Productivity for Jobs Mixed with FC and B&W Pages

Printing is available in BW mode for black/white pages and FC mode for full color pages. When a job consists of both black/white and full color pages, productivity decreases due to the time needed to switch between the modes.

This loss in productivity can be compensated by specifying the number of black/white pages to be printed in FC mode before switching from FC mode to BW mode within the job. This value can be specified in **0401: [No. of Sheets for Auto Color Selection]** of the Adjustment Settings for Operators menu.

The table below describes the print behavior depending on this setting.

Value	Behavior
0	Prints the entire job in FC mode.
(Default) Disabled	NOTE: Maintains high productivity but shortens the life of the drum and toner.
1 (Minimum)	Switches from FC mode to BW mode from the 1st black/white page. Productivity decreases, but Cyan/Magenta/Yellow stations are inactive while printing in BW mode.
10 (Maximum)	Switches from FC mode to BW mode from the 10th black/white page. If there is less than 10 black/white pages in succession, printing remains in FC mode, thus maintains high productivity.

NOTE

- Printing black/white pages in FC mode keeps the Cyan/Magenta/Yellow development units activated and affects the yield of the PCDU (photoconductor and development unit), toner and waste toner bottle.
- If a full color page follows black/white page(s), printing will always switch to FC mode because full color pages cannot be printed in BW mode.

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Model: Andromeda-P2 Date: 14-Feb-19 No.: RM0B1078

Example 1 [Page 1: Full color, Pages 2~5: Black/white]

- Setting the ACS value to '1' will switch the print mode from FC to BW on the 2nd page. Setting the value to 2~4 will result in the same behavior, but in this case, it is recommended to set the value to '1' to avoid activating the unneeded development units of the color stations.
- Setting the ACS value to '0' or '5+' will further improve productivity but will affect the yield of the PCDU and toner.

	Page 1	Page 2	Page 3	Page 4	Page 5
	there are a first and the second seco				
ACS = 0	FC	FC	FC	FC	FC
ACS = 1	FC	BW	BW	BW	BW
ACS = 2	FC	FC	BW	BW	BW
ACS = 3	FC	FC	FC	BW	BW
ACS = 4	FC	FC	FC	FC	BW
ACS = 5	FC	FC	FC	FC	FC
\smile			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~)
ACS setting			Print mode		

Example 2 [Pages 1 and 4: Full color, Pages 2, 3 and 5: Black/white]

- Setting the ACS value to '1' will switch the print mode from FC to BW on the 2nd, 4th, and 5th pages. Productivity decreases significantly.
- Setting the ACS value to '0' or '3+' will prevent the print mode from switching. Maintains high productivity.

	Page 1	Page 2	Page 3	Page 4	Page 5	
	FC men 1000			FC Meret		
ACS = 0	FC	FC	FC	FC	FC	
ACS = 1	FC	BW	BW	FC	BW	
ACS = 2	FC	FC	BW	FC	FC	
ACS = 3	FC	FC	FC	FC	FC	
\smile	\Box)	
ACS setting		Print mode				

PAGE: 1/3

Model: Andromed	la-P2		Date	e: 22-Feb-1	19	No.: RM0B1079
Subject: Problems	s caused by clogged waste ton	er path		Prepared	d by: J. (Ohno
From: Sales Strate	gy Section, 1st CP Business D	ep.				
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part in Electric Transr Other	forma cal nit/rec (tion eive)	Actio	n required ice manual revision ofit information 2

SYMPTOM

- 'Toner end' is detected even when the toner bottle is not empty.
- Faint image
- SC348 (toner supply error)
- SC361 (TD sensor output error: upper limit)
- SC374 (ID sensor pattern density low error)

CAUSE

Adjustment Settings for Operators **0501-01** [Execute Cleaning Initial Setting for PCU: KCMY] or **SP3-032-001** (Cleaning Setup: Exe: Execute: All) is performed too frequently. This causes the M and/or Y developer to clog at the exit of the development unit leading to the waste toner path.

SOLUTION

System f/w was modified to eliminate the above setting that cleans the PCU of all KCMY stations together.

With **System f/w ver. 1.09 or later**, it is requested to perform PCU cleaning separately for CMY and Black as described below to prevent clogging of the waste toner path.

Adjustment Settings for Operators:

- 1. Do 0501-02 [Execute Cleaning Initial Setting for PCU: CMY].
- 2. Do 0501-03 [Execute Cleaning Initial Setting for PCU: Black].
- 3. Do 0201-02 [Execute Image Quality Adjustment: Adjust Image Density].

SP mode:

- 1. Do SP3-032-002 (Cleaning Setup: Exe: Execute: Col).
- 2. Do SP3-032-003 (Cleaning Setup: Exe: Execute: K).
- 3. Do SP3-011-002 (Manual ProCon: Exe: Density Adjustment).
- > For the procedure on how to clean clogged waste toner path, see following pages.

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Model: Andromeda-P2

Date: 22-Feb-19

No.: RM0B1079

How to clean the clogged waste toner path

- 1. Slowly and gently remove the M and Y development units.
- 2. Vacuum the entrance of the development unit, if clogged as in below.



3. Place a sheet of paper on the ITB and vacuum the entrance of the waste toner path.



4. Tap around the exit of the development unit with the handle of a screwdriver.



5. Vacuum for about 10 seconds to remove loose developer from the aperture.



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- 6. Put back the development unit and turn On the machine power with the door open.
- To reduce the amount of developer in the M and Y development units, attach the developer bottle (covered with a plastic bag to make sure developer does not spill) and do the following SPs for 20 seconds respectively: SP5-804-087 (Output Check: Development Motor: M) and -088(Y).



- 8. To reduce the amount of developer in the sub hopper, do the following SPs three times respectively: **SP3-050-005** (Force Toner Supply: Exe: M) and **-006**(Y).
- 9. Replace the M and Y developer.

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Model: Androme	eda-P2		Date: 4-Ma	ar-19	No.: RM0B1080
Subject: Revised r	nachine leveling procedure			Prepared	by: Hiroaki Matsui
From: Sales Strate	gy Section, 1st CP Busines	s Dep.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform	nation eceive)	Action re Service r Retrofit ir Tier 2	quired nanual revision nformation Tier 0.5

SYMPTOM

The following problems occur because the machine is not level.

- The PTB runs off track and is eventually damaged.
- The ITB runs off track and causes the following SC:
 - SC471-00 (Belt position ready timeout)
 - > SC474-02 (ITB position error 2): front side overrun
 - > SC474-03 (ITB position error 3): rear side overrun

CAUSE

The leveling procedure described in the Installation section of the FSM is incomplete.

In detail

The FSM only documents the leveling procedure as part of the installation procedure for the main units; the Imaging section and Fusing section. However, connecting optional peripherals after leveling the main units affects the leveling of the main units. Therefore, the main units must always be leveled whenever optional peripherals are connected or disconnected, but the FSM is missing of this instruction.

• The machines can become very unlevel especially if the level of an optional peripheral was changed after it was docked to the Imaging section. Note that the machine is considerably unlevel, if the leveling bolt of the Imaging section is floating from its shoe.

SOLUTION

Do the below after docking all the machines (Imaging section, Fusing section and optional peripherals) with screws and leveling.

- 1. Verify that every machine is level.
- 2. Verify that all leveling bolts of the Imaging section, Fusing section and optional peripherals set firmly on the leveling shoes.

Repeat the leveling procedure if '1' and '2' above are not met. If there is a leveling bolt floating from its shoe, do the below.

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3. Turn the bolt until it contacts the shoe, and further extend the bolt by making an extra half rotation so that the shoe sets firm against the floor.

* Touch the leveling shoe to check if it is in contact with the bolt.



See flowcharts below for the complete leveling procedure. New explanations are in red.





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Model: Andromed	a-P2		Date: 5-Ma	ar-19	No.: RM0B1081
Subject: Frequent SP3-032-001 (Cleaning Setup:Exe/Execute: ALL) Prepared by: Hiroa execution reduces Cyan output density				by: Hiroaki Matsui	
From: Sales Strate	gy Section, 1st CP Busines	s Dep.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform Electrical Transmit/re Other (nation eceive)	Action re Service n Retrofit ir Tier 2	quired nanual revision nformation

SYMPTOM

The output density of Cyan to decreases if the PCDU of all stations are refreshed together (with SP 3-032-001: Cleaning Setup: Exe/Execute: ALL or [0501-1: Execute Cleaning Initial Setting for PCU: KCMY] of Adjustment Settings for Operators).

CAUSE

The problem occurs in the following sequence:

- a) Refreshing the PCDU of all stations together causes waste toner exhausted from two stations; BK and Cyan, to flow immediately under the exit to the waste toner path of the C development unit.
- b) The amount of waste toner exceeds the capacity of the waste toner transport path and clogs the exit to the waste toner path of the Cyan development unit.
- c) The amount of developer in the Cyan development increases.
- d) Toner clogs the entrance to the Cyan development unit from the sub hopper.
- e) Toner cannot be supplied to the Cyan development unit and the toner density in the unit decreases.
- f) Output density of Cyan decreases.

SOLUTION

Update the firmware below together as a set to the versions described.

- > Engine Ver.1.60:12 (M0B15160M) or newer
- > System Ver.1.10 (M0B16021P) or newer

The following changes take effect after the above update:

- SP 3-032-001 (Cleaning Setup: Exe/Execute: ALL) disappears from the SP.
- 0501-01 [Execute Cleaning Initial Setting for PCU] disappears from the Adjustment Settings for Operators menu.

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Model: Andromed	odel: Andromeda-P2 Date: 7			-Mar-19	No.: RM0B1082
Subject: How to re	eplace Registration Unit procu	ired as a serv	rice part	Prepared by:	: Hiroaki H Matsui
From: Sales Strate	gy Section, 1st CP Business	Dep.			
Classification:	Troubleshooting	Part info	ormation	☐ Action ⊠ Servic	required e manual revision
	Paper path	☐ Transmi ☐ Other (t/receive)	☐ Retrof ⊠ Tier 2	it information

Service Manual Revision

This bulletin provides the procedure for replacing the Registration Unit procured as a service part and the adjustments required after the replacement.

Flowchart



Model: Andromeda-P2	Date: 7-Mar-19	No.: RM0B1082
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Procedure #1: Replacing the registration unit

1. Remove the PTR unit from the Registration Unit.

See FSM: 4. Replacement and Adjustment > Paper Transfer Unit (PTR)

NOTE: The PTR Unit will be reused.

2. Remove the Registration Unit from the Imaging section.

See FSM: 4. Replacement and Adjustment > Registration Unit (Drawer Unit) > Drawer Unit.

IMPORTANT

- The registration unit is heavy and requires at least two people for removal. Work with extra care when removing and reinstalling the registration unit.
- Do not leave the registration unit pulled out on its rails for more than 10 hours, or the components will deform and cause problems such as variation in the PTR pressure.
- 3. Install the Registration Unit procured as a service part.

See FSM: 4. Replacement and Adjustment > Registration Unit (Drawer Unit) > Drawer Unit > Reinstalling the Drawer Unit.

4. Reinstall the PTR Unit that was removed from the old Registration Unit in step 1, onto the new Registration Unit.

See FSM and follow the steps in reverse order: > 4. Replacement and Adjustment > Paper Transfer Unit (PTR)

IMPORTANT

Before reinstalling the PTR Unit, use both hands and press the two levers [A] together a few times to let the Paper Transfer Cleaning Blade #1 separate from and contact with the Paper Transfer Belt. This will help prevent the blade from curling.



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Do the same for Paper Transfer Cleaning Blade #2 using levers [B].



Procedure #2: Regaining tension for the PTR drive timing belt

After replacing with the new Registration Unit, adjust the PTR drive timing belt tension.

See FSM: 4. Replacement and Adjustment > Paper Transfer Unit (PTR) > PTR Drive Timing Belt > Regaining tension for the PTR drive timing belt

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Procedure #3: Entering the characteristics value of the ID/MUSIC Sensor

Because each ID/MUSIC sensor has different characteristic values, you must enter the values unique to the ID/MUSIC sensor mounted on the new Registration Unit in the SP mode.

ADDITIONAL INFORMATION to the current FSM

Data sheet of the ID/MUSIC sensor is included as an accessory to the Registration Unit procured as a service part.



ID/MUSIC sensor characteristic values are described in the table on the data sheet for Front, Rear, Y, M, C and K.

See FSM: 4. Replacement and Adjustment > Paper transfer Unit (PTR) > ID/MUSIC Sensors to enter the characteristic values.

Then, execute Process Control.



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Procedure #4: Optical axis correction PTR timing sensor

Correct the optical axis of the PTR timing sensor by referring to the flowchart below.



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Procedure #5: CIS adjustment

1. Do the CIS adjustment by referring to the following section of the FSM.

4. Replacement and Adjustment > Registration Unit (Drawer Unit) > CIS1/CIS2/CIS3 > Shading/Skew Adjustment after the CIS Replacement

2. In addition to the above procedure, add '190' to the current SP1-078-001~003 settings.

<u>e</u> p	Description	Value to	Exai	nple
Jr	Description	add	Current value	After the addition
SP1-078-001	CIS Ref PositionMeasured Value/CIS1	+190	289	479
SP1-078-002	CIS Ref PositionMeasured Value/CIS2	+190	270	460
SP1-078-003	CIS Ref PositionMeasured Value/CIS3	+190	371	561

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Procedure #6: Image Position Adjustment





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Trailing Edge Skew Adjustment

See FSM: 4. Replacement and Adjustment > Image Adjustment > Adjustment Related to Transport Precision > Paper Transfer Unit (PTR) Angle Correction (Trailing Edge Skew Adjustment)

> Tolerance = 0.2mm/400mm

Paper Skew Adjustment

See FSM: 4. Replacement and Adjustment > Image Adjustment >Image Position Adjustment Using IMSS and Adjustment Setting for Operators > Adjusting the Image Position on Side1 > (a) Adjust the paper skew

NOTE: Front and back sides are adjusted together.

Tolerance = 0.2mm / 400mm

Perpendicularity Adjustment

See FSM: 4. Replacement and Adjustment>Image Adjustment>Image Position Adjustment Using IMSS and Adjustment Setting for Operators>Adjusting the Image Position on Side1>(b) Adjust the image skew

Reference for adjustment:

For sizes that have a width ranging 297mm ~ 330.2mm, the target point shifts approximately 0.3mm towards the [+] direction when input [+10], and approximately 0.3mm towards the [-] direction when input [-10].

Tolerance = 0.15mm / 280mm

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Image Registration Adjustment

1. On the operation panel, press:

[Tray Paper Settings] (and select the Paper Name/Paper Type) \rightarrow [Advanced Setting...] \rightarrow [11: Machine Image Position].

2. Reset the following settings to [0] (default):

1101-01: Image Position > Image Position Result: Side 1 > 01: Across Feed 1101-02: Image Position > Image Position Result: Side 1 > 02: With Feed 1101-03: Image Position > Image Position Result: Side 2 > 01: Across Feed 1101-04: Image Position > Image Position Result: Side 2 > 02: With Feed

- 3. Press [Edit Settings...] \rightarrow [Advanced Setting].
- 4. Press [Auto Adjust Image Position] → [Test Print (Front & Back)] to print the test charts, and then, make measurements A [mm] and B [mm].



5. Calculate the adjustment values "L" and "W" using the formula below.

Adjustment value for sub scan direction: **L** = **10 - A [mm]** Add the value "L" to the current SP settings below.

- SP1-501-001 (Lead Edge Reg Standard Value/Front Side)
- SP1-501-002 (Lead Edge Reg Standard Value/Back Side)

Adjustment value for main scan direction: **W** = 10 - **B** [mm] Add the value "W" to the current SP settings below.

- SP1-502-001 (Side-to-SideReg StandardValue/Front Side)
- SP1-502-002 (Side-to-SideReg StandardValue/Back Side)
 - > Tolerance of L and W = \pm 0.5mm

RICOH Techr

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Model: Andromed	Nodel: Andromeda-P2 Date:		Date: 11-M	1ar-19	No.: RM0B1083
Subject: FSM correction - SP description in Developer replacement procedure		Prepared by: J. Ohno			
From: Sales Strategy Section, 1st CP Business Dep.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part inform Electrical Transmit/re Other (nation eceive)	Action re Service n Retrofit ir Tier 2	quired nanual revision nformation Tier 0.5

Please correct the description of SP3-028-001~006 and SP3- 029-001 in the following section of the FSM:

4. Replacement and Adjustment > Around the Drum > Developer Replacement > Draining Developer

Incorrect

Draining Developer

 Enter the SP mode, and then execute SP3-028-001 to 006 (TC Down Bf Developer Emit: Exe) depending on which development unit to you wish to remove the developer from.

SP No.	Color
SP3-028-001	K/C/M/Y
(TC Down Bf Developer Emit: Exe: All Colors)	
SP3-028-002	C/M/Y
(TC Down Bf Developer Emit: Exe: Colors)	
SP3-028-003	К
(TC Down Bf Developer Emit: Exe: K)	
SP3-028-004	С
(TC Down Bf Developer Emit: Exe: C)	
SP3-028-005	М
(TC Down Bf Developer Emit: Exe: M)	
SP3-028-006	Y
(TC Down Bf Developer Emit: Exe: Y)	

2. Check that the result code displayed in SP3-029-001 (TC Down Bf Dev Emit: Result) is "1".


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Correct

Draining Developer

 Enter the SP mode and execute SP3-028-001 ~ 006 (Initial TC Adj: Execute) for the development unit you wish to remove the developer from.

SP No.	Color
SP3-028-001	K/C/M/Y
(Initial TC Adj: Execute: All)	
SP3-028-002	C/M/Y
(Initial TC Adj: Execute: Colors)	
SP3-028-003	К
(Initial TC Adj: Execute: K)	
SP3-028-004	C
(Initial TC Adj: Execute: C)	
SP3-028-005	М
(Initial TC Adj: Execute: M)	
SP3-028-006	Y
(Initial TC Adj: Execute: Y)	

<u>2.</u> Verify that the result code displayed in SP3- 029-001 (Initial TC Adj: Result (YMCK)) is "1".

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Model: Andromeda-P2		Date: 29-Mar-19		No.: RM0B1084	
Subject: For easier reinstallion of the Heating Roller Lamps			Prepared	by: Hiroaki Matsui	
From: Sales Strategy Section, 1st CP Business Dep.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receive Other () 		Action re	quired nanual revision nformation Tier 0.5

Service Manual Revision

This bulletin supplements the procedure for reinstalling the heating roller lamps in the following section of the FSM, to make the process easier:

4.Replacement and Adjustment > Fuser Unit > Fuser Belt Unit > Installing the Heating Roller Lamps

Heating roller lamps replacement procedure

1. Insert the heater lamps (x5) through the heating roller. At the rear, align the lamps along the bottom of the journal.



Heating roller journal

(View from rear)

NOTE: As described in the FSM, use the heater tube to insert the heater lamps.



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2. At the rear, fit the harnesses into the cutouts on the heater holder as you set the heater holder. Look at the numbers engraved on the holder and fit the harnesses in the order $2 \rightarrow 1 \rightarrow 5 \rightarrow 4 \rightarrow 3$. (Photo shows the harnesses fit to cutouts $2 \rightarrow 1$.)

NOTE: Do not fix the holder with screw yet.



3. Set the insulators on the cutouts on the holder.



Insulator



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4. Attach the heater holder with the screw, but do not completely fasten the screw yet. Leave a 2~4 mm gap in between the holder and the base plate of the fusing unit.





NOTE: By leaving the screw unfixed the heater lamps can maintain level between the front and rear holders. Fixing the screw when the lamps are unlevel will break the lamps.



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- At the front, align the lamps along the bottom of the heating roller journal as done for 5. the rear in the first step. NOTE
 - Make sure you can see through the hole for the dummy lamp. •
 - The 5 lamps should be lined straight without crossing. •



6. Hold the end of the dummy lamp attached with the cap and insert the lamp from the front through the center of the heating roller so that the end without the cap faces the rear.



NOTE: The dummy lamp must be installed in the correct orientation.

Rear

Front



No cap around the insulator



Cap around the insulator

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7. From the front, look through the hole as you insert the dummy lamp all the way in.



View from front

8. Verify that the insulator of the dummy lamp is fitting in the hole in the middle of the rear holder.



 At the front, set heater lamp #3 by matching it with the cutout engraved with number '3.' Do not tilt the holder as you continue with the next step.



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10. At the front, set the harnesses to the cutouts on the heater holder in the following order by referring to the numbers engraved on the holder: $3 \rightarrow 2 \rightarrow 1 \rightarrow 5 \rightarrow 4$.



Do not tilt the holder.



The photo below shows the numbers engraved on the front and rear holders.



11. At the front, set the insulators on the cutouts on the holder.





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12. Hook the holder to the hole on the bracket.



13. Using your right hand, carefully push the heater assembly toward the rear so that the insulators do not fall out from the cutouts on the holder.





Verify that the insulators are set to the cutouts on the rear. If not, correct.

14. At the front, gradually press in the heater assembly to the rear.





15. At the front, match the two holes on the holder with the bosses on the bracket.



16. At the front, fasten the screw to fix the holder.



17. At the rear, completely fasten the screw that was fastened halfway in Step 4.



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Model: Andromeda-P2			Date: 11-Apr-19		No.: RM0B1085
Subject: Added info on troubleshooting wrinkles for thin paper			Prepared by: J. Ohno		
From: Sales Strategy Section, 1st CP Business Dep.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receive Other () 		 ☐ Action re ☐ Service r ☐ Retrofit in ☑ Tier 2 	quired nanual revision nformation Tier 0.5

SYMPTOM

Wrinkles appear when printed on thin paper.

CAUSE

The fusing nip crumples the paper.

In addition, risk of wrinkles increases when the paper is fed along the grain direction.



SOLUTION

• Do the troubleshooting instructions described in the following section of the FSM:

6. Troubleshooting > Image Quality > Image Quality 004: Unevenness > Wrinkles, worm tracks, creasing (page.2378)

- **NOTE:** Reducing the nip width and fusing temperature affects the fusing capability. Make sure to check the image quality as you adjust these settings.
- If the above does not work and the paper is fed along the grain direction, change the orientation or the paper stock so that the grain direction is across the feed direction.





Technical Bulletin

Reissued: 13-May-19

Model: Andromeda-P2

Date: 24-Apr-19

No.: RM0B1086a

RTB Reissue

The items in	n bold	italics	were	corrected	or a	added.
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Subject: Summary	of the functions and F/W o	Prepared by: Hiroaki Matsui		
From: Service Plar				
Classification:	Troubleshooting Part information Mechanical Electrical Paper path Transmit/receive Product Safety Other ()		 Action required Service manual revision Retrofit information Tier 2 Tier 0.5 	

Service Manual Revision

Please add the following information to your FSM, in section:

4. Replacement and Adjustment > Auto Color Diagnosis Unit > Firmware Update

Location	РСВ	Function	Corresponding F/W or Parameter file
ACD Unit	Motherboard	 Manages the overall control of the ACD system. Runs some of the image processing. 	 > OS (Linux) > ACD Unit System (F/W) > ACD Unit Param (F/W) > FRC Parameter (Parameter file)
	VMCU ≻ Runs th process digital R using R data fro ACD pro		 ACD Unit M-FPGA (F/W) ACD Unit M-Ri (F/W)
	VICU	Compares the digital RGB master data against the RGB scanned data from TIM- RED to detect the color shifts.	 ACD Unit I-FPGA (F/W) ACD Unit I-Ri (F/W)
Controller box at the rear of the Mainframe Imaging Section	VIF	Relays the RIPped CMYK data from the DTU board to the ACD unit.	Program is burned on the ROM on the PCB. (Non-rewritable) ➤ VIF FPGA Config Data See RTB #RM0B1055a for detail.

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Model: Andromeda-P2			Date: 25-Apr-19		No.: RM0B1087
Subject: Troubleshooting Jam80/97 that occur with thin paper stocks			Prepared	by: M. Okamoto	
From: Service Planning Sect., Global Engineering Support Dept.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receive Other () 		Action re Service r Retrofit in Tier 2	quired nanual revision nformation Tier 0.5

SYMPTOM

The following jams occur when printed on thin paper stocks:

- Jam 80 (sub scan registration adjustment error)
- Jam 97 (over skew)

CAUSE

The top of the paper stack is too far from the feed belt, causing the sheets to skew when sucked against the feed belt.

- In detail -

While the upper limit sensor detects the top most sheet to raise the tray to the optimal height for feeding, the tray may not rise enough with thin paper stocks. This is because the sheets tend to flutter by the air blown from the float/side fans, causing the upper limit sensor to detect the sheet and stop tray ascension too early.



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SOLUTION

Step 1

- Fan the paper, and then load the paper on the tray flush against the side fence; no space between the stack and fence.
- If the problem does not resolve, do Step 2.

Step 2

• Attach the support fence to prevent the sheets from fluttering.

Use the large fence for 297mm or larger sizes. Use the small fence for sizes smaller than 297mm.

• If the problem does not resolve or your customer disagrees to use the support fence, do Step 3.





Small Support Fence



Step 3

- Set Advanced Settings **#1301** [Main/2-Tray LCIT: Paper Feed Mode] to '**1**: Prevent Double Feed (Weaker Blow).'
- If the problem still does not resolve, set Advanced Settings **#1301** to '**0**: Prevent Double Feed (Weakest Blow).'

NOTE: Non-feeds may occur as a side effect of decreasing the fan level.

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Model: Andromeda-P2			Date: 26-Apr-19		No.: RM0B1088		
Subject: Troubleshooting Jam80/97 at new installation					Prepared by: J. Ohno		
From: Service Planning Sect., Global Engineering Support							
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receive Other () 		 ☐ Action re ☐ Service n ☐ Retrofit in ☑ Tier 2 	quired nanual revision nformation Tier 0.5		

Problem

J080 / J097 caused by paper skew

Solution

Correct the skew with the following procedure.

- **Part 1:** Mainframe Installation / Leveling ~ Registration check using the Grid pattern Steps 1-1 ~ 1-7
- Part 2: Mainframe tray adjustment

Steps 2-1 ~ 2-4

Part 3: Vacuum Feed LCIT Installation / Leveling ~ Registration check using the Grid pattern ~ Tray adjustment Steps 3-1 ~ 3-6

Part 4: For additional Vacuum Feed LCIT installed in tandem Steps 4-1 ~ 4-7

Part 1: Mainframe Installation / Leveling ~ Registration check using the Grid pattern

- 1-1. Install the mainframe and do the leveling procedure according to the FSM. See also bulletin #RM0B1080.
- 1-2. Create a new custom media entry.



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1-3. Set Advanced Settings **#1321-02** to **Off**, to check the registration accuracy of the machine without the skew and side-to-side corrections.

Custom Paper Management					
Advanced Settings		Select the ite settings.	m in the left area to check and cha	nge the advanced	✓ Save
0:0001 Paper Name:Arjowiggin	s cocoon silk (135gsm)	-		Reg Align Frt&Bck	Img Use Template
► 11 Machine: Image Position			Turn on/off detect function f /JO97(skew)/JO98(gap: acro	or the following jam. JOB ss)/JO99(double feed) Co	Digap: feed) rrection
▶ 12 Machine: Image Quality			for image position gap with a	cross & skew are also tur	ned on/off.
# 13 Machine: Paper Feed / Output	t		01 : Detect JAM099		: Default *
► 1501 Main/2-Tray LCIT: Paper Fe	ed Mode	-	Off	On	*
A HOLDING THE FORT		-	Off	o 0n	*
 BOZ Main/2-Tray bCTI: Nat/Shu 	ue	_	05 : Detect JAM080		: Default *
1303 Main/2-Tray LCIT: Other Set	tting	1	Off	On	*
► 1311 Correct Paper Curl		1			
▼ 1521 Jam Detection					
▼ JAM080/097/098/099	(01-)			
01 : Detect JAM099	On				
02 : Detect/Ctrl JAM097/098	on				
03 : Detect JAM080	On				

- 1-4. Assign the media to a tray.
- 1-5. Load the media on the tray and make sure the side fence is straight, not tilted.
- 1-6. Print out 20 copies of a grid pattern in simplex (from the engine or the Fiery).



1-7. Select a few sheets from the 5th~10th sheets (because the print quality may not be stable in the first and last page) and measure the skew.



Skew = (A - B)/200mm

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Part 2: Mainframe tray adjustment

2-1. Loosen the two screws at the top of the tray, and then loosen the screw [A] to the left-hand side.





2-2. Change the screw position at all four locations depending on the skew measured in step 7.





Shown below is an example of the screw positions to correct a '+0.3mm' skew.



- 2-3. Repeat steps 1-6 and 1-7 and verify that the skew is 0mm/200mm. If there is still skew, change the screw position again as done in step 2-2.
- 2-4. Set Advanced Settings **#1321-02** to **On**.

- **Part 3:** Vacuum Feed LCIT Installation / Leveling ~ Registration check using the Grid pattern ~ Tray adjustment
- 3-1. Install the Vacuum Feed LCIT and do the leveling procedure according to the FSM. See also bulletin #RM0B1080.
- 3-2. Do steps 1-2 ~ 1-7 for Tray 3 of the LCIT to verify the skew.

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3-3. Remove the skew correction plate(s) [C] from the bottom left stay and insert the plate(s) between the connection pin [A] and bracket [B]. See next page for detail.

NOTE: If the LCIT has been raised for leveling with the mainframe, lower it before inserting the correction plate(s).



NOTE

- The thickness of the skew correction plate is 0.5mm. One plate allows correction of a 0.5mm/200mm skew. Maximum 2mm/200mm skew can be corrected using four plates.
- Total of 8 plates are included as accessory to the Vacuum Feed LCIT.



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If the skew is directed towards the operator side, insert the correction plate at the non-operator side.



If the skew is directed towards the non-operator side, insert the correction plate at the operator side.



- 3-4. Level the Vacuum Feed LCIT with the mainframe and repeat steps 1-6 and 1-7.
- 3-5. Verify that the skew is 0mm/200mm and set Advanced Settings #1321-02 to On. If there is still skew, repeat step 3-3. If four plates are not enough to correct the skew, repeat Part 2.
- 3-6. For Tray 4, do steps $1-2 \sim 1-7$ and Part 2.

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Part 4: For additional Vacuum Feed LCIT installed in tandem

- 4-1. Install the additional Vacuum Feed LCIT with the Bridge Unit and do the leveling procedure according to the FSM. See also bulletin #RM0B1080.
- 4-2. Do steps 1-2 ~ 1-7 for Tray 5 of the LCIT to verify the skew.
- 4-3. Remove the skew correction plate(s) from the bottom left stay and insert the plate(s) between the connection pin and bracket.
 - NOTE: If the LCIT and Bridge Unit have been raised for leveling with the mainframe, lower both devices before inserting the correction plate(s).

If the skew is directed towards the operator side, insert the correction plate at the non-operator side.



If the skew is directed towards the non-operator side, insert the correction plate at the operator side.





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- 4-4. Level the Vacuum Feed LCIT and Bridge Unit with the mainframe and repeat steps 1-6 and 1-7.
- 4-5. Verify that the skew is 0mm/200mm and set Advanced Settings #1321-02 to On. If there is still skew, repeat step 4-3. If four plates are not enough to correct the skew, repeat Part 2.
- 4-6. For Tray 6, do steps $1-2 \sim 1-7$ and Part 2.

If there is a third Vacuum Feed LCIT connected in tandem, repeat Part 4 for Tray 7 & 8.

4-7. After correcting the skew for all the trays, verify that the entire system is level.

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Model: Andromeda-P2				un-18	No.: RM0B1089
Subject: Revised troubleshooting procedure for 'Horizontal glossy streaks in solid areas'					by: Masami Okamoto
From: Service Planning Sect., Global Engineering Support Dept.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (nation eceive)	 Action re Service n Retrofit in Tier 2 	quired nanual revision nformation Tier 0.5

SYMPTOM

Horizontal gloss streaks do not disappear even after doing the troubleshooting procedure 'Horizontal glossy streaks in solid areas' described in the FSM.

CAUSE

The scratches on the fusing belt is too deep. This may occur with certain paper stocks that have rigid burrs on the paper edges.

SOLUTION

The troubleshooting procedure 'Horizontal glossy streaks in solid areas' was revised. In the revised procedure, the belt smoothing operation is run immediately after the job.

<Revised procedure>

1. In Adjustment Settings for Operators [0512-01: Fusing Belt Smoothing Setting: Automatic Execution], select **Automatic Execution: Set by User**. (See NOTE below.)

Set the values as in below.

• In Adjustment Settings for Operators [0515-01: Fusing Belt Smoothing Setting (Set by User): No. of Sheets per Interval], set to 100 pages.

If the gloss streaks still do not disappear, set to **50** pages. If 50 pages does not solve the problem, set to **10** pages.

• In Adjustment Settings for Operators [0515-02: Fusing Belt Smoothing Setting (Set by User): Execution time], set to 150 seconds.

If this is not enough, increase the duration by adding **60** seconds at a time.

- 2. Feed at least 100 pages of the paper that causes scratches on the fusing belt.
- In Adjustment Settings for Operators [0513-01: Smooth Fusing Belt: Belt Scratches], press Execute. Repeat once or twice until the gloss streaks disappear to an acceptable level.
- **NOTE:** Increasing the belt smoothing operation time will shorten the life of the belt smoothing roller.

Technical Bulletin

PAGE: 1/2

Model: Andromeda-P2 Date: 12-Ju				un-19	No.: RM0B1090
Subject: Revised troubleshooting procedure for 'Glossy streaks caused by a scratched fusing belt 2'			Prepared	by: Masami Okamoto	
From: Service Planning Sect., Global Engineering Support Dept.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (nation eceive)	 Action re Service n Retrofit in Tier 2 	quired nanual revision nformation Tier 0.5

SYMPTOM

Gloss streaks do not disappear even after doing the troubleshooting procedure 'Glossy streaks caused by a scratched fusing belt 2' described in the FSM.

CAUSE

The scratches on the fusing belt is too deep. This may occur with certain paper stocks that have rigid burrs on the paper edges.

SOLUTION

The troubleshooting procedure 'Glossy streaks caused by a scratched fusing belt 2' was revised as follows. In the revised procedure, the belt smoothing operation is run immediately after the job.

<Revised procedure>

- In Advanced Settings [1246-01: Fusing Nip Width: Leading Edge], select 2. (NOTE *1)
- 2. In Adjustment Settings for Operators [**0512-01**: Fusing Belt Smoothing Setting: Automatic Execution], select **Most Frequently**. (NOTE *2, *3)
- 3. Feed at least 150 sheets of the paper that causes scratches on the fusing belt.
- 4. In Adjustment Settings for Operators [0513-01: Smooth Fusing Belt: Belt Scratches], press **Execute**. Repeat until the gloss streaks disappear to an acceptable level. (It should take about 8 or 9 times.)

Continue with the procedure, if the streaks have not disappeared.

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5. In Adjustment Settings for Operators [0512-01: Fusing Belt Smoothing Setting: Automatic Execution], select Automatic Execution: Set by User. (NOTE *2, *3)

Set the values as in below.

 In Adjustment Settings for Operators [0515-01: Fusing Belt Smoothing Setting (Set by User): No. of Sheets per Interval], set to 100 pages.

If the gloss streaks still do not disappear, set to **50** pages.

If 50 pages does not solve the problem, set to **10** pages.

• In Adjustment Settings for Operators [0515-02: Fusing Belt Smoothing Setting (Set by User): Execution time], set to 150 seconds.

If this is not enough, increase the duration by adding **60** seconds at a time.

- 6. Feed at least 100 pages of the paper that causes scratches on the fusing belt.
- 7. Repeat step 4.

If the problem persists, advise your customer to use one fusing unit exclusively for jobs run on the paper size that causes the belt scratches and another unit for other sizes.

NOTE

- *1: Decreasing the fusing nip width degrades fusibility. Make sure to check the fusibility as you adjust the nip width.
- *2: Selecting **Most Frequently** in [**0512-01**: Fusing Belt Smoothing Setting: Automatic Execution] may shorten the life of the belt smoothing roller to 1/8 of the prescribed PM cycle at the worst.
- *3: Because the setting made in [0512-01] applies to all jobs, it is recommended to switch the setting back to **Automatic Execution** for jobs run on sizes that do not cause the belt scratches.

Technical Bulletin

Model: Andromeda-P2			Date: 21-Jun-19		No.: RM0B1091
Subject: Troubleshooting error code '9' when replacing developer				Prepared	by: J. Ohno
From: Service Planning Sect., Global Engineering Support					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part information Electrical Transmit/receive Other ()		Action re Service r Retrofit ir Tier 2	quired nanual revision nformation Tier 0.5

SYMPTOM

When SP3-028-001~006 (Initial TC Adj) is executed to initialize the toner density level before replacing the developer, the execution results in an error and the result code shows '9' even when the procedure was carried out correctly.

Code	Meaning	Conditions	Recovery Procedure
0	No execution	-	-
1	Succeeded	Succeeded	-
2	Waste toner bottle full	The waste toner bottle became full during operation.	 Replace the waste toner bottle. Execute SP3-028-001 to 006 (TC Down Bf Developer Emit: Exe).
3	Time-out	TC down was not executed completely even after the machine repeated the upper limit number of operation.	1. Execute SP3-028-001 to 006 (TC Down Bf Developer Emit: Exe).
9	Forced abort	TC down was forced to abort due to door open, power off, or other errors.	 Clear the error. Execute SP3-028-001 to 006 (TC Down Bf Developer Emit: Exe).

CAUSE

Firmware bug.

SOLUTION

Permanent solution

Bug fix.

- This bulletin will be revised when the fixed firmware becomes available.
- See next page for temporary solution.

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Temporary solution

- 1. Enter the SP mode and note the following values:
 - TC current : **SP3-200-001~004**
 - TC target : SP3-028-011~014 (default: 7 wt%)
 - TC upper limit : SP3-028-021 (default: 1.5 wt%)
- 2. Do the calculation below and verify that TC current (SP3-200-001~004) is equal to or less than the sum of TC target (SP3-028-011~014) and TC upper limit (SP3-028-021).

TC current \leq TC target + TC upper limit

- 3. If TC current meets the above equation, ignore the error code '9' and replace the developer. The toner density level is normal, and the error code is due to the firmware bug.
 - However, if the TC current does not meet the equation, execute SP3-028-001~006 (Initial TC Adj) again. The result code should show '1'.
 - If it displays '9' again, ignore the error code and replace the developer.



Reissued: 5-Jul-19

Model: Andromeda-P2

Date: 3-Jun-19 No.: RM0B1093a

RTB Reissue

The items in *bold italics* were corrected or added. The picture was added on P2.

Subject: Modified F	PTR to prevent damages to	Prepared by: Masami Okamoto	
From: Service Plar			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Action required Service manual revision Retrofit information Tier 2 Tier 0.5 	

SYMPTOM

The shaft of the PTR (paper transfer roller) comes loose, causing the PTB(paper transfer belt) to tear or ride over the edge frequently. This may occur with units of the initial mass production lot.

* See next page for details and photos.

CAUSE

The torque tolerance was too low for some of the shafts of the initial mass production lot.

SOLUTION

Replace with the modified paper transfer roller (p/n: M0B16249).

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Reissued: 5-Jul-19

Model: Andromeda-P2

Date: 3-Jun-19

No.: RM0B1093a

Torn belt



Touch with your fingers to see if the belt is level. If the difference in height is 1.5mm or more, the belt is probably riding over the edge.



Note that a wavy belt does not necessarily mean that the belt is riding over the edge. Make sure to touch with your fingers to verify the edge of the belt track.





The PTR shafts of the initial mass production lot have a *white or black* marking on the edge.





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Model: Andromeda-P2			Date: 19-J	ul-19	No.: RM0B1094
Subject: How to clean the contact glass in the TIM-Mag unit			Prepared	by: Masami Okamoto	
From: Service Planning Sect., Global Engineering Support Dept.					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receive Other () 		Action re Service n Retrofit ir Tier 2	quired nanual revision nformation Tier 0.5

SYMPTOM

The effect of real-time registration adjustment is not as expected.

CAUSE

The contact glass surface of TIM-Mag is dirtied with paper dust and lubricant powder.

SOLUTION

Part 1: Check if the contact glass in the TIM-Mag unit requires cleaning or not.

Part 2: Clean the contact glass.

1. Check if the contact glass inside the TIM-Mag unit is dirty to a degree that requires cleaning by referring to the photos below and on the next page.



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If the glass is dirty to a degree as shown below, cleaning is necessary. Continue with part two of the procedure to clean the glass.



The contact glass will probably have speckle of dust as in the photo below, but this level of contamination does not require cleaning.



2. Enter the SP mode and verify the settings in SP1-713-001~006.

If all of these settings are not '0', clean the contact glass even if it was verified not dirty in the previous step.

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How to clean the contact glass in the TIM-Mag unit

- Remove the TIM-Mag unit. See FSM for the procedure.
 IMPORTANT: When putting back the unit, do not install CIS 1 and 2 backwards.
- 2. Remove the top cover of the TIM-Mag unit. (Screw x2)



3. Disconnect the FFC from CRB. (Screw x4 on TRB3)



4. Disconnect the USB cable from CRB. (Screw x2)



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5. Remove the following screws (x2) and disconnect FFC (x2) and connector (x1) from CRB.



6. Unlock the following black clamps (x7) and white clamp (x1), disconnect the connectors (x2), and remove the screw fixing the TACT sensor (x1) and screws fixing the heat sink (x5).



7. Remove the CIS using a flathead precision screwdriver. Insert the tip of the screwdriver to the end without the spring plate and lift up to remove.





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8. Clean the contact glass with a duster spray or dry cloth.



- Clean the area outlined in red.
- DO NOT touch the glass with bare hands.

Doing so will affect the auto/real-time registration adjustments.



9. Clean the CIS.



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10. Put back the components of the TIM-Mag unit and make sure that the CIS retrieves its original position.



IMPORTANT

To prevent the TACT sensor from touching the metal shaft, press the TACT sensor in the direction indicated with the arrow as you fasten the screw. Otherwise, it can affect the auto/realtime registration adjustments.

Viewed from top (as in the photo above)

Viewed from the direction of the blue arrow shown in the left diagram to the left



- 11. Reinstall the TIM-Mag unit.
- 12. Turn On the machine, enter the SP mode and do SP1-421-001 (CIS Auto Adjustment Operation). For the procedure hereafter, refer to the following section of the FSM:

Replacement and Adjustment > Transferred Image Reading Module > Precaution for TIM-Mag Unit Installation, After Replacing the TIM-Mag Unit (p.1281~1284)

NOTE: Execution of 'SP1-750-001' is unneeded.

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Model: Andromeda-P2			Date: 09-Aug-19		No.: RM0B1095
Subject: Bevised f	ront-to-back registration ad	iustment proce	dures	Prepared	ov. I Ohno
From: Service Planning Sect., Global Engineering Support					
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part inform Electrical Transmit/re Other (info 	nation eceive rmation)	Action real Service n Retrofit ir Tier 2	quired nanual revision nformation

This bulletin provides the revised procedures for adjusting front-to-back registration.

Table of Contents

- 1. Checking the machine condition
- 2. Checking the paper condition
- 3. Checking the paper tray
- 4. Checking for skew
- 5. How to adjust front-to-back registration (Flowchart)
- 6. Fine-tuning

Appendix

- a) List of bulletins addressing registration problems and jams
- b) How variation in paper length affects front-to-back registration
- c) Advanced Settings [1103: Image Position Feedback Correction]
- d) Specifying the number of test charts for Auto Adjust Image Position

1. Checking the machine condition

- 1-1. Verify that the machine is level within the spec.
 Front-to-rear: ±1mm/1000mm
 Right-to-left: ±0.5mm/1000mm
- 1-2. Verify that the paper transfer belt is in place and not off its track. Refer to bulletin <u>#RM0B1062</u> for the check procedure.

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2. Checking the paper condition

2-1. Verify that the sheets are equal in length, unlike shown in the diagram below.



- 2-2. Verify that the paper is fresh from a new pack that was stored in recommended conditions. Do not use any paper remaining in the tray.
 - Paper loaded on the tray is most affected by humidity at the top and bottom of the stack.
 - Paper expands when too moist and contracts when too dry.



Note that difference in paper length affects the front-to-back registration to a proportion equal to that difference.

See Appendix 'b' for detail on how variation in paper length affects the registration.

3. Checking the paper tray

3-1. Verify that the paper tray is set correctly by referring to <u>RTB #RM0B1088</u>.
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4. Checking for skew

Do the adjustment procedures #1-3 below to check for skew.

- Make sure to use paper with good squareness.
- Use test pattern SP2-109-003: 14 (trimming area).
- Verify that Advanced Settings [1321-02: Jam Detection: Jam097/098] is turned On.

No.	Measurements	Where to measure	Procedure
1	Lengths of the right (non- operator side) and left (operator side) edges	Feed direction \leftarrow L_right direction \leftarrow L_left	Measure the lengths of the image at both L_right – L_left and verify that the difference falls within ±0.2mm If it exceeds ±0.2mm, mechanically adjust the pressure plate by referring to the following section of the FSM: 4. Replacement and Adjustment > Image Adjustment > Adjustment Related to Transport Precision > Paper Transfer Unit (PTR) Angle Correction (Trailing Edge Skew Adjustment)
2	Paper skew	Feed direction A ‡ B	 a) Measure the margins A and B and apply the formula below to calculate the amount of paper skew (PS): PS = (B - A) / T × 200 * T: Length of the paper b) Verify that the skew falls within ±0.15. c) Add the PS value to SP1-503-001.
3	Image skew	Feed direction C	 a) Measure the margins C and D and apply the formula below to calculate the amount of image skew (IS): IS = (D - C) / W×200+PS b) Verify that the skew falls within ±0.15. * W = Width of the paper c) Apply the formula below to calculate the adjustment value: IS / 0.03 d) Add the adjustment value to SP2-104-001.



See notes on the following page.

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*1: For Wt.7~9 media, do the following.

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- Select the media entry (MQP) attached with the suffix '_RA'. or Set the paper transfer roller speed to '0.5%' in Advanced Settings [1331-02: Motor Speed: Paper Transfer roller].
- Set the paper transfer pressure to '3: Pressure 3' in Advanced Settings [1229: Paper Transfer Pressure].

NOTE: Productivity may decrease with mixed media jobs, if a different transfer pressure is specified for each media type used in the job.

- *2: Use the PDF files attached below. For custom sizes, select the nearest standard size and print the image (pattern) as it is without changing the size.
- *3: Master image refers to the 'Absolute value' described in the PDF file.
- *4: FSM: 6 Troubleshooting > Image Quality > Image Quality 004: Unevenness > Uneven density within 127mm (5 inch) of the trailing edge
- *5: As for the number of test charts printed in Auto Adjust Image Position, apply the default, which will print 30 copies in total. See APPENDIX (d) for explanation on how the number of copies affects the adjustment accuracy.

	Trim pattern (Measurement: A)	Solid pattern (Measurement: B)			Trim pattern (Measurement: A)	Solid pattern (Measurement: B)
12x18 in	12x18_trim.pdf	12x18_solid.pdf		DLT	DLT_trim.pdf	DLT_solid.pdf
13x19 in	13x19_trim.pdf	13x19_solid.pdf	-	LT	LT_Y_trim.pdf	LT_Y_solid.pdf
A3	A3_trim.pdf	A3_solid.pdf	-	Legal	LG_trim.pdf	LG_solid.pdf
A4	A4_Y_trim.pdf	A4_Y_solid.pdf		SRA3	SRA3_trim.pdf	SRA3_solid.pdf
<u> </u>	<u>.</u>			SRA4	SRA4_Y_trim.pdf	SRA4_Y_solid.pdf

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5. Fine-tuning

Do the following procedure if fine-tuning is required. Make the adjustment using the customer job.

1. Make measurements at locations A~M shown below from at least 3 copies and calculate the average.

It is recommended to make the measurements to the first decimal place.



2. Do the calculations described in the table below and add the fine-tuning values to the SP.

The calculations yield the amount of deviation of the back side against the front side, thus the adjustment applies to the back side to match with the front side.

L: Length of the paper (as input to the custom paper settings) W: Width of the paper (as input to the custom paper settings)

No.	Adjustments	Formula	Target tolerance	SP modification
1	Magnification ratio in main scan direction (MM)	MM = {(W - H - J) / (W - B - C) -1} × 100	±0.05%	Add the MM value to Advanced Settings 1104-07 .
2	Magnification ratio in sub scan direction (SM)	SM = {(L - G - M) / (L - A - F) -1} × 100	±0.05%	Add the SM value to Advanced Settings 1104-08 . Round the value in 0.025% steps.
3	Registration in main scan direction (MR)	MR = {(B + E) - (H + K)} / 2	±0.3mm	Add the MR value to Advanced Settings 1104-03 .
4	Registration in sub scan direction (SR)	SR = {(G + I) - (D + F)} /2	±0.3mm	Add the SR value to Advanced Settings 1104-04 .



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APPENDIX

a) List of bulletins addressing registration problems and jams

Bulletin No.	Content
RM0B1015a	Troubleshooting inaccurate image scaling in sub scan direction caused by high image coverage
RM0B1035	Adjustments required after replacing components that affect registration
RM0B1060	Registration adjustments required at new site installations
RM0B1061	Cleaning procedure of the shading plate under the CIS in the registration unit
RM0B1062	Check procedure to verify proper status of the paper transfer belt
RM0B1075a	Details on the registration adjustments available with TIM-Mag
RM0B1080	Revised machine leveling procedure
RM0B1087	Tray air-assist setting to prevent J080/J097 that occur with thin paper stocks
RM0B1088	Machine leveling and tray adjustments to prevent J080/J097

b) How variation in paper length affects front-to-back registration



After passing through the switchback/inverter path, the trailing edge when printed the front side becomes the leading edge to print the back side.

Front side registration Back side registration



Front-to-back registration aligns, if the conditions below are met after making the adjustments:

A1 = C2 B1 = B2 C1 = A2

Front-to-back registration will not align, if the length of the paper changes before printing. Shown below is an example when the paper has contracted.



Misalignment occurs because contraction of the paper causes the below:

A1 ≠ C2' B1 = B2 C1' ≠ A2



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c) Advanced Settings [1103: Image Position Feedback Correction]

TIM-Mag unit scans the registration marks printed on the front side and feeds back the correction value by averaging the amount of deviation verified.

Select '2: Back' to prioritize quick feedback, which will apply the correction starting from the 11th page of the job.

Front Side	1	2	 10	11	
Back Side	1	2	 10	11	

Select '3: Front/Back' to prioritize registration of the front side (keystone registration).

- TIM-Mag scans the registration marks from 10 pages and feeds back the average correction value in the shortest possible cycle to the front side of a page that has not been developed of the latent image on the drum yet.
- Then, 10 pages of the front side are scanned and calculated of the average correction value for the back side, so that the registration of back side matches with that of the front side.
- The timing of when the correction applies differs depending on the paper size.

Front Side



Paper size	Side	Feedback Timing
A4	Front	21 st
	Back	30 th
A3/SRA3	Front	17 th
	Back	26 th
700mm	Front	15 th
	Back	24 th

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d) Specifying the number of test charts printed for Auto Adjust Image Position

In Adjustment Settings for Operators [0107: Auto Adjust Image Position: No. of Test Print Sheets], you can specify the number of test charts printed in Auto Adjust Image Position.

01: Front side (Default: 10, Min: 1, Max: 100)

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- 02: Back side (Default: 10, Min: 1, Max: 100)
- 04: Front-to-back (Default: 10, Min: 1, Max: 100)

As shown in the graph below, the registration accuracy degrades when the number of test charts is specified to a smaller number, which is especially noticeable with thin/light stocks.



NOTE: Plain paper was used in the above test.

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Model: Androme	ate: 4-Oct-19		No.: RM0B1096		
Subject: SC441-xx caused by toner contamination on the ITB motor encoder					red by: Masami Okamoto
From: Service Plan					
Classification:	Troubleshooting Image: Constraint of the second	Part in Electri Transr Other	formation cal nit/receive ()	Action	on required vice manual revision rofit information 2

SYMPTOM

- SC441-xx (ITB motor error)
- 140mm-pitch banding
- Color registration shift

CAUSE

Airflow from the mainframe exhaust fan contaminates the ITB drive encoder and/or ITB motor rotation sensors with toner and affects the pulse readings.

Printing long runs and high coverage jobs increases the risk of the problem.



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Problem mechanism

<u>SC441-xx</u>

Pulses generated from the photosensors based on the encoder rotation stop or become irregular due to toner contamination on the emitter and/or receiver of the photosensor.

140mm-pitch banding

Toner contamination concentrated on a particular area on the surface of the encoder causes to change the ITB rotation speed, generating bands at pitch equivalent to the periphery of the ITB drive roller (140mm).



Color registration shift



When the entire surface of the encoder is contaminated with toner, the encoder readings are false detected, affecting the ITB rotation speed.

F	SI	C	C)H		

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SOLUTION

- 1. First, clean the encoder with cloth.
- 2. Procure the newly registered Air Block Sheets (x6) and attach them by following the procedure described below.

NOTE

- Clean the surface to where the sheets attach with alcohol in advance.
- After attaching the sheets, make sure to thoroughly press them to prevent them from peeling off.

Air block sheets

New P/N	Description	Q'ty
M0B11351	SEAL:HOUSING:DRIVE:INTERMEDIATE TRANSFER:NO.1	1
M0B11352	SEAL:HOUSING:DRIVE:INTERMEDIATE TRANSFER:NO.2	1
M0B11353	SEAL:HOUSING:DRIVE:INTERMEDIATE TRANSFER:NO.3	1
M0B11354	SEAL:HOUSING:DRIVE:INTERMEDIATE TRANSFER:NO.4	1
M0B11355	SEAL:HOUSING:DRIVE:INTERMEDIATE TRANSFER:NO.5	1
M0B11356	SEAL:HOUSING:DRIVE:INTERMEDIATE TRANSFER:NO.6	1

Procedure

1. Remove the ITB motor and housing from the ITB unit.



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2. Attach M0B11355 as shown below.





3. Attach M0B11356 as shown below.



This sheet is purposed to cover the gap in the elongated hole.





6. Attach M0B11354 as shown below.



7. Confirm secure attachment of the sheets (x6) and reassemble the motor and housing.

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Reissued: 1-Nov-19

Model: Andromeda-P2 Date				e: 2-Jul-19		No.: RM0B1092c
Subject: SC693-		Prepared by: Masami Okamoto				
From: Service Plar)ept.					
Classification:	Troubleshooting Mechanical Paper path Product Safety	Part inf Electric Transn	format cal nit/rec	ion] Actio] Servi] Retro] Tier 2	n required ce manual revision ofit information 2

Note:

- ✓ This bulletin is a revision of #RMB1092b and provides a complete set of procedures to resolve SC693-02 at machine startup.
- ✓ For the sake of legibility, the entire bulletin was rewritten instead of describing the additions/corrections in bold italic.
- The procedure to check for the folder 'piramid' using an Ethernet cable (Part 2, step 2-1 of #RMB1092b) was deleted, because reinstalling the ACD OS apps will install the missing folder, if missing.

SYMPTOM

- SC693-02 (Auto Color Diagnosis Unit: engine communication error) at machine startup
- Reinstallation of the ACD OS fails because the system enters the energy saver mode during the reinstallation.
- ACD app installation with the SD card fails.

CAUSE

The ACD unit does not activate within the prescribed time due to a problem with its OS.

SOLUTION

Correct the OS problem by following the procedure below. Stop the procedure when the SC disappears.

NOTE: Most problems should resolve after performing Part 2 of the procedure.

Part 1: Update the ACD firmware...... (p.2)

- **Part 2:** Reinstall the ACD OS and apps...... (p.3~5)
- Part 3: Check the LED status of the VMCU/VICU boards........... (p.6~10) If lit in red, rewrite the program. If lit in red even after rewriting the program, replace the affected board(s) or the entire ACD unit.
- Part 4: Update the BIOS for the VPU motherboard.....(p.11~18)

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Part 1: Updating the ACD firmware

1-1. Update the firmware to the versions listed below.

Firmware	Version	Part Number
ACD Unit M-Ri	01.001.00 or later	M5185236B
ACD Unit M-FPGA	01.002.00 or later	M5185235D
ACD Unit I-Ri	01.002.00 or later	M5185238C
ACD Unit System	01.008.01 or later	M5185234N
ACD Unit I-FPGA	01.003.00 or later	M5185237D
ACD Unit Param	01.007.00 or later	M5185239L

1-2. Turn On the machine and check if the SC occurs. Stop the procedure if the SC disappeared. If the SC occurred or the firmware could not be updated properly, continue with Part 2 of the procedure.

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Part 2: Reinstalling the ACD OS and applications

NOTE: This procedure will take approximately **110 minutes**.

Overview of the procedure

- Creating a backup of the FR correction parameters and ACD properties (20 min)
- Reinstalling the ACD OS and ACD applications using ACD_Unit_App_Installer (80 min)
- Restoring the FR correction parameters and ACD properties (10 min)
- Creating a backup of the FR correction parameters and ACD properties (20 min)
- 2-1-1. Connect the FTP client software to the ACD unit and create a backup of the FR correction parameters by referring to RTB #RM0B1049.If you cannot create a backup for an unknown reason, contact your representative to procure the parameter file.
- 2-1-2. Likewise, connect the FTP client software to the ACD unit and create a backup of the ACD properties by copying the entire directory below:

/home/ricoh/piramid/vpu/release/ProfileData

- **NOTE:** Work carefully not to falsely move or delete files, or the system will not be able to activate.
- Reinstalling the ACD OS and ACD applications using ACD_Unit_App_Installer (80 min)
 - **NOTE:** Before reinstalling the OS and applications, go to System Settings > Timer Settings > Sleep Mode Timer, and verify that the timer is set to '60 min' or more (default: 60min). Installation of the OS and applications each take approximately 20 minutes. If the mainframe enters the energy saver mode during the installation process, installation will fail because the ACD unit synchronizes with the mainframe.
- 2-2-1. Install the OS installer and application installer of the version listed below or newer. See FSM for the procedure.
 - ACD Unit OS Installer Ver.01.001.01 (Includes two iso files.)
 - ACD Unit App Installer Ver. 01.011.01
- 2-2-2. Install the OS using the install media created with "ver******_01.iso". (1st install)

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2-2-3. Install the OS using the install media created with "vpu_image_ver2.iso". (2nd install)

NOTE: The FSM describes the OS installation in one step, but the actual procedure requires two installations in two steps.

2-2-4. Install the application using the install media created with "ACD_Unit_App_Installer".

NOTE:

- To upgrade a specific application, do so after installing the application with the App_Installer.
- ACD app installation with the SD card may fail in the following cases:
 - ACD app was not copied onto the SD card properly because the SD card was removed from the slot before the app was completely copied. Wait for the 'Safely Remove Hardware' icon to appear at the bottom right of the PC screen before removing the SD card.
 - The SD card does not work well with the ACD unit. It is recommended to use the SD card registered as a service part.
- 2-2-5. Reinstall all the ACD unit related applications using ACD_Unit_App_Installer.
 - **NOTE:** The screen blacks out while installing the OS and applications, because the process takes a long time (approx. 20 min). DO NOT remove the install media or turn Off the machine power during the installation, or the installation will fail. To verify the installation progress, press a key that will not affect the process, like the **Ctrl** key. If a key is pressed while the installation is still in progress, screen appears. If pressed after the installation has completed, the screen does not appear because the power turns Off automatically after the installation completes.
- Restoring the FR correction parameters and ACD properties (10 min)
- 2-3-1. Connect the FTP client software to the ACD unit, copy the backup of the FR correction parameters from the PC, and paste it to the following directory:

Directory	: /home/ricoh/piramid/vpu/release
File	: FRC_Parameter.csv

- 2-3-2. Likewise, copy the backup of the ACD properties from the PC and paste it to the following directory:
 - Directory : /home/ricoh/piramid/vpu/release/ProfileData
- 2-3-3. Turn Off the main power.
 - **NOTE:** Work carefully not to falsely move or delete files, or the system will not be able to activate.

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Reference: How to verify if the ACD unit is an OS reinstalled unit or not

1. Connect the FTP client software to the ACD unit.

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2. Access the directory below and open the file vpushell_[yyyymmdd_hhmmss].log:

Directory: /home/ricoh/piramid/vpu/release/log

If the ACD unit is already reinstalled of the OS, the logs described in **bold** below appear.

/ d	ev/mapper/syste	m-boot 38	8480	33947	329957 10%/k	poot
/d	ev/mapper/systen	n-root 40738	136 6	6732328	31913368 18%	/
	tmpfs	3939624	0	3939624	0%	/sys/fs/cgroup
	tmpfs	3939624	1920	3937704	1%	/run
	tmpfs	3939624	0	3939624	0%	/dev/shm
	devtmpfs	3932928	0	3932928	0%	/dev
	Filesystem	1K-blocks	Used	Available	Use%	Mounted on

NOTE: Work carefully not to falsely move or delete files, or the system will not be able to activate. If deleted any files by mistake, reinstall the OS to recover.

If the SC persists even after reinstalling the OS and apps, the problem may be residing in the VMCU/VICU boards. Continue with Part 3 of the procedure.

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Part 3: Checking the LED status of the VMCU/VICU boards

- 3-1. Verify proper behavior of the VMCU and VICU boards by looking at the LEDs circled in yellow in the photo below.
 - If lit in red, the board is defected. Verify the affected board(s). Then, rewrite the VMCU and/or VICU program by referring to the procedures described on the following pages for the affected board(s) displaying the red LED.
 - If the LED lights in red even after rewriting the program, replace the board (VMCU or VICU or motherboard).
 - > If replacing the board(s) does not solve the problem, replace the ACD unit.



Photo above shows an affected VMCU board.

3-2. After rewriting the program or replacing the board(s) / ACD unit, verify proper connection between the ACD unit and engine at both ends of the cable.

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How to rewrite the program on the VMCU/VICU boards

The procedure will take approximately 20 minutes.

What you will need:

a) USB Blaster download cable



- b) PC and Quartus II v14.0.2 or later
- c) USB flash drive
- d) Program files (x4 attached below)
 - cpld.sof
 - cpld.pof
 - outputvicu.pof (for VICU)
 - outputvmcu.pof (for VMCU)

cpld.sof	cpld.pof	outputvicu.pof	outputvmcu.pof

- e) Dummy file (x1 attached below)
 - vpuedebug (Dummy file to prevent the ACD unit from shutting down)



Procedure:

- 3-2-1. Copy the program files (x4) onto your pc.
- 3-2-2. Copy the dummy file onto a USB flash drive.

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3-2-3. Turn OFF the main power and connect the affected board (VMCU or VICU) and your pc with the USB Blaster cable.



- 3-2-4. Connect the USB flash device containing the dummy file to either of the two USB ports on the ACD unit. This will prevent the ACD unit from shutting down.
- 3-2-5. Turn ON the main power, start up Quartus II on your pc and wait for the following screen to appear.

													-	_
Hardnave Setup	000-06wie#[/58-1]									Hole	ITAS	•	Poges	
Enable real-time Ci	to allow background pro	guaranting where a	ralate											
th hat I is	i da	Device	Checksum	Unertade	Program/	verty	Nor8-	Examine.	security	1/314	58			
Witness .				c	Configure	Check Be CLAMP								
Auto Detect														
X Califo														
Add File.														
Curpella														
Maans IN														
Add Devce														
(Pw														
10 Dans														

3-2-6. Click Auto Detect, select 10M04DC and click OK.

🚢 Hardware Setup USB-Bl	Select Device X
Enable real-time ISP to allov	Found devices with shared JTAG ID for device 1. Please select your device.
⊌ [®] L Start	● 10M04DC
Auto Detect	
X Delete	
Me Change File	ОК

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3-2-7. Select and right-click the device **10M04DC**, select **Edit** → **Change file** and specify **cpld.sof**.

No Start	File	Device	Checksum		Examine
Juli				Change File	
Stop	<none></none>	10M04DC	0000000	Baverne	
Auto Detect	<none></none>	CFI_512Mb		Add IPS File	
				Change IPS File	
Delete				Delete IPS File	
Add File				Add FKP File	
hange File				Change EKP File	
Enve File				Delete EKP File	
Saverne	CFI	_512Mb		Add PR Programming File	
dd Device				Change PR Programming Fil	e
1 ^ካ b Up	1200	10000073		Delete PR Programming File	
¹ Down	TDI	intel		Attach Flash Device	
	↓	<u>1</u>	_	Change Flash Device	
		Edit	•	Delete Flash Device	
		Show Dev	ica's Properties	Add Device	
All 🐸 🔊		<filter></filter>	ice a rioperties	Change Device	

3-2-8. Mark the check box under the column **Program/Configure** and click **Start**.

P [®] start	Flo	Device	Checksum	Usercode	Program/ Configure	Verity	Blank- Check
site stop	C:/Users/p000482002	10M04DCU324	00160C81	00160CB1			
🚯 Auto Detect					-		

3-2-9. Verify that the rewriting has completed successfully by referring to the progress bar at the top right of the screen.



3-2-10. Again, select and right-click the device 10M04DC, select Edit → Change file, and this time select cpld.pof that appears under the column Program/Configure. Then, mark the three check boxes and click Start. Verify that the rewriting completes successfully.

File	Device	Checksum	Usercode	Configu
C:/Users/p000482002	10M04DCU324	02765882	00160C81	Ø
CFM0				
UEM				2
snones	CFI_512Mb			

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3-2-11. Select and right-click the Flash device, select **Edit** → **Change**, and select **outputvicu.pof** (for VICU) or **outputvmcu.pof** (for VMCU) depending on which board is affected. Then, clear the three check boxes from the top and mark the eight check boxes (4th to 11th). Click **Start** and wait for about 10~11 minutes until the screen displays **Complete**.



- 3-2-12. After the rewriting completes, turn OFF the main power and disconnect the USB Blaster cable and USB flash drive.
- 3-2-13. Turn ON the main power and verify that the LED is not lit in red. However, if it still lights in red, replace the board or the motherboard.
- 3-2-14. Update the ACD firmware. (Part 1 of the procedure)

If the SC persists even after doing the above, continue with Part 4 of the procedure to check the BIOS for the motherboard.

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Part 4: Updating the BIOS for the ACD unit motherboard

NOTE:

- This procedure is very rarely used and is required only when the BIOS for the ACD unit motherboard is found defective. Only one case has been reported from the field as of the time this bulletin was released.
- In the case of updating the BIOS for the second time using the same USB flash drive, the steps may differ from the first time. To avoid mistakes in the procedure, it is recommended to reformat the USB flash drive and restart the procedure instead of using the same USB flash drive.

What you will need:

- Empty USB flash drive
- Keyboard
- Monitor

Check procedure to verify if the BIOS is defected or not

4-1-1. Turn OFF the main power and connect the ACD unit to a monitor with a d-sub cable.



4-1-2. Turn ON the main power and verify that the error message "ROM Image is not loaded" appears on the screen.



IMPORTANT: DO NOT continue with the procedure if the error message does not appear.

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Creating a bootable USB with Rufus freeware

- 4-2-1. Download the Rufus freeware from the internet to your pc.
- 4-2-2. Insert the empty USB flash drive to the USB port on your pc.
- 4-2-3. Run the Rufus software.
- 4-2-4. In the Rufus setup screen, select FreeDOS for Boot selection and click START.

🖋 Rufus 3.8.1580 (Portable)	-		×
Drive Properties —			
Device			
USB DISK (D:) [4GB]			~
Boot selection FreeDOS	~ ⊘	SELECT	•
Partition scheme	Target system		
MBR ~	BIOS (or UEFI-C	(SM)	~ ?
Show advanced drive properties Format Options Volume label USB DISK			_
File system	Cluster size		
FAT (Default) \vee	64 kilobytes (De	efault)	~
 Show advanced format options Status 			
READY			
© (i) ≩ ⊞	START	CLOSE	
2 devices found			

4-2-5. Wait until the status reaches complete. Keep the USB flash drive connected.

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Downloading the BIOS from the internet

4-3-1. Access the Super Micro website linked below.

https://www.supermicro.com/support/resources/bios_ipmi.php?vendor=1&mlg=3

≪技術サポート	オンラインサポート	オンサイトサービス	RNA	9970-F	製品マニュアル	クイックリファレンス	保证规定	Nii-K
		BIOS & B	MC &	Bundle	ed Downlo	oad		
fotherboard Type: Inte	el ~						810	S for older products
how 25 - entries						Search	:	
Model	\$ Rev	Download Zi	IP	٠	Release Notes		0 Part#0	Description \$
0 111561-1	R 1.0c	X115CE9 A03.6	2					BIOS
X1158A.f X1158A-4N4F	R1.56	SMT X11 156.8	ip.					BNC Firmware
slisovizotina slisovizotina	¥131.1	X11A572500 13	<u>1 Leip</u>					BMC Firmware
0 1109U-+	1.84	REDFISH X10 3	84 2019(83	0 untigred_zip	X100RU-I IPMI 3 8	4 release notes.pdf		BMC Firmware Please update to the latest ASPEED VGA driver in your OS, before updating the IPNI firmware v2.84
X10D8FF X10D8FF-C	3.84	REDFISH X10 3	84 2019083	0 unsigned.zip	Release note X100R	FF (-C) IPMI Recfish 3 84	adf	BMC Firmware Please upd A

4-3-2. In the Search field, type in X11SSQ-L.

			BIOS & E	вмс а	2	Bundled	Downl	oa	d					
Motherboard Typ	e: Intel 🗸											BIOS f	or older produ	<u>icts</u>
Show 25 v ent	tries									Searc	h:	X11SSQ-L		
Model	\$ Rev	¢	Download ZIP		¢	Release Notes		¢	Part#	(¢	Description		¢
X11550-L	R 3.0		X115SOL9 527.zip								1	BIOS		
Showing 1 to 1 of 1	1 entries (filtered fror	n 669	total entries)									Previous	1 Nex	:t

- 4-3-3. Verify the version of the BIOS on the website and download the **X11SSQL** *.***. **Zip** file. Unzip the file, which will display the following 6 files:
 - fdt.smc
 - FLASH.BAT
 - Readme for AMI BIOS.txt
 - X11SSQL*.***
 - afudosu.smc
 - choice.smc

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4-3-4. Copy the above files (x6) to the root directory of the USB flash drive. Note the numbers comprising the asterisk (*) portion of the filename X11SSQL*.***, as this information will be needed later.

クリップボード	整理	新規目	副く 選択	ł. I
\leftarrow \rightarrow \checkmark \uparrow \checkmark \rightarrow PC \rightarrow USB DISK (D	:)	~ č	USB DISK (D:)の検	م م
^	名前	更新日時	種類	サイズ
♪ クイック アクセス	LOCALE	2019/10/09 11:05	ファイル フォルダー	
	📓 autorun.ico	2019/10/09 11:05	ICO ファイル	34 KB
	autorun.inf	2019/10/09 11:05	セットアップ情報	1 KB
📰 ビクチャ 🛛 🖈	fdt.smc	2019/05/31 16:13	SMC ファイル	22 KB
 OneDrive - Ricoh 	S FLASH.BAT	2019/05/31 16:13	Windows バッチ ファ	4 KB
	Readme for AMI BIOS.txt	2019/05/31 16:13	テキスト ドキュメント	3 KB
PC	X11SSQL9.527	2019/05/27 10:42	527 ファイル	16,384 KB
🧊 3D オブジェクト	afudosu.smc	2019/05/31 16:13	SMC ファイル	166 KB
↓ ダウンロード	Choice.smc	2019/05/31 16:13	SMC ファイル	6 KB
🔜 デスクトップ				

4-3-5. Disconnect the USB flash drive from your pc.

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Updating the BIOS

4-4-1. Turn OFF the main power and connect the USB flash drive containing the BIOS files to any USB 3.0 port on the ACD unit and connect a keyboard and monitor.



NOTE: The keyboard and monitor should be set close to the printer, as you will use the keyboard immediately after pressing the power button in the next step.

- 4-4-2. Turn ON the main power and <u>immediately press the F11 key a several times</u> (4~5 times) after the Super Micro screen appears, to display the boot device selection screen.
- 4-4-3. Select **USB DISK 3.0 PMP** using the arrow key and hit **Enter**, to start DOS prompt.



NOTE: The name of the USB device may differ depending on the device.

4-4-4. In the DOS prompt screen, type **FLASH.BAT X11SSQL***.***, and hit **Enter**. For the asterisk portion, type in the numbers noted in step 4-3-4.



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4-4-5. Wait for the screen below to appear, then press the "Y" key. The ACD unit will automatically reboot.

NOTE: Be prepared to press the **F11** key immediately.

FreeDOS DISPLAY ver. 0.13b Buffers allocated: 001 in TPA, 000 in XMS FreeDOS KEYB 2.01 - (c) Aitor Santamaría Merino - GNU GPL 2.0
Keyboard layout : \locale\keyboard.sys:JP [0] (4) C:\>FLASH.BAT X11SSQL9.527 ####################################
ME need enter flash mode.
Creating new autoexec.bat file
nename C:Nautoexec.bat to C:Na.bat: Success Create C:Nautoexec.bat: Success ##################################
System will reboot to change the operating mode in 10 seconds Or please press [Y] key to reboot now!!
* ####################################

- 4-4-6. As done in step 4-4-2, immediately press the **F11** key a several times (4~5 times) after the Super Micro screen appears, to display the boot device selection screen.
- 4-4-7. In the boot device selection screen, again select **USB DISK 3.0 PMAP**. BIOS update process will start.
- 4-4-8. Wait approximately **5 minutes** for the BIOS update to complete, which will be indicated with the WARNING message below.

Upualing DOUL DIOCK done
Verifying Boot Block done
Erasing Main Block done
Updating Main Block done
Verifying Main Block done
Erasing NVRAM Block done
Updating NVRAM Block done
Verifying NVRAM Block done
- /FDT is Locked !!
- Update success for ME \
WARNING : System must power-off to have
C:>>

NOTE: Make sure not to interrupt the update procedure.



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4-4-9. Turn OFF the main power and disconnect the USB flash drive from the ACD unit.

4-4-10. Turn ON the main power, and this time, <u>immediately press the **Delete** key a</u> <u>several times</u> to display the BIOS setup screen and verify the updated version.



4-4-11. Using the arrow key, go to **Advanced** tab, select **Boot Feature** and hit **Enter**.



4-4-12. Using the arrow key, select **Restore on AC Power Loss** from the very bottom of the Boot Feature list and hit **Enter**.

Boot Feature	
Quiet Boot	(E
AddOn ROM Display Mode Bootup NumLock State Wait For "F1" If Error INT19 Trap Response Re-try Boot Install Windows 7 USB Support	(Fi Cor (Er (In (D I
Power Configuration DeepSx Power Policies Watch Dog Function Power Button Function	[Di: [Di: [Ins
Restore on AC Power Loss	[Pou

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4-4-13. Change the option to **Power On** and hit **Enter**.



4-4-14. Press **F4** key to save the setting.

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Model: Andromeda-P2

Date: 25-Oct-19 No.: RM0B1097a

RTB Reissue

Subject: Announcement on the newly supported options			Prepared by: J. Ohno
From: Service Plan			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part information Electrical Transmit/receive Other () 	 Action required Service manual revision Retrofit information Tier 2 Tier 0.5

Pro C92xx Series will newly support the following options from Nov 2019:

New peripherals

- > Finisher SR5110 / Booklet Finisher SR5120
- Trimmer Unit TR5050
- Cover Interposer Tray CI5040

New printer controller

- ➢ EFI Fiery Color Controller E-46
- EFI Fiery Color Controller E-86

To use the new options, firmware for the below modules must be updated <u>together as a</u> <u>set</u> to the versions listed on the following pages or newer:

- 1. Mainframe
- 2. Operation panel
- 3. ACD unit
- 4. New optional peripheral

NOTE:

- SR5110/SR5120, CI5040, and TR5050 must all be of the new version to work on the same system. These new options do not work together with any of the previous versions – SR5050/SR5060, CI5030, TR5040.
- Refer to 'Upgrading the Color Controller E-85/E-45 v1.0 to Color Controller E-86/E-46' included as an accessory to the upgrade kit for the procedure on how to upgrade the Fiery controller.

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Update #1: Mainframe

No.	F/W	Part No.	Version
1	animation	M0B16026J	2.00 or later
2	DTU Firmware	M0B15912K	1.10.0 or later
3	Engine	M0B15160P	1.70:12 or later
4	Graphic Data	M0B16019B	6.00 or later
5	Network Support	M0B16027F	17.20 or later
6	Network Doc Box	M0B16025F	5.03 or later
7	System	M0B16043A	6.02.4 or later
8	TIM-RED	M0B15375B	1.02:02 or later
9	Web Support	M0B16024H	6.00 or later
10	PowerSaving Sys	M0B16023B	1.L3.15.1 or later



- Make sure that all doors of the machine are closed when you update the firmware.
- Insert the SD card [A] to slot 2 (service slot).

Update #2: Operation panel

No.	F/W	P/N	Ver.
1	Jaguar System	M0B21400	6.00 or later
	Jaguar System_CHN	M0B21401	6.00 or later
2	Eco Info Widget (for eDC)	M0B21421_forEDC	3.00 or later
3	IC Card Dispatcher (for eDC)	M0B21414_forEDC	4.00.00 or later
4	Kerberos Service (for eDC)	M0B21427_forEDC	1.01.00 or later
5	Language Widget (for eDC)	M0B21418_forEDC	3.00 or later
6	Legacy UI (for eDC)	M0B21403_forEDC	2.00 or later
7	NFC Plugin (for eDC)	M0B21415_forEDC	4.00.00 or later
8	Operator Adjustment (for eDC)	M0B21425_forEDC	2.03.04 or later
9	Paper Setting (for eDC)	M0B21424_forEDC	2.06.11 or later
10	PP Top Printer Status (for eDC)	M0B21409_forEDC	3.00 or later
11	Quick Card Auth (for eDC)	M0B21413_forEDC	4.01.00 or later
12	USB Card Plugin (for eDC)	M0B21416_forEDC	4.00.00 or later

 Insert the SD card to the SD card slot [A] on the operation panel and start up the machine in **Recovery mode**.



Technical Bulletin

Reissued: 20-Nov-19

Model: Andromeda-P2

Date: 25-Oct-19 No.: RM0B1097a

Update #3: ACD unit

No.	F/W	P/N	Ver.
1	ACD Unit I-FPGA	M5185237E	V01.004.00 or later
2	ACD Unit I-Ri	M5185238D	V02.000.00 or later
3	ACD Unit M-FPGA	M5185235E	V01.002.00 or later
4	ACD Unit M-Ri	M5185236D	V02.000.00 or later
5	ACD Unit Param	M5185239N	V02.023.00 or later
6	ACD Unit System	M5185234Q	V02.024.00 or later

- Download the above firmware to an SD card.
- Be sure to store the update file in the root directory of the SD card.
- Insert the SD card into the USB-SD adapter.
- Connect the adapter to either of the two USB ports [B] on the ACD unit [A].



• <u>When updating from ACD Unit System Ver.01.010.00 or earlier:</u> First, update ACD Unit System to Ver.01.010.00 and ACD Unit Param to Ver01.008.00. Then, update ACD Unit System to Ver.02.024.00.

Note on using WinSCP after the above update:

To use WinSCP (FTP client app) after updating ACD Unit Param to ver.02.023.00 and ACD Unit System to ver.02024.00, make sure to do the following.

• Store the file 'vpussh' attached below to the root directory of a USB flash drive and connect the flash drive to the ACD unit. Without this file, you cannot access the ACD unit via WinSCP.



Technical Bulletin

Reissued: 20-Nov-19

Model: Andromeda-P2 Date: 25-

Date: 25-Oct-19 No.: RM0B1097a

Update #4: Peripherals

No.	F/W	P/N	Ver.
1	Finisher_IGUAZU	D3G85260K	01.090:19 or later
2	Inserter_LAPLATA	D3GA5260C	02.010:02 or later
3	Trimmer_SHINJIKO-C	D3GG5510A	02.120:08 or later

• Insert the SD card to slot 2 [A] (service slot).


Model: Andromeda-P2

Date: 25-Oct-19 No.: RM0B1097a

'Safety Information' for the newly supported options

For NA /AP / CHN / KR

The revised 'Safety Information' containing information on the new options is not included as an accessory to the current Pro C92xx series mainframe and will only be bundled in the mainframe of the following S/N. (See below for the cut-in S/N information.)

* See next page for information on EU model.

IMPORTANT REQUEST:

Please hand out the Safety Information document attached below to customers who meet both of the following conditions:

- > The S/N of the mainframe is **before** the cut-in number described below.
- > The customer uses the newly supported options and/or the new Fiery controller.

Ν	ŀ	ł

Asia / China / Kore	ea
POF	
M0B21006A.	odf

Cut-in S/N:

M0B21004A.pdf

	Product Name	Product Code	Cut-in S/N
ΝΑ	Pro C9200	M0B1-18	5019FA20001
INA	Pro C9210	M0B2-18	5029F920001
	Pro C9200	M0B1-29	5019FA60001
AP /CHN / KK	Pro C9210	M0B2-29	5029FB60001

Technical Bulletin

Reissued: 20-Nov-19

Model: Andromeda-P2	Date: 25-Oct-19	No.: RM0B1097a
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For EU

The revised 'Safety Information' for EU models will eventually be bundled in the Language Kit. Until then, the revised document will be included as an accessory to the mainframe at the RPL configuration center.

IMPORTANT REQUEST:

Please hand out the Safety Information document attached below to customers who have purchased the Fiery controller E-46/E-86 or upgraded E-45/E-85 to E-46/E-86.



How to distinguish the current and new Fiery controller

Check the model name on the Fiery plate.

- Current Fiery : E-45 / E-85
- ➢ New Fiery : E-46 / E-86



Technical Bulletin

Model: Andromeda-P2 (M0B1/M0B2) Date:				1-Nov-19	No.: RM0B1098
Subject: New drum	n cleaning gears to preve	ng failure	Prepared by	/: Takuya Hirakawa	
From: Service Planning Sect., Global Engineering Support				-	
Classification:	Troubleshooting	Part inform	nation	🗌 Action requ	uired
	Mechanical	Electrical		Service ma	anual revision
	Paper path	Transmit/re	eceive	Retrofit info	ormation
	Product Safety	🗌 Other ()	🛛 Tier 2	Tier 0.5

SYMPTOM

The drive gear of the drum cleaning unit wears out and causes the following symptoms:

- SC39X (Drum motor error)
- SC32X (Development motor error)
- > Drum cleaning failure

CAUSE

The gear tends to strip because the same material is used for the drive and idle gears.

SOLUTION

Production line:

Changed the material of both the drive and idle gears.

Old part number	New part number	Description	Q'ty	Int
M2051522	M2051526	GEAR:DRIVE:CLEANER:26Z	1	X/O
M2051523	M2051527	GEAR:CLEANER:IDLER:35Z/28Z	1	X/O





New gear



①GEAR:DRIVE:CLEANER:26Z
②③GEAR:CLEANER:IDLER:35Z/28Z

In the field:

If the above symptoms occur, replace with the new set of gears using the procedures described on the following pages.



Model: Andromeda-P2 (M0B1/M0B2) Date: 14-Nov-19 No.: RM0B1098

Procedure

- 1. Open the rear box.
- 2. Hold the rotor as you remove the screw circled in red. (screw x1)



3. Remove the drum cleaning motor. (screw x3, connector x1)





- 5. Remove the drive gear shaft assembly and the old idle gear.
- 6. Remove the old drive gear from the shaft.



7. Apply grease to the new set of gears.

NOTE

- Use Molykote EM-50L or Molykote G-1007 grease.
- To grease the gear entirely and evenly, apply grease to 10 separate spots across the gear teeth; approximately 0.05g (see photo below) for each spot.



8. Install the new gears and reassemble the components by following the above steps in reverse order.

Technical Bulletin

Model: Androme	da-P2.5	Nov-19	No.: RM0B1099		
Subject: Wrong back colorprofile is applied					by: H Kawamura
From: CP Business Group, DAS Center, GES Dept., Service					
Classification:	Troubleshooting	Part inform	Part information		quired
	Mechanical	Electrical		Service n	nanual revision
	Paper path	Transmit/re	eceive	Retrofit ir	nformation
	Product Safety	Other ()	🛛 Tier 2	☐ Tier 0.5

SYMPTOM

Wrong color on back side.

<Note>

This symptom only appears on either Fiery controller E-86, E-46, E-86A, E-46A, E-36A, or any system upgrade kit to E-86, E-46, E-86A, E-46A, E-36A

CAUSE

Front color profile is applied to back side

ACTION

Please check if the following patch is allied to the Fiery controller, and if not, apply the following patch.

<Fiery controller E-86 or System Upgrade Kit to E-86>

FIT000277742

The following prerequisite must be installed in the order specified before applying the FIT000277742.exe patch:

· SP1_FIT102047768

<Fiery controller E-46 or System Upgrade Kit to E-46>

FIT000277742

The following prerequisite must be installed in the order specified before applying the FIT000277742.exe patch:

· SP1_FIT102047768

Model: Andromeda-P2.5

Date: 25-Nov-19

No.: RM0B1099

<Fiery controller E-86A or System Upgrade Kit to E-86A>

FIT000277734

The following prerequisite must be installed in the order specified before applying the FIT000277734.exe patch:

· SP1_FIT102047754

<Fiery controller E-46A or System Upgrade Kit to E-46A>

FIT000277734

The following prerequisite must be installed in the order specified before applying the FIT000277734.exe patch:

· SP1_FIT102047754

<Fiery controller E-36A or System Upgrade Kit to E-36A>

FIT102055258

The following prerequisite must be installed in the order specified before applying the FIT FIT102055258.exe patch:

· SP1_FIT102047758

Technical Bulletin

PAGE: 1/2

Model: Androme	eda-P2 (M0B1/M0B2	ec-19	No.: RM0B1100		
Subject: Troublest	nooting SCs pertaining to	nit	Prepared	by: Takuya Hirakawa	
From: Service Planning Sect., Global Engineering Support					
Classification:	Troubleshooting	🛛 Part inform	nation	Action r	equired
	Mechanical	Electrical		Service	manual revision
	Paper path	Transmit/re	eceive	Retrofit	information
	Product Safety	Other ()	🛛 Tier 2	Tier 0.5

SYMPTOM

Poor connection of the drawer connectors in the registration unit causes the following SC.

SC N	NO. ERROR NAME		Drawer connector on the registration unit	Harness connected to the registration unit	Drawer connecto r on the mainfram e	Harness connected to the mainframe
452	-00	PTB Lift Error	CN/359	M0B15680	CN//377	M0B15559
530	-63	ID Sensor Cleaning Ean Error		WOD 10000	0114077	NIOD 10000
590	-24	Begistration Timing Motor Error	-			
000	-26	Shift Boller Motor Error	-			
512	-01	SWIFT Unit Botation HP Sensor Error	CN5057	M0B15682	CN4377	1
0.2	-02	SWIFT Unit Rotation Encoder Error		MOD TOOOL		
	-03	SWIFT Unit Error	-			
513	-01	SWIFT Unit Shift Sensor Error	_			
0.0	-02	SWIFT Unit Shift Encoder Error	_			
	-03	SWIFT Unit Error	-			
515	-01	Registration Roller HP Sensor 1	-			
	-02	Registration Roller HP Sensor 2				
530	-46	Registration Cooling Fan Error	1			
627	-00	SCU Communication Error	1			
370	-01	ID Sensor Calibration Error (Front)	CN4038	M0B15671	CN4039	
	-02	ID Sensor Calibration Error (K)				
	-03	ID Sensor Calibration Error (C)	1			
	-04	ID Sensor Calibration Error (M)	1			
	-05	ID Sensor Calibration Error (Y)				
	-06	ID Sensor Calibration Error (Rear)]			
371	-01	ID Sensor Output Error: background output				
		(Front)				
	-02	ID Sensor Output Error: background output (K)				
	-03	ID Sensor Output Error: background output (C)				
	-04	ID Sensor Output Error: background output (M)				
	-05	ID Sensor Output Error: background output (Y)				
	-06	ID Sensor Output Error: background output				
	-	(Rear)	_			
373	-01	ID Sensor Pattern Density High Error (K)	_			
	-02	ID Sensor Pattern Density High Error (C)	_			
	-03	ID Sensor Pattern Density High Error (M)	4			
074	-04	ID Sensor Pattern Density High Error (Y)	4			
3/4	-01	ID Sensor Pattern Density Low Error (K)	4			
	-02	ID Sensor Pattern Density Low Error (C)	4			
	-03	ID Sensor Pattern Density Low Error (M)	4			
005	-04	ID Sensor Pattern Density Low Error (Y)	4			
695	-01	LID Sensor SPI Communication Error	1	1	1	1



Model: Andromeda-P2 (M0B1/M0B2) Date: 9-Dec-19 No.: RM0B1100

CAUSE

Foreign materials like scraps of paper and dust get stuck in the connector pins of the drawer connector (when opening/closing the drawer unit), causing abnormal signals.

SOLUTION

When the SC appears positively

Refer to the SC table and replace both harnesses – registration unit side and mainframe side.

When the SC appears intermittently

Clean the drawer connectors. If the SC persists, replace both harnesses by referring to the SC table.

Technical Bulletin

PAGE: 1/2

Model: Andromeda-P2 (M0B1/M0B2) Date: 7-Jan				an-19	No.: RM0B1101
Subject: New Type	e Debug Cable	Prepared	by: Hiroaki H Matsui		
From: Service Planning Sect., Global Engineering Support					
Classification:	Troubleshooting	🛛 Part inform	nation	Action r	equired
	🗌 Mechanical	Electrical		Service	manual revision
	Paper path	Transmit/re	eceive	Retrofit	information
	Product Safety	Other ()	🛛 Tier 2	Tier 0.5

Part Information

P/N

To meet requests from the field, the new type debug cable was registered as a service part.



Length: 2m (6.56ft)

See notes on the following page.

: M0B15888



Model: Andromeda-P2 (M0B1/M0B2)	Date: 7-Jan-19	No.: RM0B1101
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NOTE:

- \checkmark The cable can also be used for Leo-1/2 and Charis-C1Pro/C2Pro.
- ✓ The cable cannot be used for Aegis-C1/P1/Aries-C1.5/P1.5 and Taurus-C1/P1. For these models, use the old debug cable (p/n: G1785397, PCB:SIFB:CROSS).
- ✓ With the old type debug cable, cables [A] and [B] were required as a set to connect the debug cable to your PC. The new debug cable replaces these cables.
- ✓ Cables [C] is not required when using the new debug cable, because the new debug cable is 2m (6.56ft) long.
- RS232c serial to USB converter [D] is still required when using the new debug cable.



ITEM	P/NO.	Note
Α	G1785397	Debug Cable (designed for Aegis)
В	D1945398	Harness: Debug: Monitor: Service: Connecting
C	9 Pin f/f Serial Cable	This cable can be ordered online or found in any electronics store
D	RS232c Serial to USB Converter	This cable can be ordered online or found in any electronics store

Technical Bulletin

Model: Andromeda-P2			Date: 8-Jan-20		20	No.: RM0B1102
Subject: Troubles by Drum	hooting Streaks Along Feed Dir cleaning / Charger / Quenching	rection (ca g lamps)	used	Prepare	d by: Ma	asami Okamoto
From: Service Plar	nning Sect., Global Engineering	Support [Dept.			
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	Part in Electri Transr Other	format cal nit/rec	tion eive)	Actio	n required ice manual revision ofit information 2

Please add the following troubleshooting procedure to your FSM in section:

6. Troubleshooting > Image Quality > Image Quality 002: Streaks

SYMPTOM

RICOH

White, color or black streaks appear along the feed direction.



CAUSE

Dirty charge unit, foreign substance on the charge unit, dirty laser unit dust shield glass, uneven lubricant on the drum surface, dirty drum cleaning unit, scratched drum, clogged doctor gap or dirty development unit entrance film.

SOLUTION

Do the flowchart on the following pages.

NOTE

- The flowchart DOES NOT include the procedures to resolve problems originating in the development unit – clogged doctor gap and/or dirty development unit entrance film.
- If the problem does not resolve even after doing the flowchart, do the following as the problem is probably originating in the development unit or the laser unit dust shield glass.
 - Do the troubleshooting procedure 'Vertical white streak' described on page 2264 of the FSM.
 - > Clean the development unit entrance film.

Technical Bulletin





RICOH	T ech	nical B u	lletin	PAGE: 4/4
Model: Andromeda	a-P2	D	ate: 8-Jan-20	No.: RM0B1102
Note1: Halftone pa	tterns			
PEF	PDF	PDF	PDF	
C20%.pdf	M20%.pdf	G15%.pdf	K20%.pdf	
Note 2: Solid patte	rns (2 pages)			
PDF	PDF	PDF	PDF	
R100%_2p.p	odf G100%_2p.pdf	B100%_2p.pdf	K100%_2p.pdf	

Note 3: Running [0508: Execute Developer Refreshing] causes toner to accumulate on the PTR entrance guide plate. To remove the toner from the guide plate, print a test pattern or feed a blank sheet.

0	. Price					
20 30	DPI:	1200dpi	L'ALL	プリンタ	テスト	パターン
40						
50 60						
70				yr-		

When printed without cleaning the guide plate, a streak of toner appears at approximately 25mm from the leading edge on the first sheet.

Note 4: Added procedure for cleaning the drum lubricant blade

1. Rub the corner of the blade (circled in red in the diagram below) entirely from front to rear with plastic gloves. If a plastic glove is not in hand, use a microfiber cleaning cloth.



2. To prevent excess torque, apply zinc stearate and yellow toner to the drum lubricant roller and to the corner of the blade.

Technical Bulletin

Model: Andromeda-P2 (M0B1/M0B2) Date: 16				Jan-20	No.: RM0B1103
Subject: Troubleshooting white spots/streaks caused by drum					by: Takuya Hirakawa
scratches					
From: Service Planning Sect., Global Engineering Support					
Classification:	Troubleshooting	Part inform	nation	Action r	equired
	Mechanical	Electrical		Service	manual revision
	Paper path	Transmit/r	eceive	Retrofit	information
	Product Safety	Other ()	🛛 Tier 2	Tier 0.5

SYMPTOM

White spots or white streaks appear in solid images. Spots appear at 307mm interval.



[A] Paper feed direction

CAUSE

When continuously printed high coverage images, the amount of lubricant on the drum surface decreases. This causes toner additives to adhere to the drum surface and may also scratch the drum.

NOTE:

If the front doors are opened while printing and the machine stops in an emergency, the developer may adhere to the drum cleaning brush roller and scratch the drum. Please advise operators to always check the message on the operation panel before opening the front doors and never to open while printing.

SOLUTION

1. Check if the symptom occurs in the same position for each color.

If YES, refer to the troubleshooting section of the FSM and do the procedure(s) for vertical streaks caused by the belt-to-paper transfer process.

If NO, do the next step.

RICOHTechnical BulletinPAGE: 2/2Model: Andromeda-P2 (M0B1/M0B2)Date: 16-Jan-20No.: RM0B1103

2. Check for any scratches or toner adhesion on the drum surface.

If YES, do the next step.

If NO, refer to the troubleshooting section of the FSM and do the procedure(s) for vertical streaks caused by the development unit.

- 3. Check if the gears of the drum cleaning unit are of the modified ones or the old ones by referring to RTB #M0B1098a. If the gears are of the old type, replace with the new type for all YMCK stations.
- 4. Check if developer is adhered to the drum cleaning brush roller by touching the brush roller with a magnetic screwdriver.

If developer is present, skip step 5 and do step 6.



5. Make the following SP modifications, which will enhance the drum cleaning process.

SP No.	Description	Default	Change to
SP2-225-025	Drum cleaner setting: Period of Revs1	12000	4000
SP2-225-031	Drum cleaner setting: Thresh Temperature1	15	50
SP2-225-037	Drum cleaner setting: Distance coefficient2	100	130
SP2-225-038	Drum cleaner setting: Distance coefficient3	100	130
SP2-225-039	Drum cleaner setting: Distance coefficient4	100	130
SP2-225-052	High Cover Img: Continue Print: Threshhold1	14	10
SP2-225-061	High Cover Img: Continue Print: Drum Cleaning Mtr Speed1	130	150

NOTE: The above modifications may cause banding or streaks as a result of excess lubricant on the drum surface. If verified the side effects, retrieve the default values.

- 6. Replace the following parts of the affected station(s):
 - Drum
 - Cleaning unit

Technical Bulletin

PAGE: 1/2

Model: Andromeda-P2			Date: 21-Jan-20		No.: RM0B1104	
Subject: New TIM-Mag protective sheet for transport					Prepared by: J. Ohno	
From: Service Planning Sect., Global Engineering Support						
Classification:	 Troubleshooting Mechanical Paper path Product Safety 	 Part info Electric Transm Other (ormation al it/receive)	 Action r Service Retrofit Tier 2 	required manual revision information Tier 0.5	

Change: A protective sheet (and bracket) was inserted between the TIM-Mag unit cover and the ground plate underneath for transport. See next page for cut-in s/n.



Reason: The above cover and plate may rub against each other during transport, causing metal powder to drop on the PSU located under the TIM-Mag unit and short circuit.







RI	СОН

Technical	Bulletin

Model: Andromeda-P2

Date: 21-Jan-20 No.: RN

No.: RM0B1104

Note

- After installation, make sure to store the protective sheet and bracket in the accessories box in case the machine needs to be transported.
- Match the dots A and B when attaching the bracket.



Cut-in serial number

Model	Region	Product Code	S/N
Pro C9200	NA	M0B1-18	5019FA20001 ~
	EU	M0B1-27	5019FB40001 ~
	AP/CHN/KR	M0B1-29	5019FA60001 ~
Pro C9210	NA	M0B2-18	5029FA20001 ~
	EU	M0B2-27	5029F940006 ~
	AP/CHN/KR	M0B2-29	5029FB60001 ~