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Model: PR-C201

No. : ECN22T068KGC-01

Date : 2023.02.28

Ref. : 22-10-0001

Subject: Printer controller firmware change notice (Ver. 5.8 => Ver. 5.9)

Summary:

PR-C201 printer controller firmware changes

	Old	New
PR-C201	Ver.5.8	Ver.5.9

Detail:

No.	Item	Detail								
1	Fixed a problem with white streaking on the printed surface of cards and prevented BK from peeling off at low temperatures.	1-1. when Bk ruled line images are printed continuously, foreign matter accumulates on the head heating element and inhibits the transfer of the ink ribbon, resulting in white streak images.  Optimized head heater control in the ruled line printing section prevents foreign matter deposition and prevents white streak images. 1-2. optimize the head heater control so that the difference in head temperature between the printed and non-printed areas is appropriate, thereby preventing Bk peeling at low temperatures. 1-3. Various modes and adjustment values shall be changed according to the above <table><tr><th>No.</th><th>Changes</th></tr><tr><td>a</td><td>The function that automatically switches [HIGH SPEED] mode to [HIGH QUALITY] mode at low temperatures has been eliminated (manual switching remains unchanged). The optimization of head heater control during primary transfer (Bk) has improved Bk peeling at low temperatures, eliminating the need for automatic switching.</td></tr><tr><td>b</td><td>Move [Black Sub-Heat] from User Mode to Service Mode Before change: User Mode > Image Setup > Black Sub-Heat After change: Service Mode > Adjustment > Density > Black Sub-Heat To prevent users from mistakenly entering the recommended value of "-80" for the previous version.</td></tr><tr><td>c</td><td>Adjustment values are automatically rewritten at the time of firmware update (only at the first change) User Mode > Image Setup > Balance Black : 4 → 0 Service Mode > Adjustment > Density > Black Sub-Heat : -80 → 0</td></tr></table>	No.	Changes	a	The function that automatically switches [HIGH SPEED] mode to [HIGH QUALITY] mode at low temperatures has been eliminated (manual switching remains unchanged). The optimization of head heater control during primary transfer (Bk) has improved Bk peeling at low temperatures, eliminating the need for automatic switching.	b	Move [Black Sub-Heat] from User Mode to Service Mode Before change: User Mode > Image Setup > Black Sub-Heat After change: Service Mode > Adjustment > Density > Black Sub-Heat To prevent users from mistakenly entering the recommended value of "-80" for the previous version.	c	Adjustment values are automatically rewritten at the time of firmware update (only at the first change) User Mode > Image Setup > Balance Black : 4 → 0 Service Mode > Adjustment > Density > Black Sub-Heat : -80 → 0
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		-80 → 0 Density K adjustment value correction: Current adjustment value → Current adjustment value +7 (Service Mode > Adjustment > Density > K) User-set values other than the above are inherited. Supplementation (1) After updating the firmware, the density may become lighter (thinner lines). In this case, check the density in the actual image and adjust the [Balance Black] value. After updating the firmware, switch to [HIGH SPEED] mode or [HIGH QUALITY] mode as necessary. - Select [HIGH QUALITY] ⇒ If you use many fine lines and small letters or want to reduce Bk missing characters in a low temperature environment - - Select [HIGH SPEED] ⇒ Select when there is no problem with Bk print quality in the sample printed in [HIGH SPEED] mode.
2	Prevention of ink ribbon breakage during test print pattern X continuous printing	The ink ribbon may break on the second sheet during continuous printing of test print pattern X. This printer reverses the ribbon take-up motor (DM1) to reduce the ink ribbon tension when nipping the primary transfer roller. However, when the winding diameter on the ribbon take-up side is small, the ribbon take-up motor (DM1) may not rotate smoothly due to cogging and the ribbon tension may not be reduced. If printing of pattern X with high black density overlaps with this, high heat is applied to the ribbon, leading to breakage. Therefore, the ribbon take-up motor (DM1) during nipping with the primary transfer roller is changed to a current control that is not affected by cogging. This prevents tension from being applied to the ink ribbon.
3	Fixed a bug that caused Bk images to expand and contract in the transport direction	When printing Bk at low speed in [HIGH QUALITY] mode, image expansion/contraction occurs only in Bk. Elongation Shrinkage When the film take-up diameter increases, the pulse width control duty of the film take-up motor (DM3) becomes insufficient, causing unstable film transport.

		To solve this problem, "HQ Tension Mode" was added. If [HQ Tension Mode] is turned on when this problem occurs, the pulse width control duty of the film take-up motor (DM3) is changed to prevent expansion and contraction of the Bk image in [HIGH QUALITY] mode. Service Mode > Mode Setting > HQ Tension Mode > OFF(default) └ ON
4	Fixed a bug in Film Wind up (19-02)	The decaler unit is not stowed in position after the power-on initialization operation is completed and remains lowered, which may interfere with transfer film transport during secondary transfer, resulting in an error. Change the control so that the decaler unit is stowed in position after the initialization operation is completed to correct the error.

Attached:

1. firmware for PR-C201

- Firmware: PR-C201_59.npr

Reference:

- Part numbers and suffixes are not changed.

- When replacing the printer controller board, be sure to update the firmware to the latest version.

Service Parts: No part number changes or revision progression

No.	New / Old	Product name	Part Name	Part Number	Quantity	compatibility		Fig/Key
						Old Part ↓ New Machine	Old Machine ↑ New Part	
1	Old	PR-C201	CONTROLLER PCB UNIT	4M9-0045-000	1 → 1	↓ -	↑ -	102-9
	New		-	-	-			

Effective channel number:

Product Code	Product Name	Switch-over implementation
2473C001AA	PR-C201	Discontinued
2473C004AA	PR-C201	