

iP4300

SIMPLIFIED SERVICE MANUAL

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QY8-13BA-000

Rev. 00

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Canon Inc.

1. PRODUCT LIST

1-1. Main Units

Product name	Product code		Destination	Production q'ty (for 3 months)	Accessories
Canon Inkjet Printer iP4300	Q30-4210-000	1438B001AA	JPN	194,000	Print head Ink tanks (Japan / Non-Japan) BCI-9BK / PGI-5BK BCI-7eBK / CLI-8BK BCI-7eC / CLI-8C BCI-7eM / CLI-8M BCI-7eY / CLI-8Y CD / DVD tray ^{*1} 8cm CD / DVD adapter ^{*1} Power cord ^{*1} : Not for the US and KR models.
	Q30-4213-000	1438B002AA	US	49,000	
	Q30-4210-000	1438B003AA	CA	340,000	
		1438B004AA	LAM		
		1438B006AA	EUM		
		1438B007AA	EMB		
		1438B008AA	GB		
		1438B009AA	EUM / EMB		
		1438B011AA	AU		
	1438B012AA	ASA	25,000		
	1438B013AA	HK			
	1438B014AA	CN			
		1438B015AA	TW		
	Q30-4213-000	1438B016AA	KR		

1-2. Consumables

Product name	Product code	Destination	Remarks
Canon Ink Tank			
BCI-9BK	0372B001AA	JP	
BCI-7eBK	0364B001AA		
BCI-7eC	0365B001AA		
BCI-7eM	0366B001AA		
BCI-7eY	0367B001AA		
Canon Ink Tank			
PGI-5BK	0628B001AA to 0628B005AA	001: EUR / OCN	
CLI-8BK	0620B001AA to 0620B005AA	002: AMR	
CLI-8C	0621B001AA to 0621B005AA	003: ASA	
CLI-8M	0622B001AA to 0622B005AA	004: W/O BOX	
CLI-8Y	0623B001AA to 0623B005AA	005: AMR S	

1-3. Optional Unit

No optional units.

2. PRODUCT SPECIFICATIONS

2-1. Printer Specifications

Type	Desktop serial color inkjet printer		
Paper feeding method	Auto sheet feed (ASF, cassette, automatic duplex printing, CD / DVD printing *) * Not supported in the US and KR models		
Resolution	9,600 dpi x 2,400 dpi (Max.)		
Throughput (Target value)	Photo ("4x6") *1	PP-101/Standard/Borderless:	Approx. 36 sec.
	Camera Direct*2	4"x6" borderless	Approx.101 sec
	For reference:		
	Bk text (Plain paper/Fine pattern)		
	Max Speed (Custom Setting 5)	:	30ppm
	Standard	:	14.8ppm
	Color (Plain paper/Fine pattern)		
	Max Speed (Custom Setting 5)	:	24ppm
	Standard	:	11.6ppm
	*1: Based on Canon standard pattern. Print speed may vary depending on System configuration, interface, software, document complexity, print mode, page coverage, type of paper used and does not take into account data processing time on host computer.		
	*2: When printing a 6 megapixel image taken by certain Canon digital camera from PictBridge on default settings using Photo Paper Plus Glossy without border. Actual print speed may vary depending on image data, print mode, type of paper used and device that the printer is connected to.		
	Note: Notations for the Americas should be confirmed with the related marketing section of each sales company in the Americas.		
Printing direction	Bidirectional, uni-directional		
Print width	Max. 203.2 mm (216 mm in borderless printing)		
Interface			
Computer	USB 2.0 Hi-Speed		
Camera Direct	PictBridge with a PictBridge-supported digital camera, digital video camera, or camera-equipped mobile phone		
Paper feed			
ASF			
Stacking capacity	Max. 13 mm (Approx. 150 sheets of 64 g/m ² plain paper)		
Paper weight	64 to 105 g/m ² , Canon specialty paper 273 g/m ² at the maximum		
Paper specifications	Plain paper:		A4, A5, B5, Letter, Legal, custom
	Super White Paper	SW-201:	A4, Letter
	High Resolution Paper	HR-101N:	A4, Letter
	Photo Paper Pro	PR-101:	A4, Letter, 4x6, 4x8, 8x10, Wide
	Photo Paper Plus Glossy	PP-101:	A4, Letter, 4x6, 5x7
	Photo Paper Plus Semi-gloss	SG-201/101:	A4, Letter, 4x6, 8x10
	Glossy Photo Paper	GP-401:	A4, Letter, 4x6, Credit Card
		GP-501/502:	A4, Letter, 4x6
	Matte Photo Paper	MP-101:	A4, Letter, 4x6
	Photo Paper Plus Double Sided	PP-101D:	A4, Letter, 5x7
	Photo Stickers	PS-101	
	T-shirt Transfer	TR-301:	A4
	Envelope:		DL-size, COM #10
Cassette			
Stacking capacity	Max. 13 mm (Approx. 150 sheets of 64 g/m ² plain paper)		
Paper weight	64 to 105 g/m ² , Canon specialty paper 273 g/m ² at the maximum		

Paper specifications	Same as the ASF, except that the Legal and Credit Card sizes and Photo Stickers cannot be used in the cassette.				
DVD / CD print Supported media	CD / DVD printable media				
Media size (diameter)	120 mm / 80 mm				
Print operation	Front loading				
Acoustic noise (Target value)	Approx. 34.0 dB (Highest print quality settings: Photo Paper Pro, Custom 1, paper feeding from the ASF)				
Environmental requirements	During operation	Temperature	5C to 35C (41F to 95F)		
		Humidity	10%RH to 90%RH (no condensation)		
	Non operation	Temperature	0C to 40C (32F to 104F)		
		Humidity	5%RH to 95%RH (no condensation)		
Power supply	Power supply voltage	Frequency	Power consumption	Standby	Power-off
	AC 100 to 240 V	50/60 Hz	Approx. 11 W	Approx. 1.0 W	Approx. 0.5 W
External dimensions	With the trays retracted: Approx. 445 (W) x 303 (D) x 160 (H) mm With the trays extended: Approx. 445 (W) x 582 (D) x 338 (H) mm				
Weight	Approx. 6.5 kg, including the print head / ink tanks				
Related standards	Electromagnetic radiance: VCCI, FCC, IC, CE Mark, Taiwan EMC, C-Tick, CCC (EMC), Korea MIC, Gost-R Electrical safety: Electrical Appliance and Material Safety Law (DENAN), UL, C-UL, CB Report, CE Mark, GS, Gost-R, FT, SASO, CCC, SPRING, Korea EK, IRAM (Argentina) Environmental regulations: RoHS (EU), WEEE (EU), Korea Package Recycle Law, Green Point (Germany), Energy Star, Eco Mark, Law on Promoting Green Purchasing				
Serial number location	On the carriage flexible cable holder (visible when the access cover is open)				
Remaining ink amount detection	Available (detection by optical method and dot count, enabled at default)				
Paper type detection	Not available				
Print head alignment	Available (automatic or manual alignment via the printer driver Maintenance tab, or automatic alignment via the Resume/Cancel button in Camera Direct Printing, automatic alignment at default)				

2-2. Product Life

(1) Printer

Specified print volume or the years of use, whichever comes first.

- Print volume: 13,000 pages
 - Black: 5,200 pages (Black 1,500 character pattern)
 - Color: 3,900 pages (7.5% duty per color pattern)
 - 300 pages (A4, photo, borderless printing)
 - 2,700 pages (4 x 6, photo, borderless printing)
 - 900 pages (Postcard, photo, borderless printing)
- 3 years of use

(2) Print head

- Print volume: 29,400 pages

- (3) Ink tank (target value)
 () Estimated Supplemental Yield

Average Yield	PGI-5BK	CLI-8BK	CLI-8C	CLI-8M	CLI-8Y
Color document (ISO/IEC FCD24712)*1	520pages	(5,220)pages	890pages	670pages	700pages
Photo (4" x 6") *2	(3,095)pages	(1,305)pages	387pages	271pages	291pages

*1 Color document: Declared yield value in accordance with ISO/IEC FCD24711.
 Values obtained by continuous printing.

*2 "Photo (4" x 6")": When printing Canon standard patterns on 4" x 6" <Photo Paper Plus Glossy> continuously with the default settings of <Photo Paper Plus Glossy> using Windows XP printer driver in borderless printing mode and Windows XP Photo Printing Wizard. "

Declared yield value determined based on Canon standard method referring to ISO/IEC FCD24712.

Ink yield may vary depending on texts/photos printed, applications software used, print mode and type of paper used.

2-3. Print Head Specifications

Type	Single head with 5 removable ink tanks (each color)
Print head	Pigment-based BK: 512 nozzles, 600 dpi, 30 pl Dye-based BK / C / M / Y: 512 x 6 nozzles, 1,200 dpi, 1 pl / 5 pl (C / M), 5 pl (BK / Y) (Two 512 nozzles for C and M respectively)
Ink color	Pigment-based black Dye-based black, cyan, magenta, yellow
Ink tank	Japan: BCI-9BK (pigment-based), BCI-7eBK / C / M / Y (dye-based) Others: PGI-5BK (pigment-based), CLI-8BK / C / M / Y (dye-based)
Weight (Net)	Print head: Approx. 60 g
Supply method	As a service part (not including ink tanks)
Part number	QY6-0061-000

2-4. Supported Ink Tanks

Model	Destination	Pigment-based ink		Dye-based ink							
		BCI-9BK	PGI-5BK	BCI-7eBK	BCI-7eC	BCI-7eM	BCI-7eY	CLI-8BK	CLI-8C	CLI-8M	CLI-8Y
PIXUS iP4300	Japan	O	X	O	O	O	O	X	X	X	X
PIXMA iP4300	Others	X	O	X	X	X	X	O	O	O	O

O: Usable
 X: Not usable

Note: The ink tanks for the Japanese model are not compatible with those for the other models. Be sure to use the appropriate ink tanks in servicing.

3. ERROR DISPLAY

Errors are indicated by the LED, and warnings are displayed on the monitor of the computer connected to the printer.

3-1. Operator Call Errors (Alarm LED Blinking in Orange)

Alarm LED blinking in orange	Error [Error code]	Solution	Remarks
2 times	No paper. (ASF) [1000]	Set the paper in the ASF, and press the Resume/Cancel button.	
	No CD / DVD tray. [1001] ^{*1}	Set the CD / DVD tray, and press the Resume/Cancel button.	
	No paper in the cassette. [1003]	Set the paper in the cassette, and press the Resume/Cancel button.	
	No CD / DVD. [1002] ^{*1}	Set a CD or DVD in the CD / DVD tray (which is ejected at error occurrence), and insert the CD / DVD tray in the proper position. Then, press the Resume/Cancel button.	
3 times	Paper jam. [1300]	Remove the jammed paper, and press the Resume/Cancel button.	Error in paper feeding from the ASF.
	Paper jam in the rear guide. [1303]		Error in the duplexing transport unit.
	Paper jam in the under guide. [1304]		Error in paper feeding from the cassette.
	Front door close error. [1250]	Open the paper output tray.	The error is indicated if the paper output tray is closed at start of a print job, or while a print job is being performed.
4 times	No ink. [1600]	Replace the empty ink tank(s), or press the Resume/Cancel button.	Pressing the Resume/Cancel button will exit the error without ink tank replacement, however, ink may run out during printing.
	Ink tank not installed. [1660]	Install the applicable ink tank(s) properly, and confirm that the LED's of all the ink tanks light red.	
5 times	The print head is not installed. [1401]	Install the print head properly.	
	Print head temperature sensor error. [1403]		
	Faulty EEPROM data of the print head. [1405]		
	Print head hardware error. [1682]		

(Operator Call Errors cont'd)

Alarm LED blinking in orange	Error [Error code]	Solution	Remarks
6 times	Inner cover open. [1841] ^{*2}	Close the inner cover, and press the Resume/Cancel button.	
	Inner cover open during printing on paper. [1846] ^{*2}	Close the inner cover, and press the Resume/Cancel button.	
	Inner cover open during printing on paper (print continuable). [1851] ^{*1}	Close the inner cover, and press the Resume/Cancel button.	
	Inner cover open during printing on paper (print NOT continuable). [1856] ^{*1}	Close the inner cover, and press the Resume/Cancel button to clear the error. The paper being printed at error occurrence will be ejected without printing the remaining data for the ejected paper, then printing will resume from the next page.	
	Inner cover closed during CD / DVD printing (print continuable). [1850] ^{*1}	Open the inner cover which functions as the CD / DVD tray feeder, set the CD / DVD tray in the feeder, and press the Resume/Cancel button.	
	Inner cover closed during CD / DVD printing (print NOT continuable). [1855] ^{*1}	Open the inner cover, and press the Resume/Cancel button to clear the error. The CD or DVD being printed at error occurrence will be ejected without printing the remaining data for the ejected CD or DVD, then the next print job will be done.	
7 times	Multiple ink tanks of the same color installed. [1681]	Replace the wrong ink tank(s) with the correct one(s).	
	Ink tank in a wrong position. [1680]	Install the ink tank(s) in the correct position.	
8 times	Warning: The ink absorber becomes almost full. [1700 / 1701 (Japan)]	Pressing the Resume/Cancel button will exit the error, and enable printing.	The service call error, indicating the ink absorber is full, is likely to occur soon.
9 times	The connected digital camera or digital video camera does not support Camera Direct Printing. [2001]	Remove the cable between the camera and the printer.	
10 times	Automatic duplex printing cannot be performed. [1310]	Press the Resume/Cancel button to eject the paper being used at error occurrence. Printing will resume from on the front side of the next page.	Data which was to be printed on the back side of paper at error occurrence is skipped (not printed).
11 times	Failed in automatic print head alignment. [2500]	Press the Resume/Cancel button. - If paper is being fed at error occurrence, the error is indicated after the paper is ejected. - If the error occurs, the print head alignment values are not changed. - After exit from the error by the Resume/Cancel button, the automatic print head alignment will not be re-done.	The error is indicated when the pattern is not printed due to no ink or non-ejection of ink, when the sensor's AD value is incorrect, or when the paper is shorter than the specified length.

(Operator Call Errors cont'd)

Alarm LED blinking in orange	Error [Error code]	Solution	Remarks
13 times	The remaining ink amount unknown. [1683]	Replace the applicable ink tank with a new one, and close the top cover. Printing with a once-empty ink tank can damage the printer. To continue printing without replacing the ink tank(s), press the Resume/Cancel button for 5 sec. or longer to disable the function to detect the remaining ink amount. After the operation, it is recorded in the printer that the function to detect the remaining ink amount was disabled.	The error is indicated when raw ink is detected but the dot count number exceeds the threshold of complete exhaustion of ink.
14 times	Ink tank not recognized. [1684]	A non-supported ink tank is installed (the ink tank LED is turned off). Install the supported ink tanks.	
15 times	Ink tank not recognized. [1410 to 1414]	An error occurred in an ink tank (the ink tank LED is turned off). Replace the ink tank(s). Each error code corresponds to each ink tank, from left (the opposite side of the home position) to right, respectively.	Ink tank positioning (from left to right): BK, PigBK, Y, M, C
16 times	No ink. [1688]	Replace the empty ink tank(s), and close the top cover. Printing with an empty ink tank can damage the printer. To continue printing without replacing the ink tank(s), press the Resume/Cancel button for 5 sec. or longer to disable the function to detect the remaining ink amount. After the operation, it is recorded in the printer that the function to detect the remaining ink amount was disabled.	The error is indicated when "no raw ink" is detected and when the dot count number exceeds the threshold of complete exhaustion of ink.

*1: Only for models supporting CD / DVD printing

*2: Only for models not supporting CD / DVD printing

3-2. Service Call Errors (by Cyclic Blinking in Orange (Alarm LED) and Green (Power LED), or Alarm LED Lit in Orange)

Cycles of blinking in orange and green	Error [Error code]	Solution (Replacement of listed parts, which are likely to be faulty)
2 times	Carriage error [5100]	
3 times	Line feed error [6000]	
4 times	Purge cam sensor error [5C00]	
5 times	ASF (cam) sensor error [5700]	
6 times	Internal temperature error [5400]	
7 times	Ink absorber full [5B00 / 5B01 (Japan)]	
8 times	Print head temperature rise error [5200]	- Print head (QY6-0061)
9 times	EEPROM / NVRAM error [6800]	
10 times	VH monitor error [B200]	- Print head (QY6-0061)
11 times	Carriage lift mechanism error [5110]	
12 times	AP position error [6A00]	
13 times	Paper feed position error [6B00]	
14 times	Paper feed cam sensor error [6B10]	
15 times	USB Host VBUS overcurrent [9000]	
16 times	Pump roller sensor error [5C20]	
19 times	Ink tank position sensor error [6502]	
20 times	Other hardware error [6500]	
Power LED turned off, Alarm LED lit	ROM error	
Power LED lit, Alarm LED lit	RAM error	

*1: Before replacement of the logic board ass'y, check the ink absorber counter value (by service test print or EEPROM information print). If the counter value is 7% or more, also replace the ink absorber kit (QY5-0176) when replacing the logic board ass'y. See 5. SERVICE MODE, for details.

3-3. Warnings

(1) Printer (no LED indications)

Displayed warning	Remarks
Low ink	Status indication only.
Print head temperature rise	If the print head temperature is high when the access cover is opened, the warning is displayed ^{*1} . When the print head temperature falls, the warning is released.
Protection of excess rise of the print head temperature	If the print head temperature exceeds the specified limit, a Wait is inserted during printing.

*1: If the warning is displayed, the carriage does not move to the ink tank replacement position when the access cover is opened.

5. SERVICE MODE

Function	Procedures	Remarks
Service test print -Model name -Destination -ROM version -USB serial number -Ink absorber counter value (ink amount in the ink absorber) -CD / DVD sensor correction value -Ink system function check result -CD / DVD sensor correction result	See "Service mode operation procedures" below.	Set a sheet of A4 or letter size paper in the ASF. For print sample, see APPENDIX 1, SERVICE TEST PRINT.
EEPROM initialization	See "Service mode operation procedures" below.	The following items are NOT initialized, and the shipment arrival flag is not on: -USB serial number -Destination settings -Ink absorber counter value -CD / DVD correction value -LF correction value -Left margin correction value -Record of disabling the function to detect the remaining ink amount
Ink absorber counter reset	See "Service mode operation procedures" below.	If the ink absorber counter value is 7% or more, replace the ink absorber kit.
LF correction	See "Service mode operation procedures" below.	
Left margin correction	See "Service mode operation procedures" below.	
Destination settings	See "Service mode operation procedures" below.	

Note: At the end of the service mode, press the Power button. The paper lifting plate of the sheet feed unit will be raised.

<Service mode operation procedures>

- 1) With the printer power turned off, while pressing the Resume/Cancel button, press and hold the Power button. (DO NOT release the buttons. The Power LED lights in green to indicate that a function is selectable.)
- 2) While holding the Power button, release the Resume/Cancel button. (DO NOT release the Power button.)
- 3) While holding the Power button, press the Resume/Cancel button 2 times, and then release both the Power and Resume/Cancel buttons. (Each time the Resume/Cancel button is pressed, the Alarm and Power LEDs light alternately, Alarm in orange and Power in green, starting with Alarm LED.)
- 4) When the Power LED lights in green, press the Resume/Cancel button the specified number of time(s) according to the function listed in the table below. (Each time the Resume/Cancel button is pressed, the Alarm and Power LEDs light alternately, Alarm in orange and Power in green, starting with Alarm LED.)

Time(s)	LED indication	Function	Remarks
0 times	Green (Power)	Power off	When the print head is not installed, the carriage returns and locks in the home position capped.
1 time	Orange (Alarm)	Service test print	See APPENDIX 1, SERVICE TEST PRINT.
2 times	Green (Power)	EEPROM information print	See APPENDIX 2, EEPROM INFORMATION PRINT.
3 times	Orange (Alarm)	EEPROM initialization	
4 times	Green (Power)	Ink absorber counter resetting	
5 times	Orange (Alarm)	Destination settings	After entering the destination settings mode, press the Resume/Cancel button the specified number of time(s) to select the destination.
6 times	Green (Power)	Print head deep cleaning	(Cleaning of both black and color)
7 times	Orange (Alarm)	CD / DVD check pattern print	Not used in servicing.
8 times	Green (Power)	CD / DVD print position correction (horizontal: X direction)	Not used in servicing.
9 times	Orange (Alarm)	CD / DVD print position correction (vertical: Y direction)	Not used in servicing.
10 times	Green (Power)	LF correction	
11 times	Orange (Alarm)	Left margin correction	
12 to 15 times	Green / Orange (Power / Alarm)	Return to the menu selection	
16 times or more	Orange (Alarm)	Return to the menu selection	

Note: If the Resume/Cancel button is pressed 16 or more times, the Alarm LED lights steadily without any changes.

<Destination settings procedures>

In the destination settings mode, press the Resume/Cancel button the specified number of time(s) according to the destination listed in the table below, and press the Power button.

Time(s)	LED indication	Destination	CD / DVD print
0 times	Green (Power)	No change of the destination	
1 time	Orange (Alarm)	Japan	Supported
2 times	Green (Power)	Korea	Not supported
3 times	Orange (Alarm)	US	Not supported
4 times	Green (Power)	Europe	Supported
5 times	Orange (Alarm)	Australia	Supported
6 times	Green (Power)	Asia	Supported
7 times	Orange (Alarm)	China	Supported
8 times	Green (Power)	Taiwan	Supported
9 times	Orange (Alarm)	Canada / LAM	Supported
10 times or more	Green (Power)	Return to the menu selection	

Note: After setting the destination, confirm the model name in service test print or EEPROM information print. (See APPENDIX 1, SERVICE TEST PRINT or APPENDIX 2, EEPROM INFORMATION PRINT.)

<LF correction procedures>

After replacement of the feed roller ass'y or logic board ass'y in repair servicing or in refurbishment operation, adjust the line feeding.

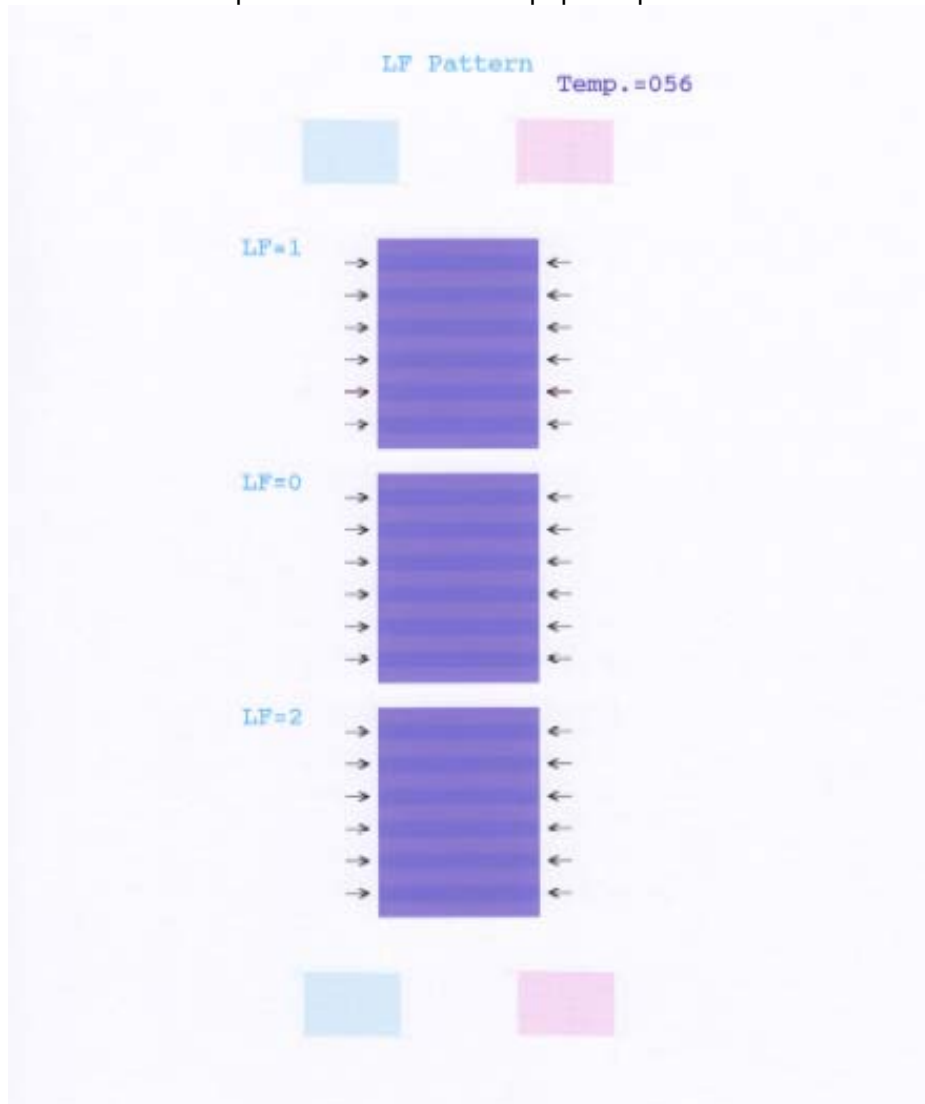
Details: Print the LF correction pattern on a sheet of paper. Select the Pattern No. (0 to 2) in which streaks or lines are the least noticeable, press the Resume/Cancel button the same number of time(s) as the selected Pattern No., then press the Power button.

- 1) In the LF correction mode, press the Resume/Cancel button the specified number of times according to the paper to be used in LF correction listed in the table below, then press the Power button. (Set a sheet of selected paper in the ASF.)

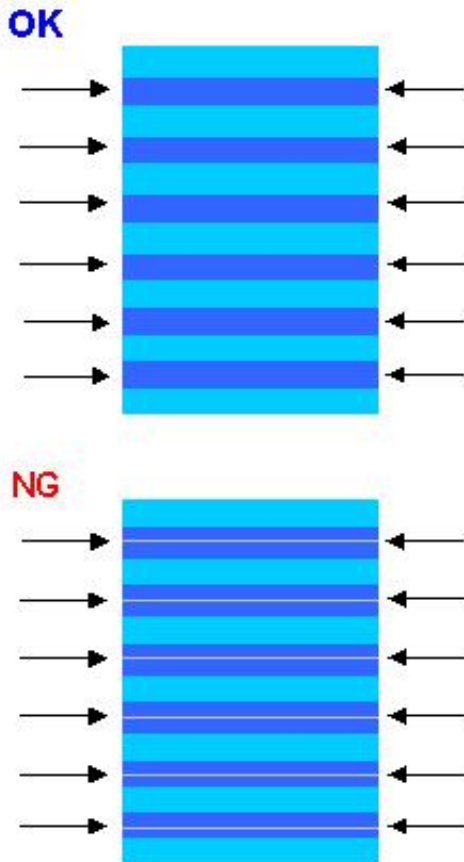
Time(s)	Paper
1 time	HR-101
2 times	GF-500, Office Planner
3 times	HP BrightWhite
4 times	Canon Extra, STEINBEIS

- Note:
- Each time the Resume/Cancel button is pressed, the Alarm and Power LEDs light alternately, Alarm in orange and Power in green.
 - If the Resume/Cancel button is NOT pressed, and only the Power button is pressed, the printer remains in the LF correction mode.
 - If the Resume/Cancel button is pressed 5 times or more, then the Power button is pressed, the printer returns to the service mode menu selection.

- 2) The LF correction pattern for the selected paper is printed.



- 3) In the printout, select the Pattern No. in which streaks or lines are the least noticeable, press the Resume/Cancel button the same number of time(s) as the selected Pattern No., then press the Power button.



3-1) LF correction value

Selected pattern number	Number of times the Resume/Cancel button is pressed
1	1 time
0	0 times
2	2 times

Note: - Each time the Resume/Cancel button is pressed, the Alarm and Power LEDs light alternately, Alarm in orange and Power in green.
 - If the Resume/Cancel button is pressed 3 times or more, then the Power button is pressed, the printer returns to the service mode menu selection.

- 3-2) The selected LF correction value is written to the EEPROM, and the printer returns to the service mode menu selection.

<Left margin correction procedures>

Adjust the left margin for duplex printing or printing from the cassette, in the same way as performed at the production site.

1) Duplex printing from the ASF and cassette

In the left margin correction mode, press the Resume/Cancel button 1 time, then press the Power button 1 time. Duplex printing is performed from the ASF and cassette.

Number of times the Resume/Cancel button is pressed (L)	Operation
0 times	No operation
1 time	Duplex printing from the ASF and cassette
2 times or more	Return to the service mode menu selection (no writing to the EEPROM)

From each paper source (ASF and cassette), 2 sheets of paper are ejected. The first sheet is blank, and the left margin correction pattern is printed on the second sheet.

Printing sequence: For detail, see the flowcharts below.

- i) A sheet of paper feeds from the ASF, and ejected blank (single-sided printing).
- ii) A sheet of paper feeds from the ASF. Nothing is printed on the front side, and the pattern is printed on the back side (duplex printing).
- iii) A sheet of paper feeds from the cassette, and ejected blank (single-sided printing).
- iv) A sheet of paper feeds from the cassette. The pattern is printed on both sides of paper (duplex printing).

A total of 4 sheets are ejected.

After this, set the correction value to the EEPROM in the steps below.

2) Selection of the parameter mode for left margin correction

Press the Resume/Cancel button the specified number of time(s) according to the parameter mode listed in the table below, then press the Power button.

Each time the Resume/Cancel button is pressed, the Alarm and Power LEDs light alternately, Alarm in orange and Power in green.

Number of times the Resume/Cancel button is pressed (M)	Parameter mode
0 times	Duplex printing from the ASF and cassette
1 time	Back side of paper fed from the ASF
2 times	Front side of paper fed from the cassette
3 times	Back side of paper fed from the cassette
4 times or more	Return to the service mode menu selection (after writing to the EEPROM)

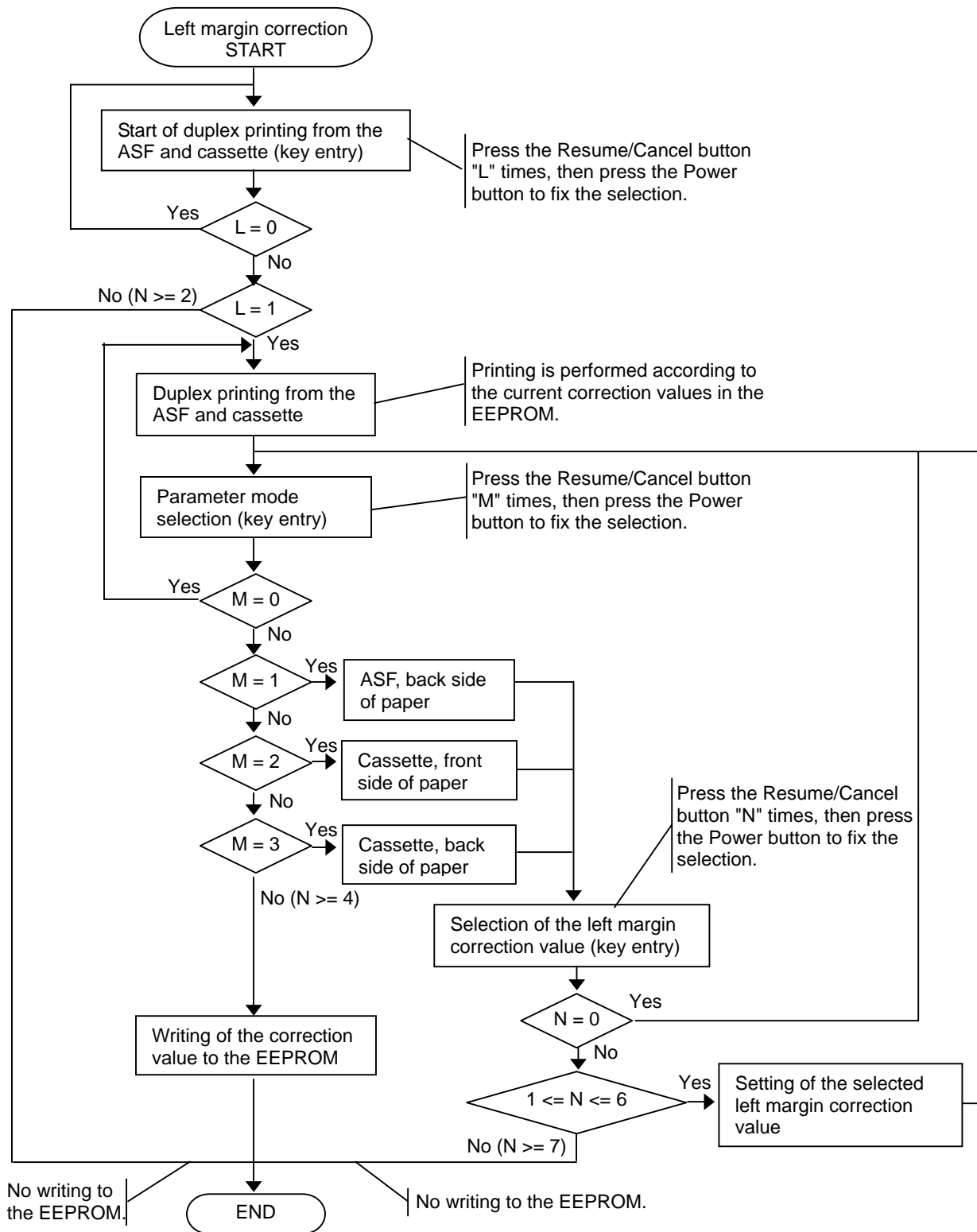
3) Setting of the left margin correction value ("+" means to increase the left margin)

Press the Resume/Cancel button the specified number of time(s) according to the correction value listed in the table below, then press the Power button.

Number of times the Resume/Cancel button is pressed (N)	Left margin correction value
0 times	Return to the parameter mode selection for left margin correction
1 time	+1 pitch
2 times	+2 pitches
3 times	+3 pitches
4 times	-1 pitch
5 times	-2 pitches
6 times	-3 pitches
7 times or more	Return to the service mode menu selection (no writing to the EEPROM)

After the value is set, the printer returns to the parameter mode selection. Repeat steps 2) and 3) to adjust the left margin in each parameter mode: "back side of paper fed from the ASF," "front side of paper fed from the cassette," and "back side of paper fed from the cassette."

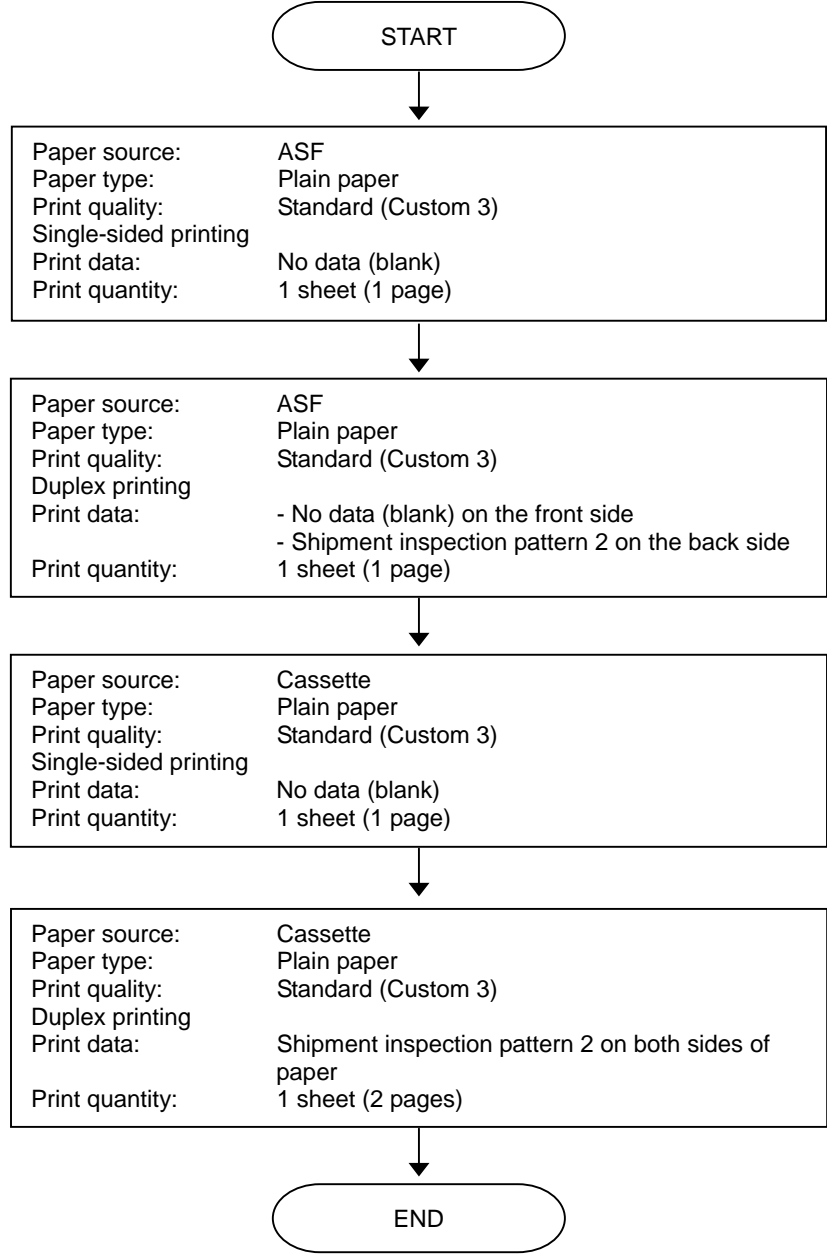
4) After the left margin correction in all the parameter modes is completed, press the Resume/Cancel button 4 times or more in the parameter mode selection, then press the Power button to return to the service mode menu selection.



Key entry (number of times the button is pressed):

- 0 times:
 - The previous entry was wrong. Return to the previous step.
 - Specified number:
 - Set the specified value.
 - Over the specified number:
 - Exit the left margin correction mode.
- Before writing to the EEPROM, values in the RAM area can be overwritten by using key entry.

Duplex printing from the ASF and cassette



6. EXTERNAL VIEW / PARTS LIST

Service Parts	Available Parts	<p><Japan> Parts specified in Service Plan, Parts Catalog, and Service Information bulletins Parts for refurbishment*¹ and electrical custom parts listed in Service Plan are available only in 2 order windows.</p> <p><Asia> Parts specified in Service Plan and in the Simplified Service Manual*², and parts for refurbishment*¹</p> <p><Others> Parts specified in Service Plan, and parts for refurbishment*¹</p> <p>*1: Parts for refurbishment are listed in Service Plan. They can be ordered at any time during production.</p> <p>*2: For regions other than Japan and Asia, parts for Asia specified in the Simplified Service Manual can be ordered 2 times, at the start and end of production, when necessary.</p>
	Supply Period	<p><Japan> During production, and for 5 years after discontinuance of production. This is not applicable to the refurbishment parts and electrical custom parts.</p> <p><Others> During production, and for 2 years after discontinuance of production (except the printer head, whose supply period is 5 years after discontinuance). This is not applicable to the refurbishment parts.</p>
	Final Order	<p><Japan> Service parts can be ordered until an inquiry of final order (YFI) is made by Canon Inc. to CMJ in the 5th year after discontinuance of production.</p> <p><Others> Service parts can be ordered until an inquiry of final order (YFI) is made by Canon Inc. to each sales company at discontinuance of production. (For the print head, the YFI will be made in the 5th year after discontinuance of production.)</p>
	Stock Date	<p>SENSO Parts, Starter Parts: From August 25, 2006</p> <p>Other parts: From November 27, 2006</p>
	Repair by Canon Inc.	Not available. (No repair is conducted by Canon Inc.)

FIGURE 1 PRINTER & PRINT HEAD



FIGURE & KEY No.		PART NUMBER	RANK	QTY	DESCRIPTION	REMARKS
1-	1	QM2-3892-000		1	CASSETTE UNIT	
	2	QC2-1925-000		1	COVER, CASSETTE	
	3	QA4-1117-000		1	TRAY, CD SUB	W/ CDR PRINTING
	4	QL2-1449-000		1	CDR TRAY ASS'Y	W/ CDR PRINTING
	5	QY6-0061-000		1	PRINT HEAD	
	6	QK1-0278-000		1	CORD, POWER	100V-120V(US, CA)
		QK1-0279-000		1	CORD, POWER	220V-240V(EUM, EMB, ASA)
		QK1-0286-000		1	CORD, POWER	100V-120V(JP)
		QK1-1061-000		1	CORD, POWER	220V-240V(AU)
		QK1-1903-000		1	CORD, POWER	120V-240V(LAM)
		QK1-2017-000		1	CORD, POWER	100V-120V(TW)
		WT3-5156-000		1	CORD, POWER	220V-240V(GB, HK)
		WT3-5160-000		1	CORD, POWER	220V-240V(KR)
		WT3-5182-000		1	CORD, POWER	220V-240V(CN)

FIGURE 11 OPTION & CONSUMABLES

1
(PIXUS iP4300)



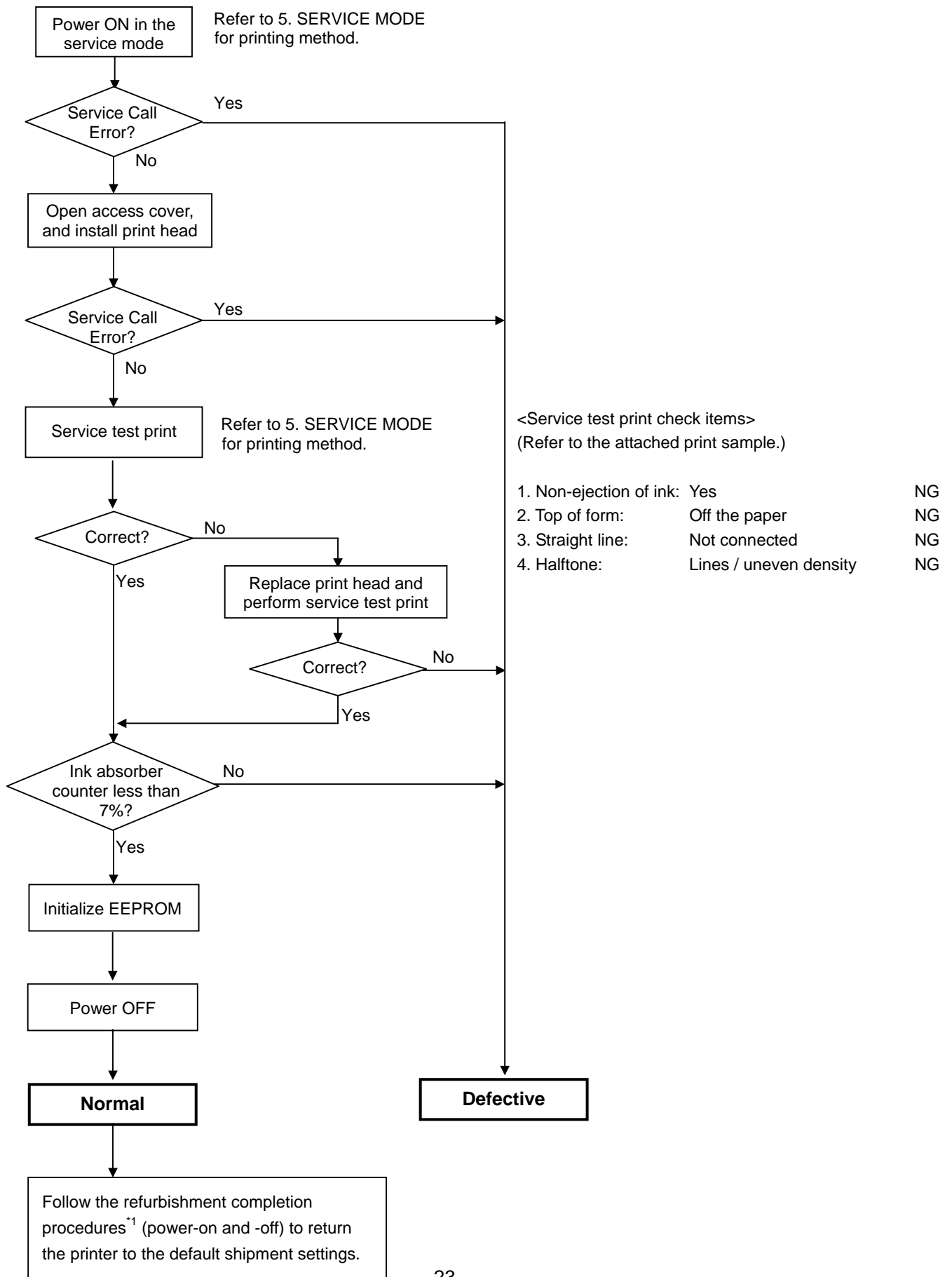
2
(PIXMA iP4300)



FIGURE & KEY No.		PART NUMBER	RANK	QTY	DESCRIPTION	REMARKS
11 -	1	NPN		1	BLACK INK TANK BCI-9BK	CONSUMABLES
		NPN		1	BLACK INK TANK BCI-7eBK	CONSUMABLES
		NPN		1	YELLOW INK TANK BCI7eY	CONSUMABLES
		NPN		1	MAGENTA INK TANK BCI-7eM	CONSUMABLES
		NPN		1	CYAN INK TANK BCI-7eC	CONSUMABLES
	2	NPN		1	BLACK INK TANK PGI-5BK	CONSUMABLES
		NPN		1	BLACK INK TANK CLI-8BK	CONSUMABLES
		NPN		1	YELLOW INK TANK CLI-8Y	CONSUMABLES
		NPN		1	MAGENTA INK TANK CLI-8M	CONSUMABLES
		NPN		1	CYAN INK TANK CLI-8C	CONSUMABLES

7. TROUBLESHOOTING FLOWCHART

7-1. Printer Main Unit Troubleshooting Flowchart (how to confirm printer operation at refurbishment)



*1: Refurbishment completion procedures:

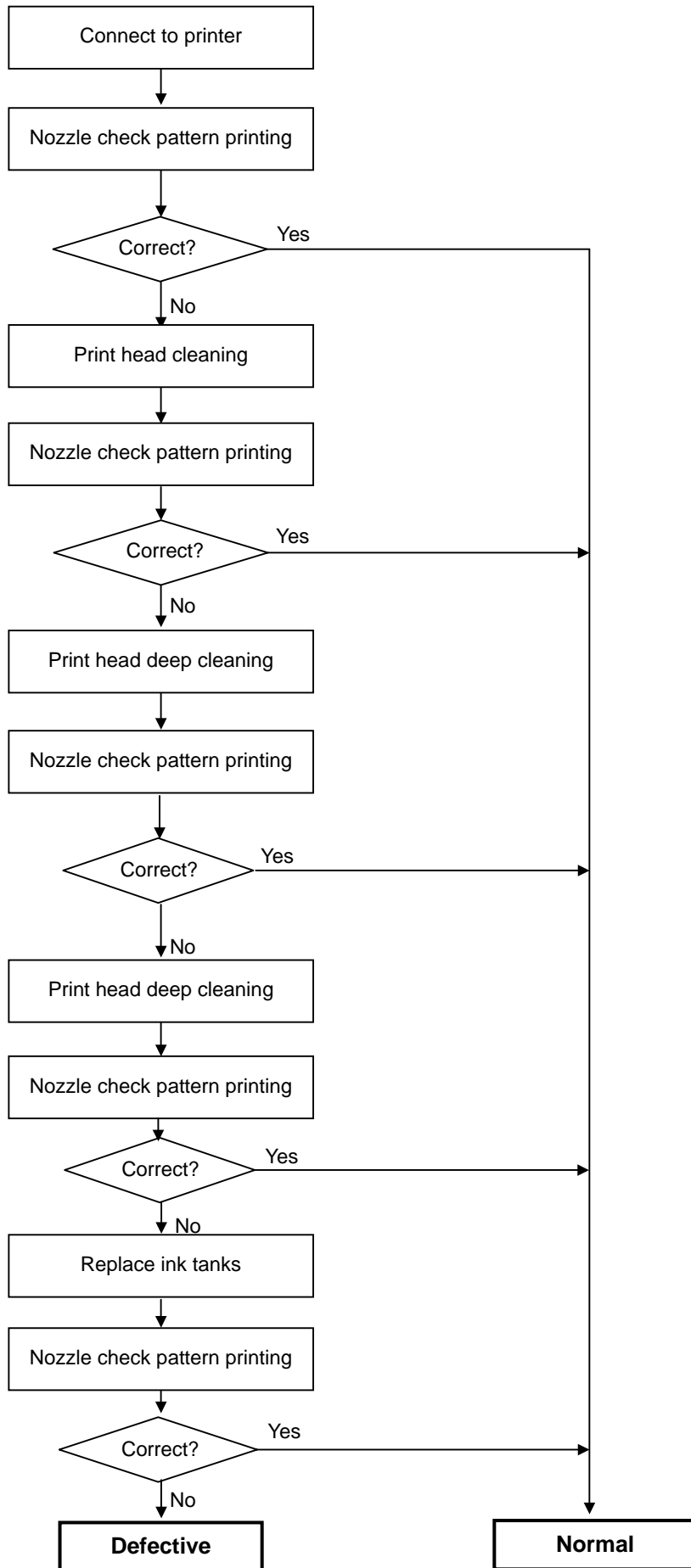
At end of refurbishment of normal printers, set the printer to the default shipment conditions (with the carriage locked in the home position, and the paper lifting plate in the raised position), following the steps below.

- (1) Install the print head, and while pressing and holding the Power button, connect the AC plug.
- (2) After the Power LED lights in green, with the Power button still pressed, press and release the Resume/Cancel button 2 times, and release the Power button.

Resume/Cancel button pressing	Alarm LED	Power LED
First time	Lights in orange.	Turns off.
Second time	Turns off.	Lights in green.

- (3) Open the front door and access cover.
The carriage moves to the print head replacement position. (The Power LED blinks in green.)
- (4) Remove the print head. (The Power LED blinks in green.)
- (5) Press the Power button. (The Power LED lights in green.)
- (6) Close the front door. (The Power LED blinks in green, then turns off.)
- (7) Close the access cover.
- (8) Remove the power cord.
- (9) Pack the printer.

7-2. Print Head Troubleshooting Flowchart (print head operation confirmation)



8. SPECIAL NOTES ON SERVICING

This section describes the procedures for transporting the printer for returning after repair, etc.

- 1) In the service mode, press the Power button to finish the mode, and confirm that the paper lifting plate of the sheet feed unit is raised.
- 2) Keep the print head and ink tanks installed in the carriage. (See Caution (i) below.)
- 3) Turn off the printer to securely lock the carriage in the home position. (When the printer is turned off, the carriage is automatically locked in place.) (See Caution (ii) below.)

Caution: (i) If the print head is removed from the printer and left alone by itself, ink (especially the pigment black ink) is likely to dry. For this reason, keep the print head installed in the printer even during transportation.

- (ii) Securely lock the carriage in the home position, to prevent the carriage from moving and applying stress to the carriage flexible cable, or causing ink leakage, during transportation.

Memo: If the print head must be removed from the printer and transported alone, perform the following:

- a) Attach the protective cap (used when the packing was opened) to the print head (to protect the print head face from damage due to shocks).

9. PRODUCT TECHNICAL INFORMATION

9-1. FAQ (Problems specific to the iP4300 and corrective actions)

No.	Rank	Function	Phenomenon	Condition	Cause	Corrective action	Possible call or complaint
1	C	Paper feeding	Paper feeding problems - Jam - Skewed paper feeding	- Low temperature and low humidity environment - Paper feeding from the cassette - Round-trip postcard	Due to curl of a round-trip postcard in the low temperature and low humidity environment, the paper return tab of the U-turn path opposite to the home position may not completely return to the original position before the postcard is picked up. In this way, the postcard is skewed at the home position side, resulting in skewed paper feeding or jam.	- Eliminate the curl of the round-trip postcard. - Set the round-trip postcard in the ASF.	- Paper jams. - Paper feeds at an angle.
2	C	Print results	Skewed paper feeding (at the level of +/- 1%)	- Paper feeding from the ASF - Credit Card size	Since coaxial tolerance between the pinch roller and the LF roller, which determines the paper feed alignment, is 0.2mm, skewed paper feeding can occur. However, according to the field data of current models, the skewness level caused by the coaxial tolerance of 0.2mm is within the criteria of +/- 1%, thus the phenomenon is left as is.	- Align the paper guide to the paper edge tighter than usual.	- Paper feeds at an angle. - A margin appears on printouts.
3	A	Print results	Soiling on the back side of paper (lines or streaks parallel to the paper feed direction)	- After continuous borderless printing of small sized paper (such as 4 x 6), when a larger sized paper (such as A4) is printed. - With Photo Paper Plus Double Sided or postcards, the phenomenon is likely to be noticeable and to be complained of by users, as printing is performed on both sides of such paper.	In borderless printing, printing is performed to the size slightly larger than the paper size, and ink off the paper is absorbed by the platen's ink absorber. Absorbed ink may attach to the platen rib(s) after several dozen sheets are printed, causing soiling at the leading edge of paper or on the back side of paper.	1. Perform Bottom plate cleaning (from the printer driver) up to 3 times ^{*1} . 2. If soiling on the paper still remains after 3 times of Bottom plate cleaning, wipe the platen rib(s) and their surroundings with a cotton swab.	- Paper gets smeared. - The back side of paper gets smeared.

(9-1. FAQ cont'd)

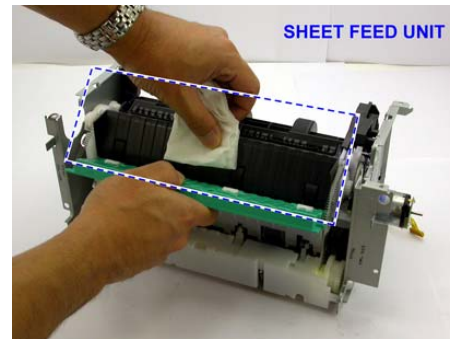
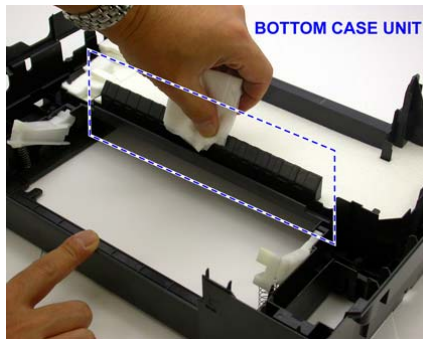
No.	Rank	Function	Phenomenon	Condition	Cause	Corrective action	Possible call or complaint
4	B	Print results	Soiling on paper in automatic duplex printing (lines or streaks perpendicular to the paper feed direction)	- Automatic duplex printing (Photo Paper Plus Double Sided, postcards, plain paper)	On the rib(s) inside the sheet feed unit used for duplex printing, ink mist may accumulate, smearing paper.	<p>Temporary operational solution: Cancel automatic duplex printing, and manually print each side of paper.</p> <p>Cleaning by user: 1. Perform Bottom plate cleaning (from the printer driver) up to 3 times*1. 2. If soiling on the paper still remains after 3 times of Bottom plate cleaning, wipe the platen rib(s) and their surroundings with a cotton swab. If the phenomenon persists after conducting 1 and 2, servicing is required.</p> <p>Service: Wipe any soiling or dirt off from the sheet feed unit and the bottom case unit ribs².</p>	- Paper gets smeared. - The back side of paper gets smeared. - Even after Bottom plate cleaning was performed, and the platen ribs were cleaned with cotton swab, paper gets smeared.
5	C	Print results	Scratches on paper	- PP-101D, PP-101, PR-101, SG-101, etc. - Paper feeding from the cassette	Scratches on the PF return lever due to paper feeding from the cassette, and duplex printing path.	-Change the paper feeding method from the cassette to the auto sheet feeder. -If automatic duplex printing is performed, cancel it, and, by setting only a single sheet of paper in the auto sheet feeder, manually print each side of paper.	- Paper is scratched. - Marks appear on printed paper.
				- PP-101D, PP-101, PR-101, SG-101, etc. - Paper feeding from the ASF - Multiple number of sheets loaded	When multiple sheets of paper are set, the back side of paper being picked up scratches the front side of paper beneath (especially where the paper feed rollers contact when picking up the paper).	Set only a single sheet of paper in the auto sheet feeder.	

(9-1. FAQ cont'd)

No.	Rank	Function	Phenomenon	Condition	Cause	Corrective action	Possible call or complaint
6	C	Print results	Soiling on paper	The printer has been used for a long period of time with the ASF cover closed before printing is performed using the ASF.	Due to ink mist attached to the ASF sub-pick-up rollers. If printing is done from the cassette with the ASF cover closed, ink mist is kept inside the printer, attaching to the ASF sub-pick-up rollers. Since the sub-rollers usually do not contact the paper, ink mist can easily accumulate, especially during printing on small-sized paper which never contacts the sub-rollers.	Clean the ASF sub-rollers (see *3 for details.)	
7	B	Print results	- Skewed paper feeding	- SG-101 - Paper feeding from the ASF - 10 sheets (max.) set in the ASF	When 10 sheets of paper are set in the ASF, and if they warp significantly, the warping portions of paper get over the cover guide, not being aligned along the guide properly.	- Straighten the paper. - Set 5 or less sheets of paper in the ASF.	- Paper feeds at an angle. - A margin appears on printouts.

*1: Change the paper in each Bottom plate cleaning. The cleaning can end when paper does not get any soiling.

*2: Locations to clean in servicing when soiling on paper in automatic duplex printing persists:

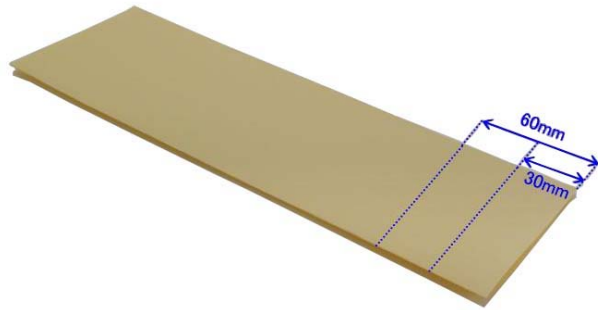


*3: How to prepare and set the ASF sub-roller cleaning sheet:

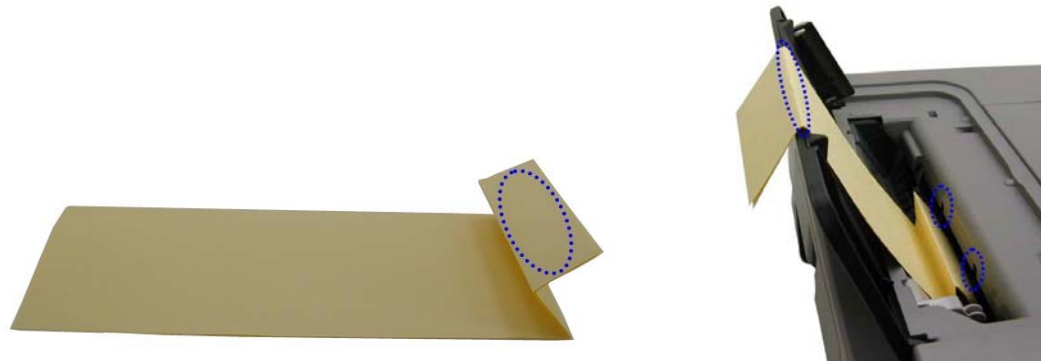
- 1) Fold a sheet of plain paper lengthwise in half.



2) Fold the paper at approx. 60 mm from the end, and fold the folded end in half backward, as shown below.



3) Moisten the folded end portion (indicated by the blue circle in the figure below) using a wipe, and set the paper in the ASF so that the moistened edge of the paper contacts the 2 sub-rollers. Then, fold the other end of the paper along the ASF cover edge to hook the paper to the ASF cover, as shown below.



4) Press and hold the Resume/Cancel button until the Power LED blinks 3 times, then release the button to perform the paper feed roller cleaning.

- Rank:
- A: The symptom is likely to occur frequently. (Caution required)
 - B: The symptom may occur under certain conditions, but likeliness is assumed very low in practical usage.
 - C: The symptom is unlikely to be recognized by the user, and no practical issues are assumed.

9-2. New Technologies

(1) Print speed

By adopting longer nozzles, higher print speed has been achieved.

Photo ("4x6") *1	PP-101/Standard/Borderless:	Approx. 36 sec.
Camera Direct*2	4"x6" borderless	Approx.101 sec

For reference:

Bk text (Plain paper/Fine pattern)

Max Speed (Custom Setting 5)	: 30ppm
Standard	: 14.8ppm

Color (Plain paper/Fine pattern)

Max Speed (Custom Setting 5)	: 24ppm
Standard	: 11.6ppm

- *1: Based on Canon standard pattern. Print speed may vary depending on System configuration, interface, software, document complexity, print mode, page coverage, type of paper used and does not take into account data processing time on host computer.
- *2: When printing a 6 megapixel image taken by certain Canon digital camera from PictBridge on default settings using Photo Paper Plus Glossy without border. Actual print speed may vary depending on image data, print mode, type of paper used and device that the printer is connected to.
- Note: Notations for the Americas should be confirmed with the related marketing section of each sales company in the Americas.

(2) Design

With the silver frame holding the main body from the bottom, the iP4300 wears a stately look in a fresh design.

The square form makes the printer look more compact and shorter in height.

(3) DVD / CD print function supported in Canada and Latin models

DVD / CD print function is now available in the CA and LAM models as well as other models (except the US and KR ones).

(4) Remaining ink amount indication sequence in 2006 products

In previous models, indication of the remaining ink amount differs between the individual ink tank system and the FINE cartridge system.

In the 2006 models, the unified specifications have been adopted.

Major changes from the 2005 models:

- In Direct printing, printing will not be suspended at "Low Ink" indication. (Printing will start without a click by a user at the "Low Ink" message.)

- The remaining ink status will be indicated by the following 4 levels:

Low: No raw ink is detected by the optical method.

(From this point, the remaining ink amount will be determined by the dot count.)

Out: No ink remains according to the dot count.

A warning will be displayed to indicate that ink may have run out.

Empty: No raw ink is detected by the optical method, and the dot count value exceeds the threshold of complete exhaustion of ink.

A warning will be displayed to indicate that ink has run out.

By pressing and holding the Resume/Cancel button for 5 seconds or longer, the function to detect the remaining ink amount can be disabled.

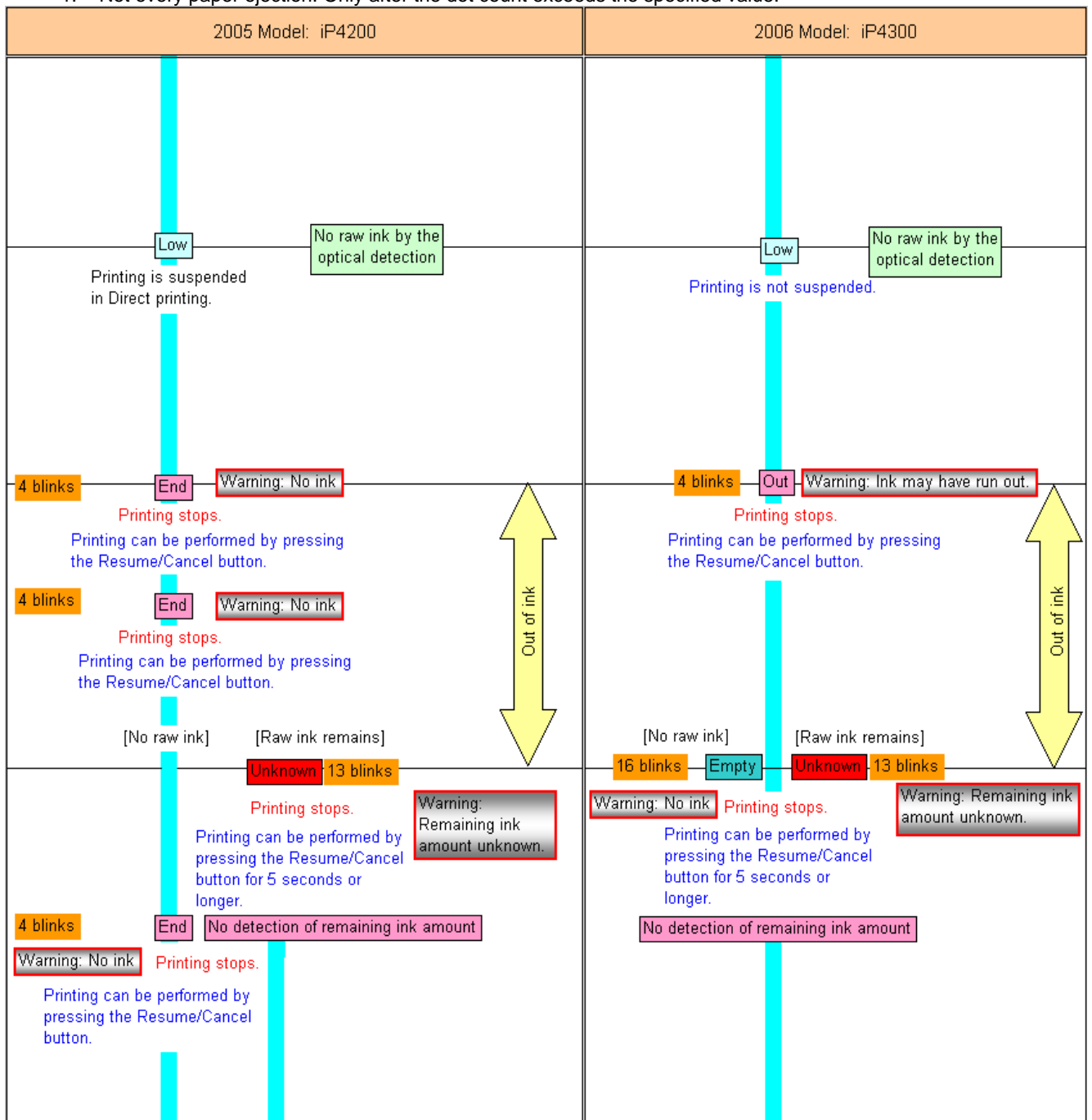
Unknown: Raw ink remains, but the dot count value exceeds the threshold of complete exhaustion of ink.

By pressing and holding the Resume/Cancel button for 5 seconds or longer, the function to detect the remaining ink amount can be disabled.

The remaining ink amount will be checked at any of the following timings:

- At the end of paper ejection^{*1}
- At the end of print head cleaning
- At the end of initialization
- At the end of the following operation:
 - Cover open => Ink tank removal and installation => Cover close
- In duplex printing, at the end of paper ejection after printing on the back side of paper^{*1}

*1: Not every paper ejection. Only after the dot count exceeds the specified value.



APPENDIX 1: SERVICE TEST PRINT

<EEPROM information contents>

On the service test print (sample below), confirm the EEPROM information as shown below.

Top area:

iP4300:	Model name
Vx.xx:	ROM version
D = xxx.x:	Ink absorber counter value (%)
USB (xxxxxx):	USB serial number

Middle area:

JPN:	Destination
------	-------------

Bottom area:

FA = xx xx xx:	Reserved for plant use
CDR (+xxxxx, +yyyyy):	CD / DVD sensor position correction value
CDRS = (xxxx):	CDR sensor correction value
Temp. = xxx:	Internal temperature
AB (K = OK Y = ...):	Ink system check result

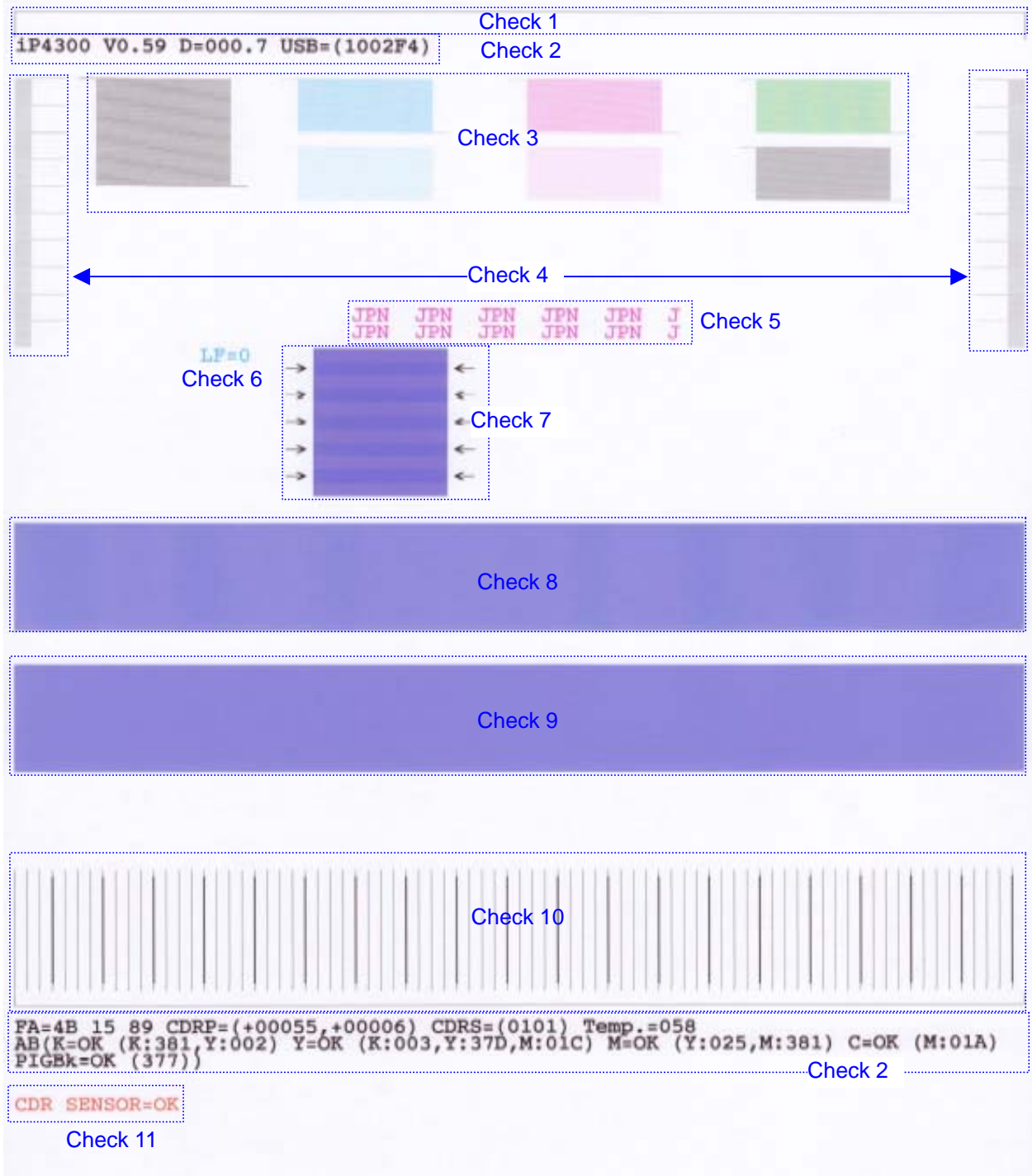
Note: For the ink amount in the ink absorber, confirm it in the EEPROM information print.

<Print check items>

On the service test print (sample below), confirm the following items:

- Check 1: Top of form accuracy, skewed paper feeding, left margin, and carriage accuracy (outermost)
- Check 2: EEPROM information
- Check 3: Check pattern for horizontal dot mis-alignment
All ink shall be ejected.
- Check 4: Check pattern for uneven printing due to uneven line feeding
There shall be no remarkable streaks or unevenness.
- Check 5: Destination
- Check 6: LF correction value:
The value selected in the LF correction is printed in cyan.
- Check 7: Check pattern for LF correction (the check pattern selected in the LF correction)
- Check 8: Check pattern for uneven printing due to carriage movement (9600 dpi mode)
There shall be no remarkable unevenness.
- Check 9: Check pattern for uneven printing due to carriage movement (1200 dpi mode)
There shall be no remarkable unevenness.
- Check 10: Check pattern for straight line accuracy
There shall be no remarkable dot mis-alignment on a line.
- Check 11: CD / DVD sensor and automatic print head alignment sensor correction
The result shall be OK.

<Service test print sample>



APPENDIX 2: EEPROM INFORMATION PRINT

<How to read EEPROM information print>

Print sample:

iP4300 JPN V1.00 ST=2006/05/27-18:30 LPT=2006/06/09-09:09
ER(ER0=1000 ER1=5100) P_ON(S=00009) MSD(015)
IF(USB1=0) PC(M=002 R=000 T=001 D=009 C=009)
D=004.5
TPAGE=00216
CLT(BK=2006/05/29-18:30 CL=2006/05/30-18:30)
CH=002 CT(PBK=001 BK=001 Y=002 M=001 C=001)
IS(PBK=1 BK=0 Y=1 M=1 C=1)
A_REG=1
M_REG=0
UR(A(BKoe)=000 B(Coe)=000 C(SCoe)=000 D(CLbi)=000 E(SCLbi)=000 F(C-SC)=000
G(BK-CL)=000 H(BKbiPP)=000 I(CLbiPP)=000 J(SCLbiPP)=000
K(NZctr)=000 L(NZedge)=000 M(CLbiHiReso)=000 N=(SCLbiHiReso)=000

CDIN(PB=000 OPB=000)
PAGE(All=00083 PP=00035 HR+MP=00003 PR+SP+SG =00000 GP =00000 PC=00000 EV=00000)
UCPAGE(All=00083 PP=00035 HR+MP=00003 PR+SP+SG =00000 GP =00000 PC=00000 EV=00000)
BPPAGE(All=00083 BPSP=00003 PC=00000)
CDPAGE(All=00000)
EDGE=00083 L=00000 CDR=00000
CDRP=(-00005,-00029) CDRS=(0101) LF=0 LM=(ASF_R:00 UT_F:00 UT_R:00)
INK_OFF(PBK=0 BK=0 Y=0 M=0 C=0)
Head TempBK=34.5 Head TempC=30.5 Env Temp=27.0

Printed items:

1. Model name
2. Destination
3. ROM version
4. Installation date
5. Last printing time
6. Operator call/service call error record
7. Power-on count (soft)
8. Longest period where printing stops (days)
9. Connected I/F (USB1)
10. Purging count (manual/deep cleaning/timer/dot count/ink tank replacement)
11. Ink amount in the ink absorber
12. Total print pages (TPAGE = total page)
13. Cleaning time (BK/CL)
14. Print head replacement count
15. Ink tank replacement count (PhotoBK/PigBK/Y/M/C)
16. Ink status (PhotoBK/PigBK/Y/M/C) => 0 (High) / 1 (Middle) / 2 (Low) / 3 (Empty)
17. Automatic print head alignment by user
18. Manual print head alignment by user
19. User print head alignment values
(BKoe/Coe/SCoe//CLbi/SCLbi/C-SC/BK-CL/BKbiPP/CLbiPP/SCLbiPP/NZctr/NZedge/CLbiHiReso/
SCLbiHiReso)
20. Camera Direct Print-supported device connection record (PB = Canon PictBridge-supported camera, OPB = Other PictBridge-supported camera)
21. ASF feed pages (total, plain paper, High Resolution Paper & Matte Photo Paper, Photo Paper Pro & Photo Paper Plus Glossy & Photo Paper Plus Semi-gloss, Glossy Photo Paper, postcard, envelope)
22. U-turn cassette feed pages (total, plain paper, High Resolution Paper & Matte Photo Paper, Photo Paper Pro & Photo Paper Plus Glossy & Photo Paper Plus Semi-gloss, Glossy Photo Paper,

postcard, envelope)

23. Auto duplex print pages (total, Photo Paper Plus Double Sided, postcard)

24. Camera Direct print pages (total)

25. Borderless print pages (total) 26. 4x6 print pages 27. Number of CDs and DVDs printed

28. CD / DVD print position adjustment value 29. CD / DVD sensor correction value 30. LF correction value 31. Left margin correction value (ASF back side, U-turn front side, U-turn back side)

32. Disabling of the remaining ink amount detection function (0 = never disabled, 1 = disabled)

33. Print head temperature (BK/CL) 34. Internal temperature