

# *iP3000*

# SERVICE MANUAL

**Canon**

# **iP3000**

## **SIMPLIFIED SERVICE MANUAL**

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**QY8-13A0-000**  
**Rev. 00**

**July 13, 2004**  
**Canon Inc.**

# 1. PRODUCT LIST

## 1-1. Main Units

Product name	Product code	Sales territory	Remarks
Canon Bubble Jet Printer iP3000	9316A001AA	US	Print head
	9316A002AA	CA	Ink tanks
	9316A003AA	LAM LVT	BCI-3eBK
	9316A004AA	LAM HVT	BCI-6C
	9316A005AA	EMB	BCI-6M
	9316A005AB	EMB	BCI-6Y
	9316A008AA	ASA HVT	CD-R tray <sup>*1</sup>
	9316A009AA	AU	8cm CD-R adapter <sup>*1</sup>
	9316A010AA	KR	
	9316A011AA	GB	*1: Only for CD-R printing supported regions
	9316A013AA	TW	
	9316A014AA	HK	
	9316A015AA	CN	
9316A017AA	EUM		

## 1-2. Options

None

## 1-3. Consumables

Product name	Product code	Sales territory	Remarks
Canon Ink Tank BCI-3eBK	4479A002AA to 4479A004AA	002: EUR 003: AMR	
Canon Ink Tank BCI-6C	4706A002AA to 4706A004AA	004: ASA / OCN	
Canon Ink Tank BCI-6M	4707A002AA to 4707A004AA		
Canon Ink Tank BCI-6Y	4708A002AA to 4708A004AA		

## 2. PRODUCT SPECIFICATIONS

### 2-1. Printer Main Unit Specifications

Type	Desktop serial color bubble jet printer				
Paper feeding method	Auto sheet feed (ASF, cassette, automatic duplex printing, CD-R printing*1)				
Resolution	4,800 dpi x 1,200 dpi (Max.)				
Throughput (Target value)	Draft		Standard		
	Black (Fine BK)	22 ppm	14.8 ppm		
	Color (Fine CL)	15 ppm	10.7 ppm		
Printing direction	Bidirectional, uni-directional				
Print width	Max. 203.2 mm (216 mm in borderless printing)				
Interface	USB 2.0 Full Speed				
ASF stacking capacity	Plain paper (65 g/m <sup>2</sup> ): Max. 13 mm (Approx. 150 sheets)				
Paper weight	64 to 105 g/m <sup>2</sup>				
Detection functions	<ul style="list-style-type: none"> <li>- Cover open</li> <li>- Remaining ink amount (optical / dot count)</li> <li>- Paper presence</li> <li>- Waste ink amount</li> <li>- Pick-up roller</li> <li>- Carriage position</li> <li>- Supported camera direct printing device</li> <li>- Supported paper size for duplex printing</li> </ul>		<ul style="list-style-type: none"> <li>- Presence of print head</li> <li>- Printing position</li> <li>- Paper end sensor</li> <li>- Internal temperature</li> <li>- Paper feed roller position</li> <li>- Head-to-paper distance</li> <li>- Presence of CD-R</li> <li>- Opening / Closing of paper output tray</li> </ul>		
Acoustic noise (Highest print quality)	<ul style="list-style-type: none"> <li>- Highest print quality settings: Approx. 35 dB</li> <li>- Quiet mode: TBD</li> </ul>				
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 120 V	50/60 Hz	Approx. 15 W	Approx. 0.5 W	Approx. 0.25 W
	AC 220 to 240 V	50/60 Hz	Approx. 15 W	Approx. 0.5 W	Approx. 0.25 W
External dimensions	Printer:				
	With the paper support and output tray retracted:		Approx. 418 (W) x 286 (D) x 170 (H) mm		
	With the paper support and output tray extended:		Approx. 418 (W) x 555 (D) x 325 (H) mm		
Weight	Approx. 6.5 kg, not including print head and optional units				
Related standards (Proposed) (Printer, Adapter)	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 (Argentine)				
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 (automatic detection by optical method and dot count, enabled at default)				
Paper type detection	Not available				
Print head alignment	Available (automatic or manual alignment via driver utilities, or the Resume / Cancel button in Camera Direct Printing, automatic alignment at default)				

\*1: Only for CD-R printing supported regions

## 2-2. Product Life

### (1) Printer

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

- Print volume: 6,000 pages
  - Black: 2,400 pages (A4, 1,500 character pattern)
  - Color: 1,800 pages (A4, 7.5% duty per color pattern)
    - 200 pages (A4, photo, borderless printing)
    - 1,000 pages (4 x 6, photo, borderless printing)
    - 600 pages (Postcard, photo, borderless printing)
- 3 years of use

### (2) Print head

- Print volume: 6,000 pages
  - Black: 2,400 pages (A4, 1,500 character pattern)
  - Color: 1,800 pages (A4, 7.5% duty per color pattern)
    - 200 pages (A4, photo, borderless printing)
    - 1,000 pages (4 x 6, photo, borderless printing)
    - 600 pages (Postcard, photo, borderless printing)

### (3) Ink tank (target value)

- BCI-3eBK: 740 pages (1,500 character pattern, plain paper / standard mode)
  - 1,500 pages (ISO JIS-SCID No. 5 / plain paper / standard mode)
- BCI-6C: 570 pages (ISO JIS-SCID No. 5 / plain paper / standard mode)
- BCI-6M: 440 pages (ISO JIS-SCID No. 5 / plain paper / standard mode)
- BCI-6Y: 380 pages (ISO JIS-SCID No. 5 / plain paper / standard mode)

## 2-3. Print Head Specifications

	Print head
Type	Single head with 4 removable ink tanks (each color)
Print head	BK: 320 nozzles in 2 vertical lines (600 dpi), 30 pl (pigment-based black) Color: 256 nozzles in 2 vertical lines per color x 5 (1,200 dpi), 5.5 pl (cyan, magenta, yellow) / 2.5 pl (cyan, magenta)
Ink color	Pigment-based black, Dye-based cyan, magenta, yellow
Ink tank	BCI-3eBK (pigment-based), BCI-6C / M / Y (dye-based)
Weight (Net)	Print head, approx. 56 g
Supply method	As a service part (not including ink tanks)
Part number	QY6-0042-000

### 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 Error (LED Blinking in Orange)

LED blinking	Error [Error code]	Corrective action	Remarks
2 times	No paper. (ASF) [1000]	Set the paper in the ASF, and press the Resume/Cancel button.	
	No CD-R tray. [1001] <sup>*1</sup>	Set the CD-R tray, and press the Resume/Cancel button.	
	No paper in the cassette. [1003] (No paper in the front paper feed cassette.)	Set the paper in the cassette, and press the Resume/Cancel button.	
3 times	Paper jam. [1300]	Remove the jammed paper, and press the Resume/Cancel button.	
	Paper jam in the under guide. [1304]		
	Paper jam in the rear guide. [1303]		
	Front door closed. [1250]	Open the paper output tray.	
4 times	No ink. [1601 / 1611 / 1612 / 1613]	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.
5 times	The print head is not installed [1401], or it is not properly installed (EEPROM data of the print head is faulty) [1403 / 1405].	Install the print head properly, and close the access cover. Or, with the print head installed, turn the printer off and on.	
6 times	Inner cover open. [1841] <sup>*2</sup>	Close the inner cover, and press the Resume/Cancel button.	
	Inner cover open (during printing on paper). [1846] <sup>*2</sup>	Close the inner cover, and press the Resume/Cancel button.	
	CD-R tray guide closed (during CD-R printing). [1850 / 1855] <sup>*1</sup>	Open the CD-R tray guide, set the CD-R tray properly, and press the Resume/Cancel button.	
	CD-R tray guide open (during printing on paper). [1851 / 1856] <sup>*1</sup>	Close the CD-R tray guide, and press the Resume/Cancel button.	
7 times <sup>*1</sup>	No CD-R or DVD-R. [1002]	After setting a CD-R or DVD-R in the tray, set the tray in the tray guide, and press the Resume/Cancel button.	
8 times	Warning: The waste ink absorber becomes almost full (approx. 95% of the maximum capacity). [1700]	Pressing the Resume/Cancel button will exit the error, and enable printing. In repair servicing, replace the bottom case unit (QM2-1249), or the ink absorbers (QC1-4222 / 4223 / 4224 / 4263 / 4264 / 4864).	The service call error, indicating the waste ink absorber is full, is likely to occur soon.

(3-1. Operator Call Error (cont'd))

LED blinking	Error [Error code]	Corrective action	Remarks
9 times	The connected digital camera or digital video camera does not support Camera Direct Printing. [2001]	After removing the cable between the camera and the printer, press the Resume/Cancel button, and re-connect the cable.	
10 times	Automatic duplex printing cannot be performed (paper size not supported). [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, and after confirming the following, perform print head alignment again: - Set an appropriate type and size of paper (plain paper, A4 or letter). - Check that the nozzle check pattern is properly printed (all ink ejected, no faint printing). - Protect the paper output slot from exposure to excessive light.	
	Access cover open. [1200]	Close the access cover.	

\*1: Only for models supporting CD-R printing

\*2: Only for models not supporting CD-R printing

### 3-2. Service Call Errors (by LED Blinking in Orange and Green Alternately, or Lit in Orange)

LED alternate blinking in orange and green	Error	Solution (Replacement of listed parts, which are likely to be faulty)
2 times	Carriage error [5100]	- Carriage unit (QM2-1250) - Timing slit strip film (QC1-4284) - Logic board ass'y (QM2-1520) <sup>*1</sup> - Carriage motor (QK1-0545)
3 times	Paper feed error [6000]	- Timing sensor unit (QM2-1545) - Timing slit disk film (QC1-4851) - Feed roller ass'y (QL2-0613) - Platen unit (QM2-1384) - Logic board ass'y (QM2-1520) <sup>*1</sup> - PAPER FEED MOTOR (QK1-0550)
4 times	Purge unit error [5C00]	- Purge unit (QM2-1252) - Logic board ass'y (QM2-1520) <sup>*1</sup>
5 times	ASF (cam) sensor error [5700]	- Sheet feed unit (QM2-1220)
6 times	Internal temperature error [5400]	- Logic board ass'y (QM2-1520) <sup>*1</sup>
7 times	Waste ink absorber full [5B00]	- Ink absorber (QC1-4222 / 4223 / 4224 / 4263 / 4264 / 4864) - Bottom case unit (QM2-1249) <sup>*2</sup>
8 times	Print head temperature rise error [5200]	- Print head (QY6-0042) - Logic board ass'y (QM2-1520) <sup>*1</sup>
9 times	EEPROM error [6800]	- Logic board ass'y (QM2-1520) <sup>*1</sup>
11 times	Carriage lift mechanism error [5110]	- Lift shaft(QC1-4331) - Photo interrupter (WG8-5624) - Sheet feed unit (QM2-1220) - Logic board ass'y (QM2-1520) <sup>*1</sup>
12 times	AP position error [6A00]	- Sheet feed unit (QM2-1220) - Logic board ass'y (QM2-1520) <sup>*1</sup>
13 times	Paper feed position error [6B00]	- Sheet feed unit (QM2-1220) - Logic board ass'y (QM2-1520) <sup>*1</sup>
14 times	Paper feed cam sensor error [6B10]	- Sheet feed unit (QM2-1220) - Logic board ass'y (QM2-1520) <sup>*1</sup>
15 times	USB Host VBUS overcurrent [9000]	- Logic board ass'y (QM2-1520) <sup>*1</sup>
16 times	Valve sensor error [6C00]	- Logic board ass'y (QM2-1520) <sup>*1</sup>
17 times	Motor driver error [6D00]	- Logic board ass'y (QM2-1520) <sup>*1</sup>
20 times	Other hardware error [6500]	- Logic board ass'y (QM2-1520) <sup>*1</sup>
Continuous alternate blinking	ROM error	- Logic board ass'y (QM2-1520) <sup>*1</sup>
Lights in orange	RAM error	- Logic board ass'y (QM2-1520) <sup>*1</sup>

\*1: Before replacement of the logic board ass'y, check the waste ink amount (by service test print or EEPROM information print). If the waste ink amount is 7% or more, also replace the bottom case unit (QM2-1249) or the ink absorbers (QC1-4222 / 4223 / 4224 / 4263 / 4264 / 4864) when replacing the logic board ass'y. See 4. SERVICE MODE, for details.

\*2: Reset the waste ink counter when replacing the bottom case unit. See 4. SERVICE MODE, for details.



### 3-3. Warnings

(1) Printer (no LED indications)

Displayed warning	Remarks
Low ink of 3eBK, 6C, 6M, or 6Y (at detection of no remaining raw 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,

#### 4. SERVICE MODE

Function	Procedures	Remarks
Service test print - Model name - ROM version - USB serial number - Waste ink amount - CD-R sensor correction	See "Service mode operation procedures" below.	Set a sheet of A4-, letter-, or larger-sized paper. For print sample, see APPENDIX 1, SERVICE TEST PRINT, <Service Test Print Sample>.
EEPROM initialization	See "Service mode operation procedures" below.	The following items are NOT initialized: - USB serial number - Destination settings - Waste ink counter - CD-R correction value
Waste ink counter reset	See "Service mode operation procedures" below.	If the waste ink amount is 7% or more, replace the bottom case unit, or the ink absorbers.
Destination settings	See "Service mode operation procedures" below.	Other than Japan: iP3000 Japan: iP3100

Note: At the end of the service mode, press the Power button. To protect the media sensor from being dislocated during transportation, the paper lifting plate of the sheet feeder 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 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 LED lights alternately in orange and green, starting with orange.)
- 4) When the 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 LED lights alternately in orange and green, starting with orange.)

Times	LED	Function	Remarks
0 times	Green	Power off	When the print head is not installed, the carriage returns and locks in the home position.
1 time	Orange	Service test print	See APPENDIX 1, SERVICE TEST PRINT.
2 times	Green	EEPROM information print	See APPENDIX 2, EEPROM INFORMATION PRINT.
3 times	Orange	EEPROM initialization	
4 times	Green	Waste ink counter resetting	
5 times	Orange	Destination settings	Proceed to the step 5), and follow the Destination settings procedures.
6 times	Green	Print head deep cleaning	
7 times	Green	CD-R test print	Not used in servicing.
8 times	Orange	CD-R print position correction (horizontal)	Not used in servicing.
9 times	Green	CD-R print position correction (vertical)	Not used in servicing.
10 times or more		Return to the menu selection	

- 5) After the function (menu) is selected, press the Power button. The LED lights in green, and the selected function is performed. (When the operation completes, the printer returns to the menu selection mode automatically.)

<Destination settings procedures>

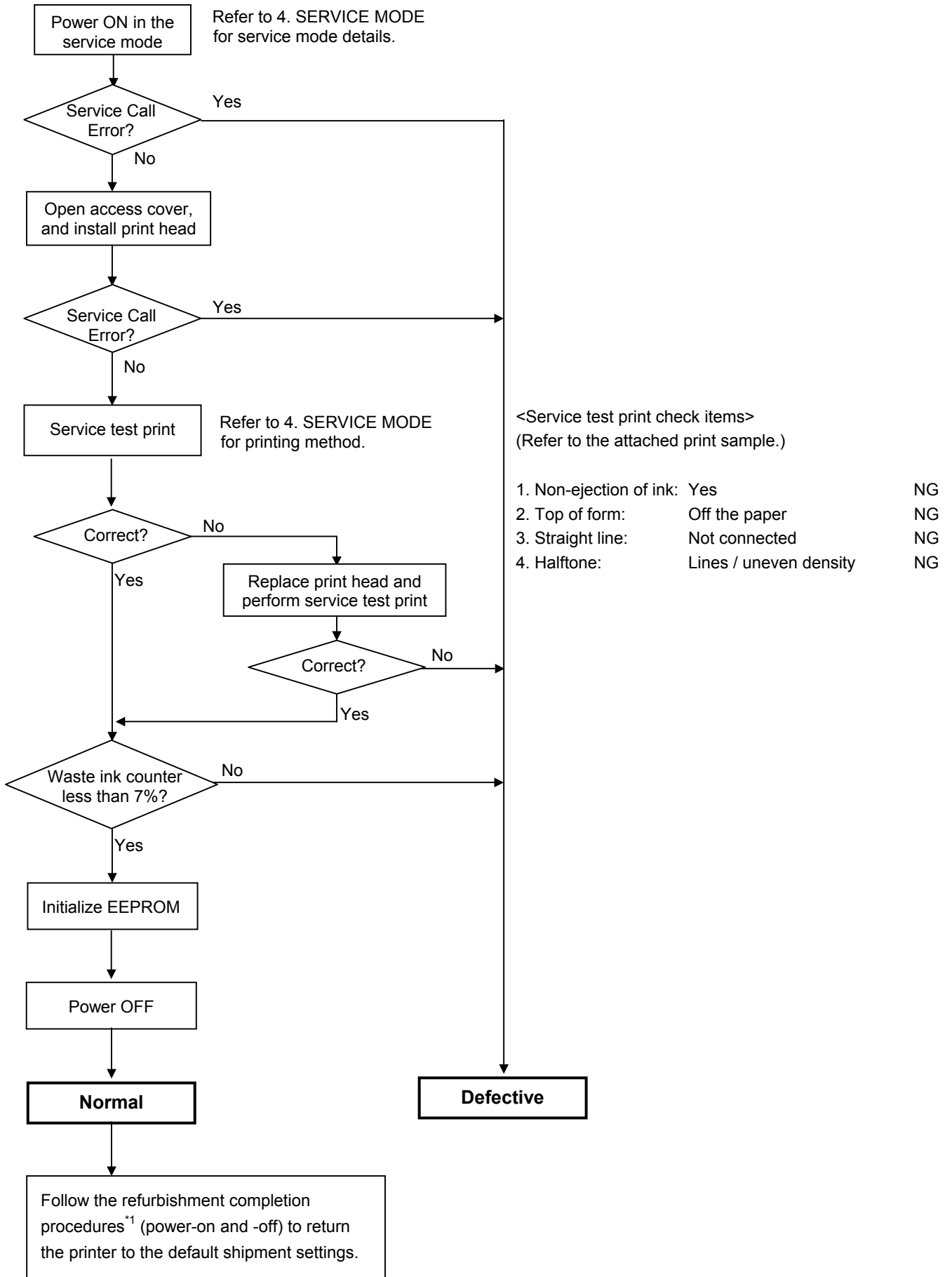
In the destination settings mode, press the Resume/Cancel button the specified number of time(s) according to the destination listed in the table below, and press the Power button.

Times	LED	Destination
1 time	Orange	Japan: iP3100
2 times	Green	Other than Japan, non-support of CD-R printing (A4): iP3000
3 times	Orange	Other than Japan, non-support of CD-R printing (LTR): iP3000 (LTR)
4 times	Green	Other than Japan, support of CD-R printing (A4): iP3000
5 times	Orange	Other than Japan, support of CD-R printing (LTR): iP3000 (LTR)
6 times or more		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.)

## 6. TROUBLESHOOTING FLOWCHART

### 6-1. Printer Main Unit Troubleshooting Flowchart (how to confirm printer operation at refurbishment)



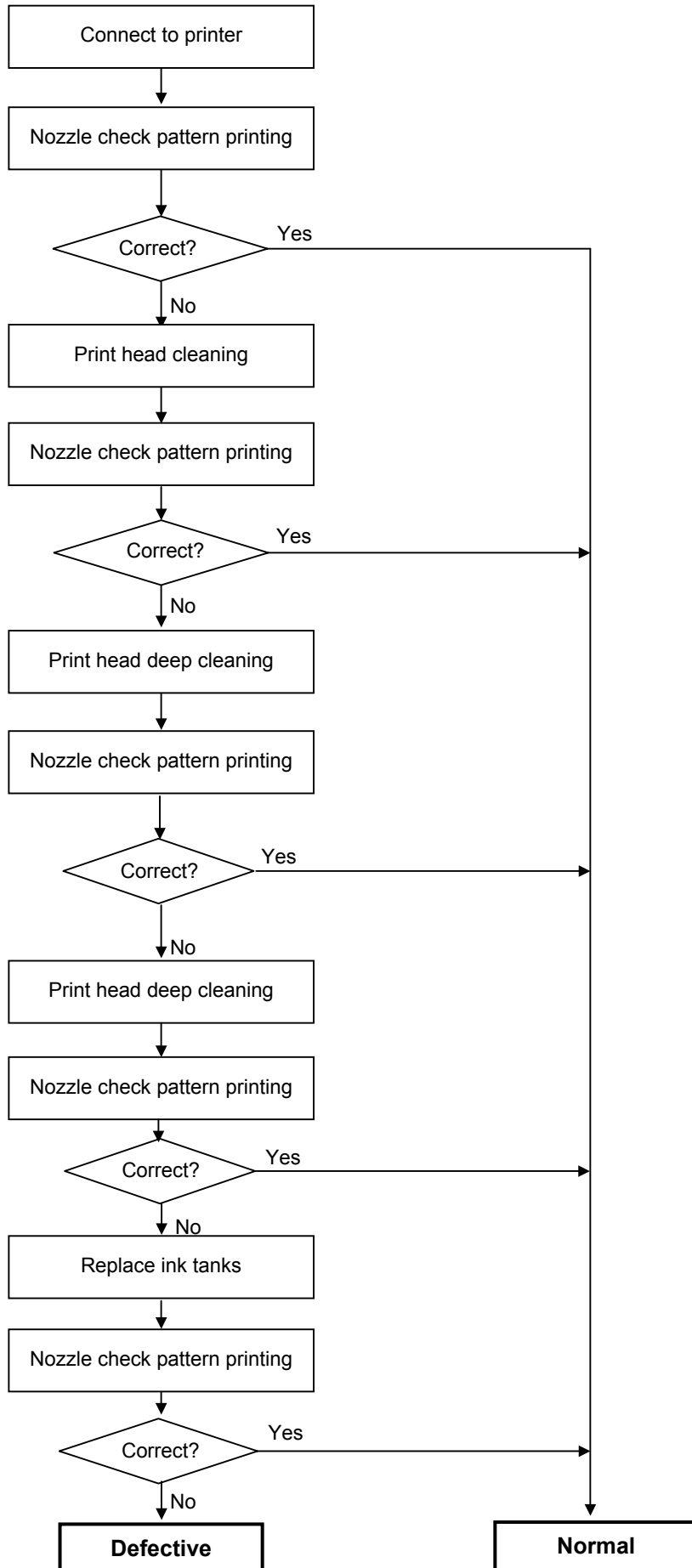
\*1: Refurbishment completion procedures:

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 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	Power LED	Paper Feed LED
First time	Lights in orange.	Cassette lights.
Second time	Lights in green	ASF lights.
- (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) Fix the print head lock lever with tape. (The Power LED blinks in green.)
- (6) Press the Paper Feed switch. (The Power LED lights in green.)
- (7) Close the front door. (The Power LED blinks in green, then is extinguished.)
- (8) Close the access cover.
- (9) Remove the power cord.
- (10) Pack the printer.

## 6-2. Print Head Troubleshooting Flowchart (print head operation confirmation)



## 7. SPECIAL NOTES ON SERVICING IN ASIA

### - Procedures for Transporting the Printer for Return 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 feeder unit is raised.
2. Keep the print head and ink tanks installed in the carriage. See Caution 1 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 2 below.
4. To further secure the carriage to prevent movement from the home position during transportation, make and use a fixing tool in the following procedures:
  - (1) Fold an A4-sized paper 5 times, and wrap it twice with tape, as shown in Figure A below (to prevent the fixing tool from caught into the inside of the printer).
  - (2) Insert the fixing tool between the carriage and the main case unit, and securely fix it with tape, as shown in Figures B and C below.

Note: The tape should be similar to the polyester tape used at shipment, which will not easily be torn or removed, or leave adhesive on the unit when removed.  
Leave a sufficient length of tape to fix the tool so that the tape end is easily seen even when the access cover is closed, so that the user will remove the tool from the returned printer without fail.

Figure A:



Figure B:



Figure C:



### Caution:

1. 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.
2. 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:

1. Install both the black and color ink tanks (to prevent the nozzles from drying).
2. 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).



## 8. PRODUCT TECHNICAL INFORMATION

### 8-1. FAQ (Problems specific to the iP3000 and corrective actions)

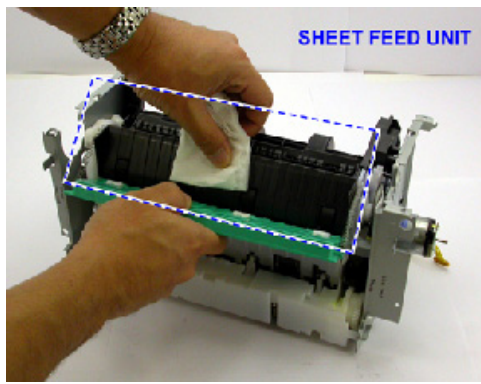
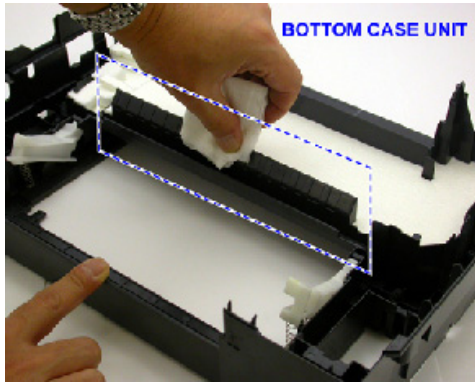
No.	Rank	Function	Phenomenon	Condition	Possible Call / Claim	Corrective action	Cause
1	C	Print results	Margin (approx. 0.3mm)	- Paper feeding from the cassette, Photo Paper Plus Double Sided (A4), borderless printing, printing on the back side of paper - In the low temperature and low humidity environment	- A margin appears on printouts. - Paper feeds at an angle.	- In the printer driver, increase the amount of extension. - Change the paper feeding method from the cassette to the auto sheet feeder.	
2	B		- Skewed paper feeding - Printing on the platen	- Plain paper - In the high temperature and high humidity environment	- Paper feeds at an angle. - Printing is performed on the platen. - The back side of paper gets smeared.	- If paper is curled, straighten it. - Try printing on the other side of paper.	
3	B		Variation in the top of form accuracy	- A5 or legal size - In the low temperature and low humidity environment - Not solved even when the number of sheets stacked in the auto sheet feeder or the cassette is reduced	- Print start position varies.	- Set the top margin to 4mm or more.	Due to decrease of paper feed capability in the low temperature and low humidity environment
4	B		- Skewed paper feeding - Margin	- Photo Paper Plus Double Sided - 2L size (Japan only)	- A margin appears on printouts. - Paper feeds at an angle.	- In the printer driver, increase the amount of extension. - Change the paper feeding method from the cassette to the auto sheet feeder.	
5	C	Safety during transportation	Carriage lock lever dislocation	- With the print head and ink tanks installed - The phenomenon occurred in the freight handling test.		When returning the repaired printer to the user, insert the fixing tool (A4 plain paper folded 5 times) between the main case and the carriage, and fix it with tape. See 7. Special Notes on Servicing in Asia.	During transportation for return after repair, ink dries, and no ink is ejected.
6	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.	- Paper gets smeared. - The back side of paper gets smeared.	1. Perform Bottom plate cleaning (from the printer driver) up to 3 times <sup>*1</sup> . <sup>*1</sup> : Change the paper in each Bottom plate cleaning. The cleaning can end when paper does not get any soiling. 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.	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.

(8-1. FAQ (Problems specific to the iP3000 and corrective actions) cont'd)

No.	Rank	Function	Phenomenon	Condition	Possible Call / Claim	Corrective action	Cause
7	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)		<p><b>Temporary operational solution:</b> Cancel automatic duplex printing, and manually print each side of paper.</p> <p><b>Cleaning by user:</b> 1. Perform Bottom plate cleaning (from the printer driver) up to 3 times<sup>*1</sup>. <sup>*1</sup>: Change the paper in each Bottom plate cleaning. The cleaning can end when paper does not get any soiling. 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.</p> <p>If the phenomenon persists after conducting 1 and 2, servicing is required.</p> <p><b>Service:</b> Wipe any soiling or dirt off from the sheet feed unit and the bottom case unit ribs<sup>*2</sup>.</p>	On the rib(s) inside the sheet feed unit used for duplex printing, ink mist may accumulate, smearing paper.
8	C		Scratches on paper	- PP-101D, PP-101, PR-101, SG-101, etc. - Paper feeding from the cassette - Multiple number of sheets loaded	- Paper is scratched. - Marks appear on printed paper.	- 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.	Scratches on the PF return lever due to paper feeding from the cassette, and duplex printing path.

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

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



## **8-2. New Technologies**

### **(1) Multi-paper handling**

Paper feeding through the auto sheet feeder and the front cassette, automatic duplex printing, and CD-R / DVD-R direct printing is available as a standard feature.

- Auto sheet feeder: Supports credit card size and sticker sheets as well as conventional paper types and sizes.
- Front cassette: Except credit card size and sticker sheets, supports the same types and sizes of paper as the auto sheet feeder.
- Automatic duplex printing unit built-in:  
By using Photo Paper Plus Double Sided, a photo album can be created automatically.
- CD-R / DVD-R direct printing unit built-in:  
By incorporating CD-R / DVD-R tray feeder functionality into the printer, CD-R / DVD-R direct printing can be performed without using a CD-R tray feeder.

Front loading and operation without any lever settings offers easy and quick printing.

### **(2) New design**

- Complete renovation to a new generation printer design
- Elegant-looking housing with mirror finished surface
- Various features and functionality in a compact body comparative to the i850 in size.

### **(3) Automatic duplex printing unit installed as a standard feature**

For the following paper types and sizes, automatic duplex printing can be performed:

- Type: Plain paper, Super White Paper (double-sided plain paper), Photo Paper Plus Double Sided (double-sided glossy photo paper)
- Size: A5, B5, 5" x 7", A4, LTR

# iP3000 Print Mode

YMC: 5pl ink droplets  
 mck: 2pl ink droplets  
 Bi: Bi-directional

## <Normal Color Printing>

Paper type	Print direction, ink used, resolution				
	Quality 1	Quality 2	Quality 3	Quality 4	Quality 5
Plain paper		High 4 passes, Bi BK: 600 x 600 YMCmc: 1200 x 1200	Standard 1 pass, Bi BKY: 600 x 600 MC: 1200 x 600	Draft 1 pass, Bi BK: 300 x 300 YMC: 600 x 600	Custom 1 pass, Bi BK: 300 x 600 YMC: 600 x 600
Transparency (CF-102)		High 6 passes, Bi BK: 600 x 600 YMC: 1200 x 1200	Standard 2 passes, Bi BK: 600 x 600 YMC: 1200 x 1200		
T-shirt transfer			High 6 passes, Bi YMC: 1200 x 1200		
Glossy Photo Paper (GP-401)		High 6 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	Standard 4 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200		
High Resolution Paper (HR-101S)		High 6 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	Standard 4 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200		
Envelope		High 4 passes, Bi BK: 600 x 600 YMCmc: 1200 x	Standard 3 passes, Bi BKY: 600 x 600 MC: 1200 x 600		
Photo Paper Pro (PR-101)	Custom 16 passes, Bi YMC: 2400 x 1200 mc: 4800 x 1200	High 6 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	Standard 4 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200		
Matte Photo Paper (MP-101)		High 6 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	Standard 4 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200		
Photo Paper Plus Glossy Photo Paper Plus Semi-gloss (PP-101/SG-101)		High 6 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	Standard 4 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	Draft 3 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	
Photo Paper Plus Double Sided (PP-101D)		High 6 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	Standard 4 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200		
CD-R (recommended / other)	High 8 passes, Bi CMY: 1200 x 1200 mc: 1200 x 1200	Standard 6 passes, Bi CMY: 1200 x 1200 mc: 1200 x 1200	Draft 4 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200		

## <Borderless Printing>

Paper type	Print direction, ink used, resolution				
	Quality 1	Quality 2	Quality 3	Quality 4	Quality 5
Plain paper			Standard 2 passes, Bi Y: 600 x 600 MC: 1200 x 1200		
Photo Paper Pro (PR-101)	Custom 16 passes, Bi YMC: 2400 x 1200 mc: 4800 x 1200	High 6 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	Standard 4 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200		

Matte Photo Paper (MP-101)		High 6 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	Standard 4 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200		
Photo Paper Plus Glossy Photo Paper Plus Semi-gloss (PP-101/SG-101)		High 6 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	Standard 4 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	Draft 3 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	
Glossy Photo Paper (GP-401)		High 6 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	Standard 4 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200		
Envelope		High 4 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	Standard 3 passes, Bi Y: 600 x 600 MC: 1200 x 1200		
Photo Paper Plus Double Sided (PP-101D)		High 6 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	Standard 4 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200		

### <Duplicate Printing>

Paper type	Print direction, ink used, resolution				
	Quality 1	Quality 2	Quality 3	Quality 4	Quality 5
Plain paper		High 4 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	Standard 1 pass, Bi Y: 600 x 600 MC: 1200 x 1200	Draft 1 pass, Bi YMC: 600 x 600	Custom 1 pass, Bi YMC: 600 x 600
Envelope		High 4 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	Standard 3 passes, Bi Y: 600 x 600 MC: 1200 x 1200		
Photo Paper Plus Double Sided (PP-101D)		High 6 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200	Standard 4 passes, Bi YMC: 1200 x 1200 mc: 1200 x 1200		

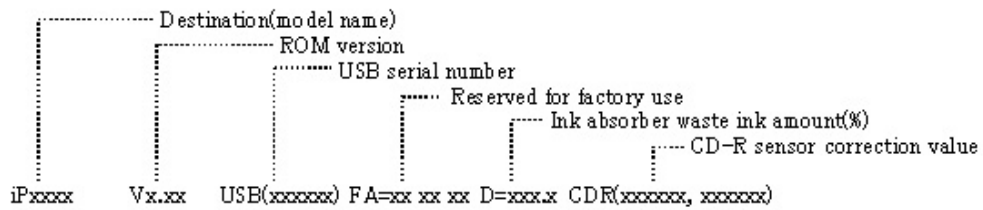
### <Camera Direct Printing>

Paper type	Print direction, ink used, resolution				
	Quality 1	Quality 2	Quality 3	Quality 4	Quality 5
Photo Paper Pro (PR-101 4 x 6)		High 6 passes, Bi CMY:1200 x 1200 mc:1200 x 1200			
Photo Paper Plus Glossy (PP-101 4 x 6)		High 6 passes, Bi CMY:1200 x 1200 mc:1200 x 1200			

## APPENDIX 1: SERVICE TEST PRINT

<EEPROM information contents>

On the service test print (sample below), confirm the EEPROM information as shown below. (The information is given in the upper portion of the printout.)

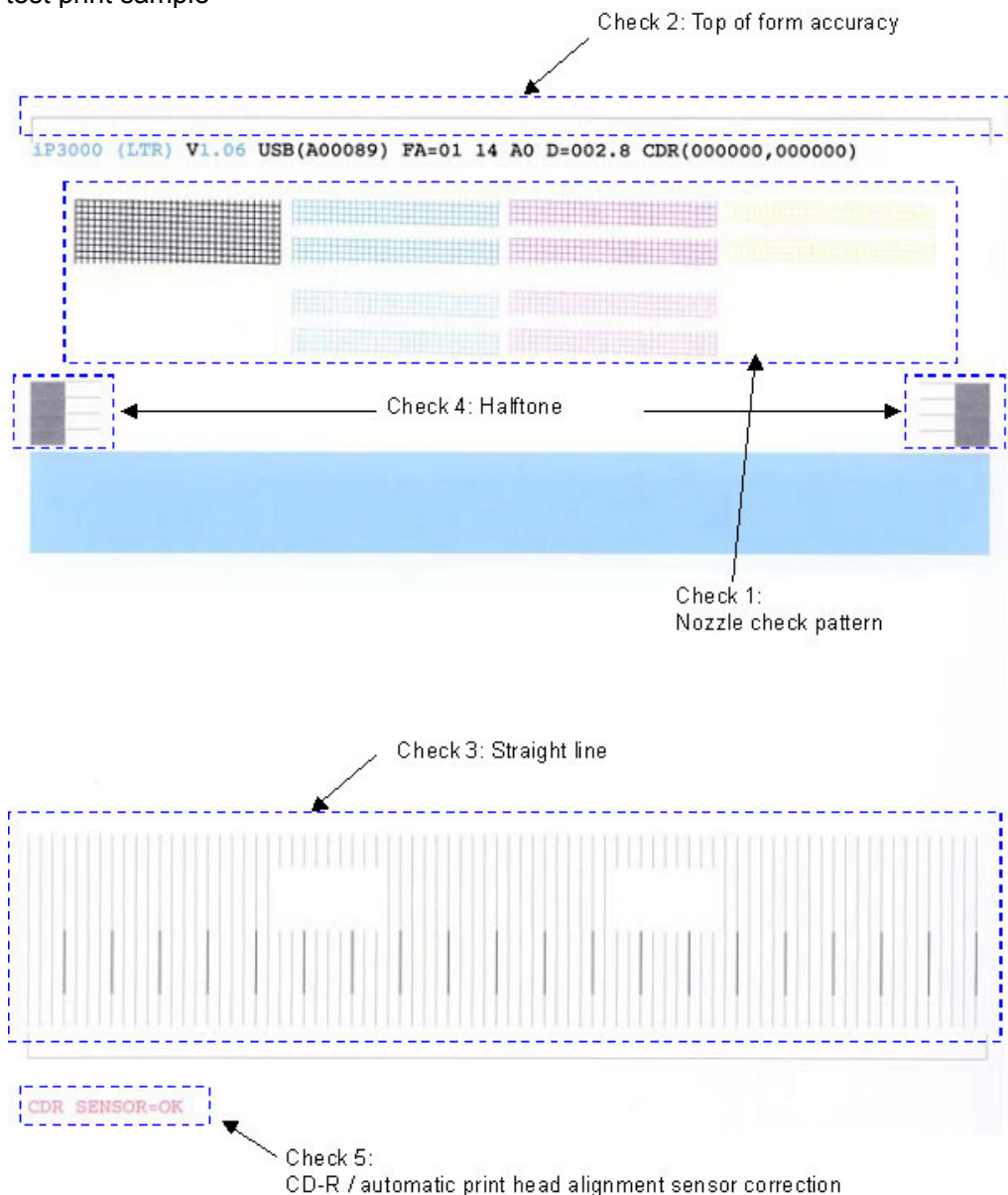


<Print check items>

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

- Check 1, nozzle check pattern: Ink shall be ejected from all nozzles
- Check 2, top of form accuracy: The line shall not extend off the paper.
- Check 3, vertical straight lines: The line shall not be broken.
- Check 4, halftone: There shall be no remarkable streaks or unevenness.
- Check 5, CD-R / automatic print head alignment sensor correction: The results shall be OK.

<Service test print sample>



## APPENDIX 2: EEPROM INFORMATION PRINT

<How to read EEPROM information print>

Print sample:

```
iPXXXX V1.02 IF(USB1=1 1284=0) D=004.5 ST=2004/05/27-18:30
ER(ER0=1000 ER1=5100 LPT=2004/06/03-09:09
PC(M=002 R=000 T=001 D=009 C=009)
CLT(BK=2004/06/19-18:30 CL=2004/06/19-18:30)
CH=00002 CT(BK1=040 BK2=020 C=109 M=012 Y=113) IS(BK1=1 BK2=0 C=1 M=1 Y=1)
P_ON(S=00009) A_REG=1 M_REG=0
UR(A(BKoe)=+01 B(Coe)=-01 C(Moe)=+01 D(SCoe)=-01 E(SMoe)=+01 F(PBKoe)=+01
G(BKbi)=+01 H(CLbi)=+01 I(BK-CL)=+01 J(SCLbi)=+01 K(C-SC)=+01 L(M-SM)=+01)

WP=0024 CDIN(LG=001 PB=000) MSD(015)
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 BSGP=00003 PC=00000)
CDPAGE(All=000) EDGE=00083 L=00000 CDR=00000
CDRP=(-00005,-00029) CDRS=(000)
Head TempBK=18.5 Head TempC=17.5 Env Temp=30.0 FF(3F 3F 3F)

HDEEPROM
V0001
SN=0318-A43D
LN(00000 00000 00001 00003 00001 00000 00000)
ID=00
IL=(BK=000 C=000 M=000 Y=000 C2=000 M2=000 PBK=000)
```

Printed items:

1. Model name
2. ROM version
3. Connected I/F (USB1/1284)
4. Waste ink amount
5. Installation date
6. Operator call/service call error record
7. Last printing time
8. Purging count (manual/deep cleaning/timer/dot count/ink tank or print head replacement)
9. Cleaning time (BK/CL)
10. Print head replacement count
11. Ink tank replacement count (pigment BK/dye BK/C/M/Y)
12. Ink status (pigment BK/dye BK/C/M/Y)
13. Power-on count (soft)
14. Automatic print head alignment by user
- 14-1. Manual print head alignment by user
15. User print head alignment values (Bkoe/Coe/Moe/SCoe/SMoe/PBKoe/BKbi/CLbi/BK-PCBK/SCLbi/C-SC/M-SM)
16. Wiping count
17. Camera Direct Print-supported device connection record
18. Longest period where printing stops
19. 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)
20. 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)
21. Auto duplex print pages (total, Photo Paper Plus Double Sided, postcard)
22. Camera Direct print pages (total)
23. Borderless print pages
24. L & 4x6 print pages
25. Number of CD-Rs printed
26. CD-R print position adjustment
27. CD-R sensor correction value
28. Print head temperature (BK/CL)
29. Inside temperature
30. Line inspection information

HDEEPROM

31. Version
32. Serial number
33. Lot number
34. Print head ID
35. Ink ejection level (BK/C/M/Y/C2/M2/PBK)