OKI

Wide Format Solvent Inkjet Printer

IP-7900-20/21
IP-7700-20/21

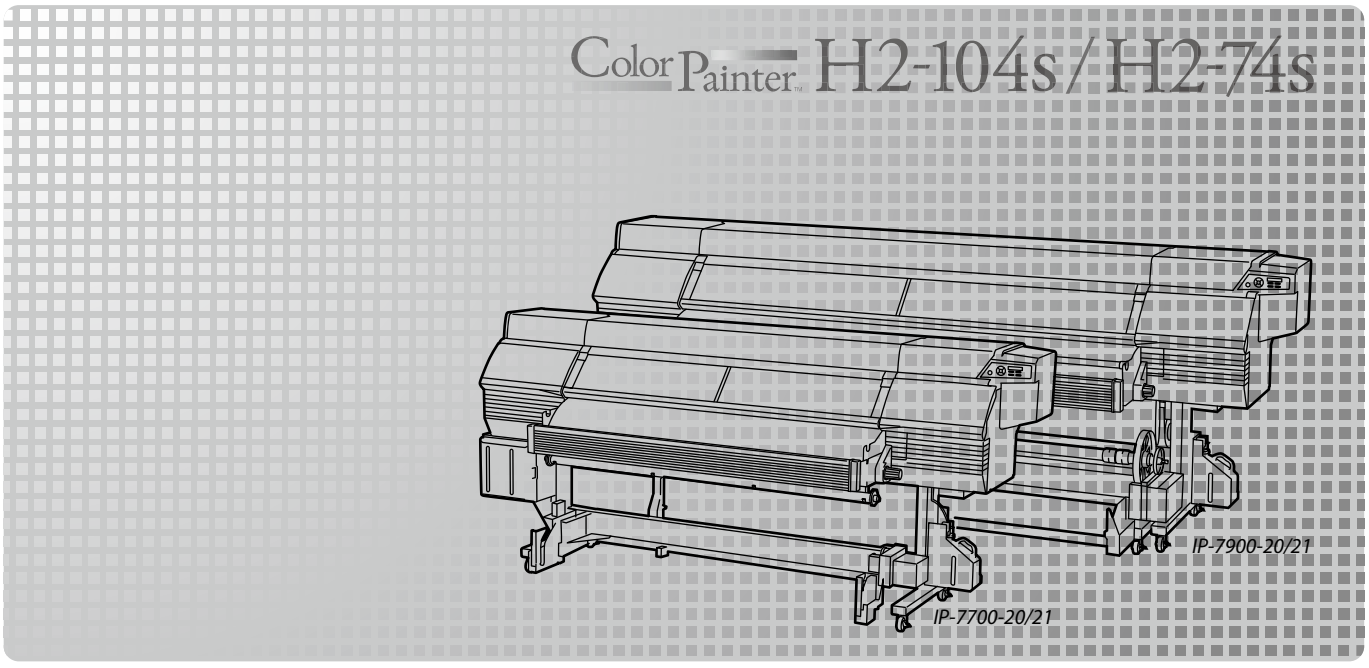
Advanced Operation Guide

2

Document number

Read this User's Guide carefully before use of this printer and handle it properly.
After reading, keep it for later use.

U00125350703



OKI Data Infotech Corporation

IP-7900-20/-21/IP-7700-20/-21 Wide Format Solvent Inkjet Printer Advanced Operation Guide
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CE

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In each directive, the scope of directive to be applied to equipment is explicitly defined. Our company's product IP-7700 and IP-7900 conform to the EMC directive, low voltage directive and RoHS Directive.

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Introduction

IP-7900-20/-21/IP-7700-20/-21 Wide Format Solvent Inkjet Printer (hereafter simply called the Printer below.) is equipped with built-in USB interface that adopts solvent ink and supports media of up to 104-inch width (IP-7700: 74-inch width).

The IP-7900-20/-21/IP-7700-20/-21 Wide Format Solvent Inkjet Printer Advanced Operation Guide describes:

- Function setting operation
- Adjustment procedures

For the information below required to start operating the Printer, refer to the **"Basic Operation Guide".**

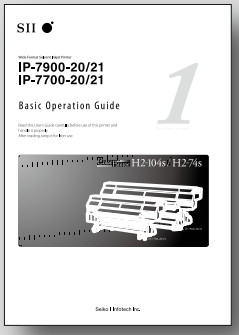
- Basic information required for the operation
- Basic operations to turn the Printer on and off and to handle the media and ink system

To operate the Printer safely and properly, before starting the operation be sure to read the following of the "**Basic Operation Guide."**

- **Safety precautions**
- **Components delivered with the Printer**
- **Manual legend (notation rules)**

Keep these Guides near the Printer so that you can quickly access it at any time.

How do the two Guides work?



Basic Operation Guide

Read the Basic Operation Guide before your first Printer operation. This guide describes the basic handling and daily operation of media, printing, and maintenance.

To perform your first printing — page 26

To print on other media — page 54

To perform double-sided printing — page 62

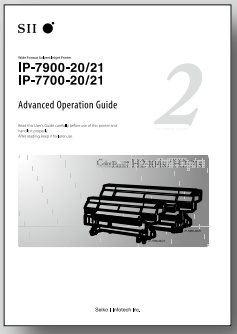
To perform the Printer's maintenance — page 66

To replace the Printer's ink pack — page 116

To replace the Printer's waste ink bottle — page 114

To recover error messages — page 106

To clear media jams — page 105



Advanced Operation Guide

Read the Advanced Operation Guide so that you can operate the Printer effectively.
This Guide describes the Printer's fine setting and adjustment to maximize the Printer's performance.

To operate the Printer with fine settings **page 84**

To create a new media preset **page 26**

To clear banding, white lines, and bleeding **page 56**

To switch between 4-color and 8-color modes **page 71**

To turn the Printer off **page 8**

To print on cut-sheet media **page 43**

To change heater temperature while printing **page 79**

TABLE OF CONTENTS

Introduction 3
Manual legend (Notational rules) 7

To assist your Printer in operating effectively 8

Turn the Printer off 8
Service cleaning 9
Head wash 14
Charging the ink system after head wash 19
Check the Printer status 22
Check the remaining ink level 22
Check remaining media length 23
Print reports on the Printer status. 23
Check the USB connection status 24
Check the firmware version on your Printer 25
Check the total print distance 25
Handle the media 26
Create a new media preset 26
Select a preset media 28
Minimize the right and left margins 28
Prevent the media from sticking and wrinkling 30
Solve media lifting up problem 31
Print on a thick media 32
Change the automatic cleaning timing 33
Set smart pass, density and print direction on the Printer's side. 34
Copy a preset media type to create a new one 36
Change the type of the preset media without reloading the media 38
Feed or rewind media 38
Move a print start position (nest function) 40
Use the media until the very end 41
Print on a cut-sheet media 43
Adjust the head margin before printing 45
Reinstall the edge guards during printing 46
Remove some media wrinkles during printing 47
Solve skew in LOOSE winding mode 47
To change the Printer's basic settings 49
Turn the audio warning beep off 49
Update the system firmware 49
Cleaning options 50
Perform cleaning only for the specified print head 50
Manage the media advance compensation 52
Change media advance compensation 52
Print conditions 53
Set **PRINT MODE** 53
Set **SMART PASS** 54
Set **DENSITY** 54
Troubleshoot print quality issues 56
The print is light. 56
Missing dots are found at the beginning of printing. 56
The media is curled or wrinkled. 57
White stripes appear on the print. 58
Edges of objects are blurred. 64
A vertical barding appears at the print's edge. 65
Different bandings appear on the print's right and left. 66
Clear missing dots (nozzle clogging) 67
Strong cleaning 67
Fill the cap with ink 68
Fill the cap with wiper cleaning liquid 69
Switch between 4-color mode and 8-color mode 71
Adjust the heaters' temperature 79
Procedure to set the heater temperature 79
Display the heater control menu. 80
Key operation in the heater control menu 80
Finish displaying the heater control menu 80
Set the heater preset temperature 81
Select the standby time 82
Smart pass technology 83

Adjust and calibrate the Printer 84

Before adjustment and calibration 84
Procedures 85
Adjusting media advance compensation 85
Print [MULTI ADV] adjustment pattern 85
Adjust bidirectional print positions 88
Adjust the print linkage before or after automatic cleaning 92
Adjust the print head position and the nozzle positions at the print head's right and left 96
Asjust the edge sensor position 99

Menu tree 102

Index 108

Manual legend (Notational rules)

The notational rules such as marks, keys, LCD, and LEDs used for explanation in this guide are as follows:

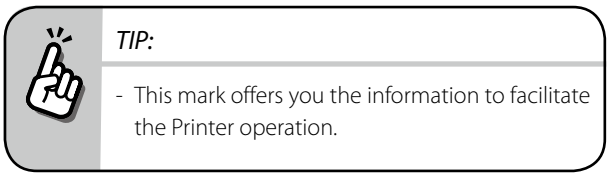
Marks

⚠WARNING

- Boxes marked with a "WARNING" describe points of caution for avoiding serious personal injury.

⚠CAUTION

- Boxes marked with a "CAUTION" describe points of caution for avoiding injury to yourself or damage to the Printer.



📖 Reference mark

This mark is followed by a reference section or page number.

Turn the Printer off

Always set the Printer power to on to perform the fill cap operation.

Fillcap is...?

- To remove nozzle clogging from nozzle surface, use fillcap option. This option fills the cap with ink to soak the print head (nozzle surface) in the ink for a minimum of 1 to 2 hours. If possible, leave the Printer overnight.
  Use this option also when nozzles cannot be fixed by cleaning repeatedly.

The Printer has an internal clock which allows it to automatically wash the print heads, flushing some ink through the print heads, which keeps the print heads in good condition. The Printer automatically washes the print heads 72 hours after the last printing, and then regularly washes every 3 days.

If the Printer is turned off for a long period, this process above does not happen. If the ink does not flow through the print heads regularly, the ink will dry inside the nozzle, reaching a point where they cannot be recovered and the print heads will fail. This will mean a print head replacement.
So, if the Printer must be turned off, follow the guide below.

Power-off

For a short period **For a several days**

For two weeks or more

Service cleaning *(page 9)*
Clean the print head and the ink flow path with the storage liquid, and leave the printer with storage liquid filled.
Prepare the storage liquid set (IP7-137).

For one month or more

When leaving the Printer for more than one month, contact your service representative beforehand.

Power-on

Head wash *(page 14)*
Clean the print head and the ink flow path with the cleaning liquid.
Prepare the cleaning liquid set (IP7-136).

Charging ink after head wash *(page 19)*
After the head wash, Insert ink trays and charge the ink system.

Daily maintenance
(Basic Operation Guide page 66)
Perform the daily maintenance.

The service call error is displayed regardless of whether service cleaning has been performed or not. Contact your service representative.

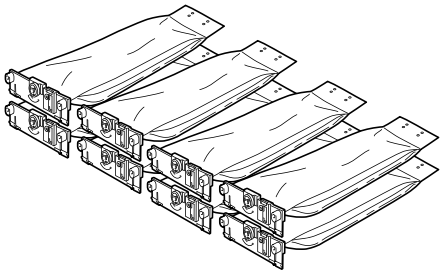
⚠CAUTION

- To protect the print head, do not leave your Printer for more than one month with no ink charged.
- During the service cleaning or head wash, do not open or close the front cover or the lever. Otherwise, the Printer may restart its initial operation from the beginning, while wasting the ink and cleaning liquid.

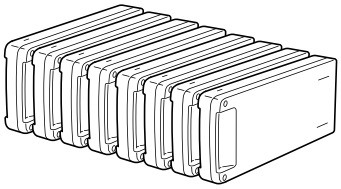
Service cleaning

Required items Before the operation check that the items below are prepared.

Storage liquid set (IP7-137)



Storage liquid pack



Dummy subcartridge

Use the eight storage liquid packs completely in a single service cleaning.

NOTE

On the LCD, ink box cover is indicated as INK COVER.

INK COVER is displayed to indicate an ink box cover.

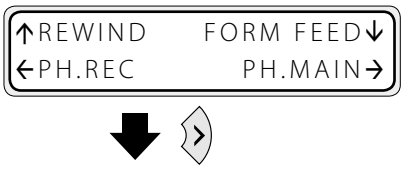
To facilitate this work, set the storage liquid packs to the optional ink trays in advance.

1 Install an empty waste ink bottle.

2

Set the Printer to offline state and press the MENU key.

3



Press the › key.

4

With the ⌄ key scroll to **[#INK SYSTEM OPT]**.

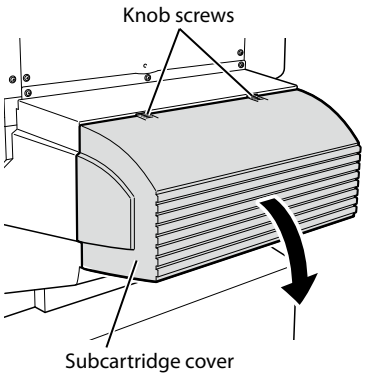
5

Press the OK key.

6

Press the OK key.

7

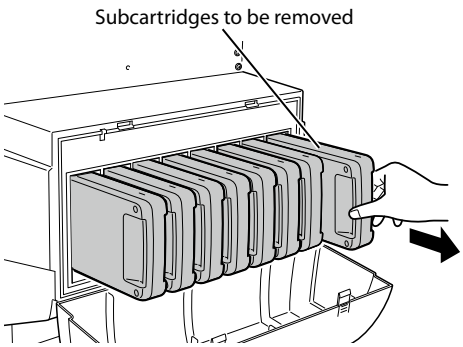


Open the subcartridge cover.

Loosen the two knob screws on the subcartridge cover and open the subcartridge cover.

```
OPEN
SUBCARTRIDGE COVER
```

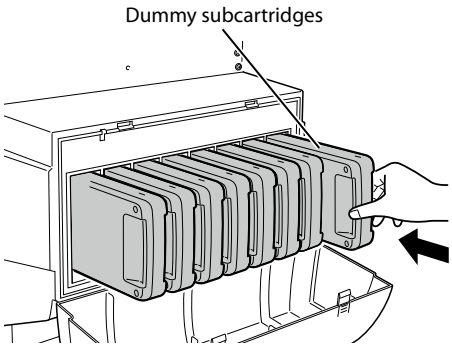
8



Remove the eight subcartridges.

```
REMOVE
Y1 SUBCARTRIDGE
```

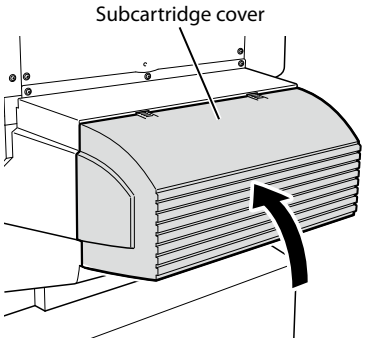
9



Set the dummy subcartridges of the storage liquid set.

```
LOAD
Y1  DUMMY SUBCART
```

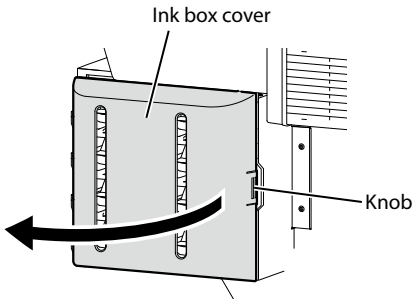
10



Close the subcartridge cover and tighten the two knob screws.

```
CLOSE
SUBCARTRIDGE COVER
```

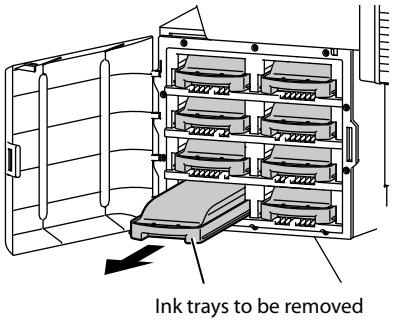
11



Open the ink box cover.

```
OPEN
INK COVER
```

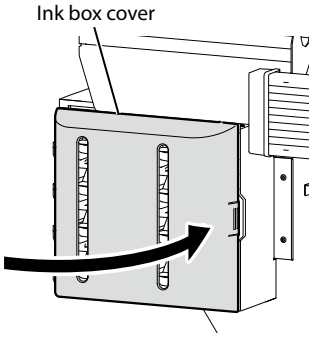
12



Remove the eight ink trays.

```
REMOVE
Y1  INK PACK
```

13



Close the ink box cover.

```
CLOSE
INK COVER
```

14

```
START PURGING
*BOTTLE OK?
```

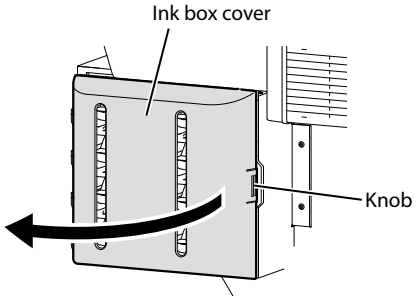
OK

```
PURGING
PLEASE WAIT   12
```

Press the OK key.

Ink is purged from the ink system.

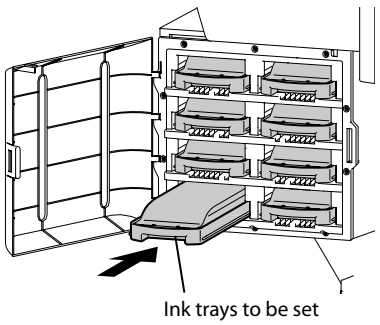
15



Open the ink box cover.

```
OPEN
INK COVER
```

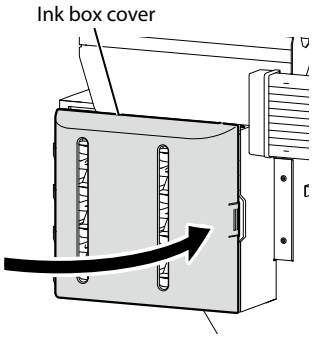
16



Insert the ink trays with storage liquid packs into the slots of the ink box.

```
LOAD
Y1  SL PACK
```

17



Close the ink box cover.

```
CLOSE
INK COVER
```

18

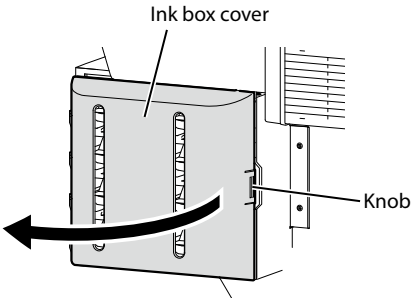
```
START SL CHARGING
*BOTTLE OK?
```

OK

```
CHARGING SL
PLEASE WAIT    12
```

Press the OK key.

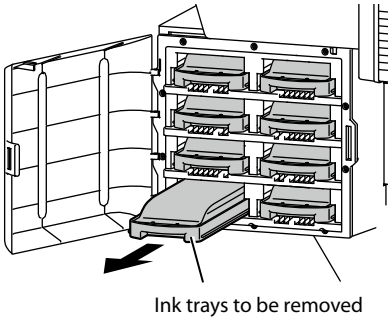
19



Open the ink box cover.

```
OPEN
INK COVER
```

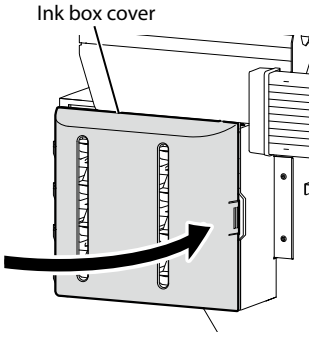
20



Remove the ink trays with cleaning liquid packs.

```
REMOVE
Y1 SL PACK
```

21



Close the ink box cover.

```
CLOSE
INK COVER
```

22

```
START PURGING
*BOTTLE OK?
```

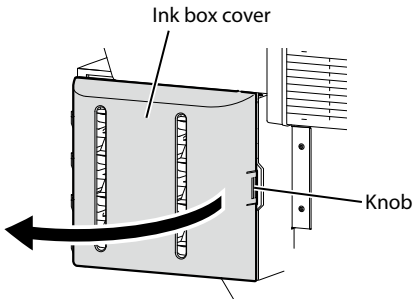
OK

```
PURGING
PLEASE WAIT    12
```

Press the OK key.

Ink is purged from the ink system.

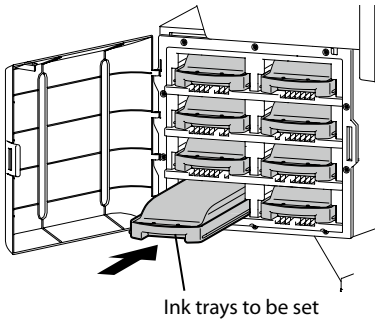
23



Open the ink box cover.

```
OPEN
INK COVER
```

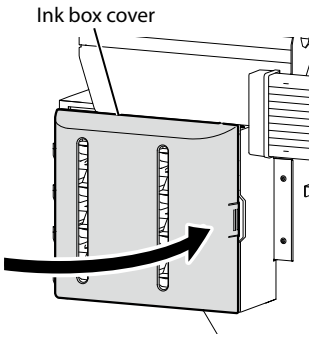
24



Insert the ink trays with storage liquid packs into the slots of the ink box.

```
LOAD
Y1  SL PACK
```

25



Close the ink box cover.

```
CLOSE
INK COVER
```

26

```
START SL CHARGING
*BOTTLE OK?
```

↓ OK

```
CHARGING SL
PLEASE WAIT    12
```

↓

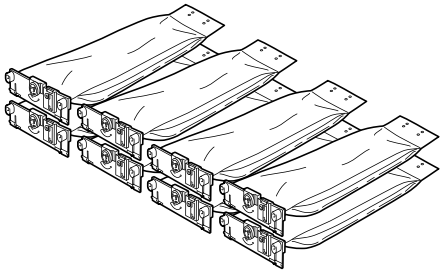
```
#INK SYSTEM OPT
>STORE INK SYS
```

Press the OK key.

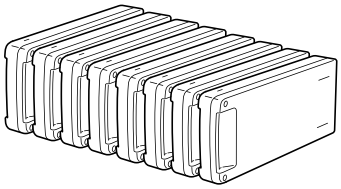
Head wash

Required items Before the operation check that the items below are prepared.

Cleaning liquid set (IP7-136)



Cleaning liquid pack



Dummy subcartridge

Use the eight cleaning liquid packs completely in a single head wash.

NOTE

On the LCD, ink box cover is indicated as INK COVER.

INK COVER is displayed to indicate an ink box cover.

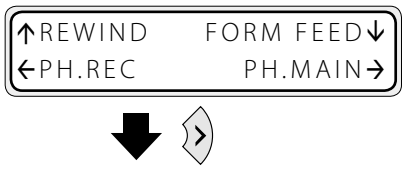
To facilitate this work, set the cleaning liquid packs to the optional ink trays in advance.

1 Install an empty waste ink bottle.

2

Set the Printer to offline state and press the MENU key.

3



Press the › key.

4

With the ⌄ key scroll to **[#INK SYSTEM OPT]**.

5

Press the OK key.

6

```
#INK SYSTEM OPT
✻STORE INK SYS
```

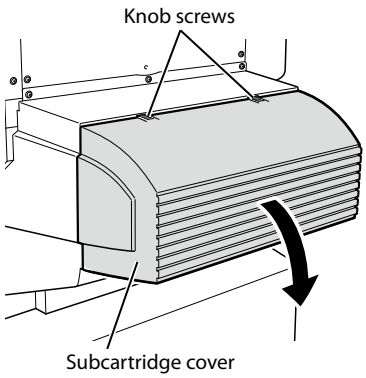
With the ⌄ key scroll to **[✻CLEAN INK SYS]**.

7

```
#INK SYSTEM OPT
✻CLEAN INK SYS
```

Press the OK key.

8

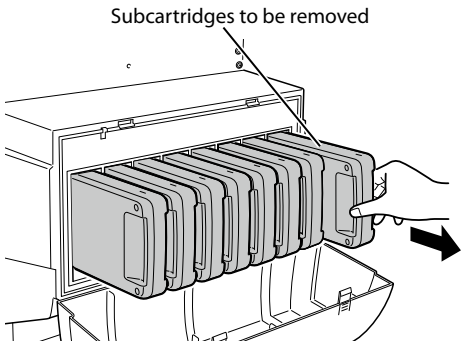


Open the subcartridge cover.

Loosen the two knob screws on the subcartridge cover and open the subcartridge cover.

```
OPEN
SUBCARTRIDGE COVER
```

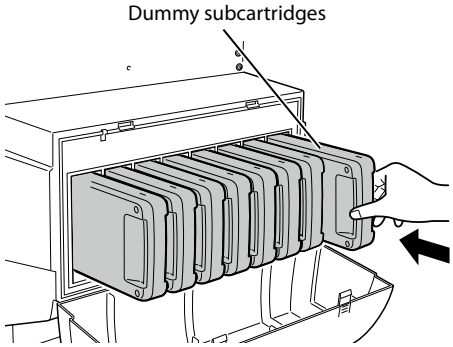
9



Remove the eight subcartridges.

```
REMOVE
Y1 SUBCARTRIDGE
```

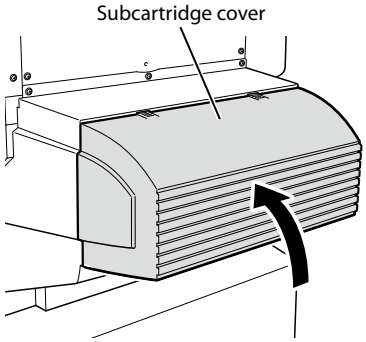
10



Set the dummy subcartridges of the cleaning liquid set.

```
LOAD
Y1 DUMMY SUBCART
```

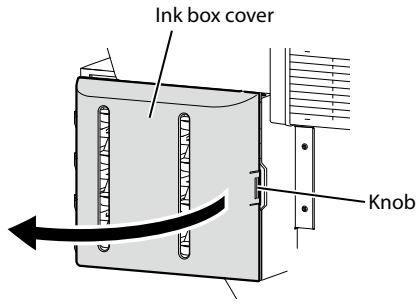
11



Close the subcartridge cover and tighten the two knob screws.

```
CLOSE
SUBCARTRIDGE COVER
```

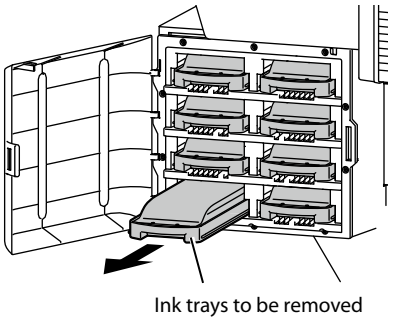
12



Open the ink box cover.

```
OPEN
INK COVER
```

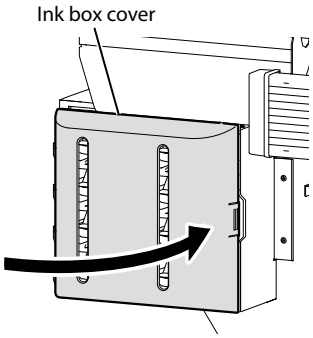
13



Remove the eight ink trays.

```
REMOVE
Y1 SL PACK
```

14



Close the ink box cover.

```
CLOSE
INK COVER
```

15

```
START PURGING
*BOTTLE OK?
```

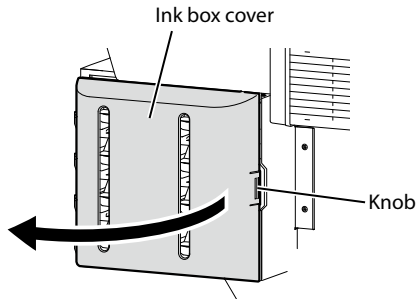
OK

```
PURGING
PLEASE WAIT    12
```

Press the OK key.

Ink is purged from the ink system.

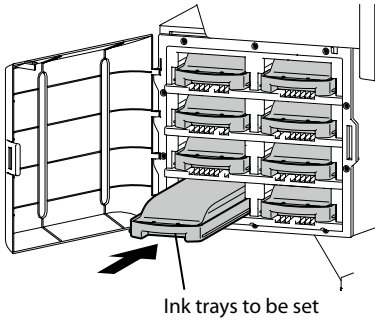
16



Open the ink box cover.

```
OPEN
INK COVER
```

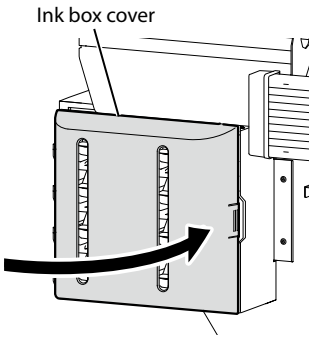
17



Insert the ink trays with cleaning liquid packs into the slots of the ink box.

```
LOAD
Y1 CL PACK
```

18



Close the ink box cover.

```
CLOSE
INK COVER
```

19

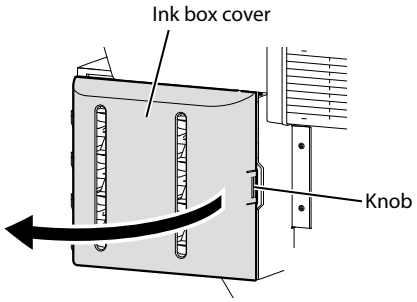
```
START CL CHARGING
*BOTTLE OK?
```

OK

```
CHARGING CL
PLEASE WAIT     12
```

Press the OK key.

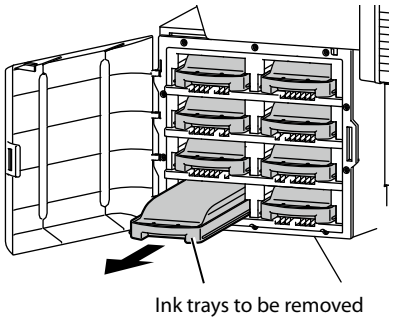
20



Close the ink box cover.

```
OPEN
INK COVER
```

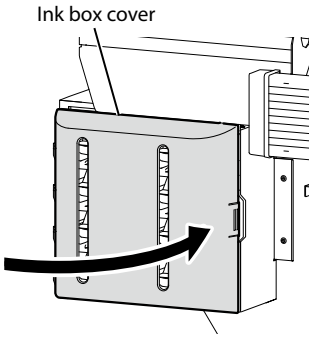
21



Remove the ink trays with cleaning liquid packs.

```
REMOVE
Y1 CL PACK
```

22



Close the ink box cover.

```
CLOSE
INK COVER
```

23

```
START PURGING
*BOTTLE OK?
```

OK

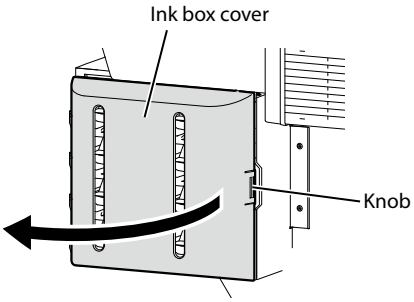
```
PURGING
PLEASE WAIT    12
```

Press the OK key.

Ink is purged from the ink system.

24 Repeat the steps **16** to **19** to perform the cleaning again.

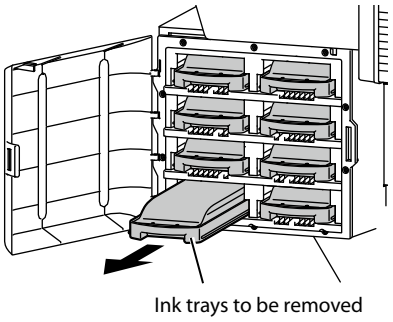
25



Open the ink box cover.

```
OPEN
INK COVER
```

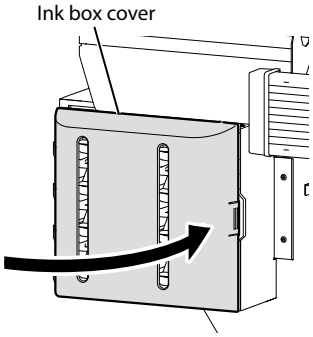
26



Remove the ink trays with cleaning liquid packs.

```
REMOVE
Y1 CL PACK
```

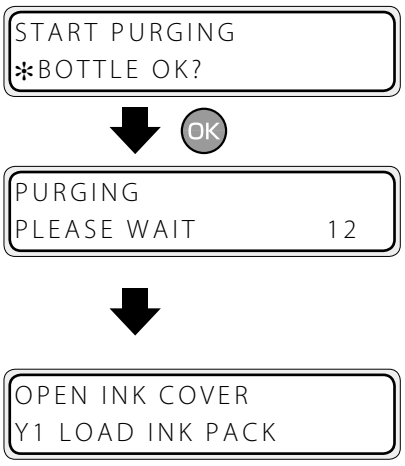
27



Close the ink box cover.

```
CLOSE
INK COVER
```

28



Press the OK key.

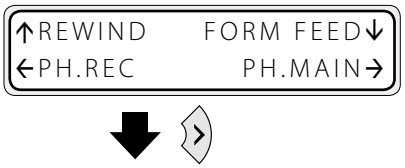
Charging the ink system after head wash

1 Clear out the waste ink bottle.

2

Set the Printer to offline state and press the MENU key.

3



Press the › key.

4

With the ⌄ key scroll to **[#INK SYSTEM OPT]**.

5

Press the OK key.

6

With the ⌄ key scroll to **[✻CHARGE(INKPACK)]**.

7

Press the OK key.

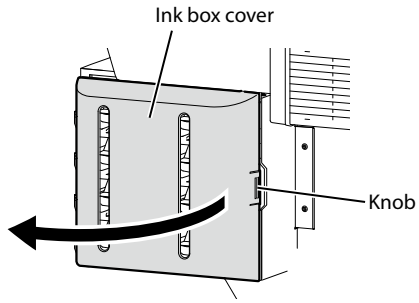
8

```
#INK SYSTEM OPT
*BOTTLE OK?
```

OK

Check that the waste ink bottle is empty, and press the OK key.

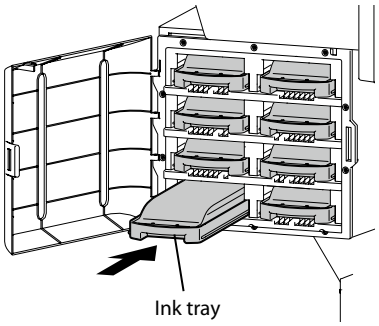
9



Open the ink box cover.

```
OPEN
INK COVER
```

10



Insert the eight ink trays.

```
LOAD
Y1 INK PACK
```

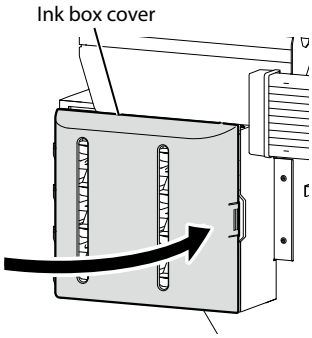
8-color mode

Ink tray	
Lg8	Y 1
M 7	Lm2
Lc6	C 3
K 5	Gy4

4-color mode

Ink tray	
Y 8	Y 1
M 7	M 2
C 6	C 3
K 5	K 4

11



Close the ink box cover.

```
CLOSE
INK COVER
```

12

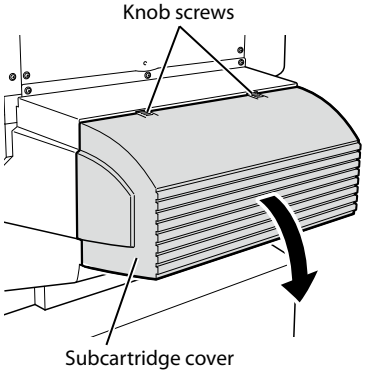
```
START INK CHARGING
*BOTTLE OK?
```

OK

Press the OK key.

```
CHARGING INK
PLEASE WAIT    12
```

13

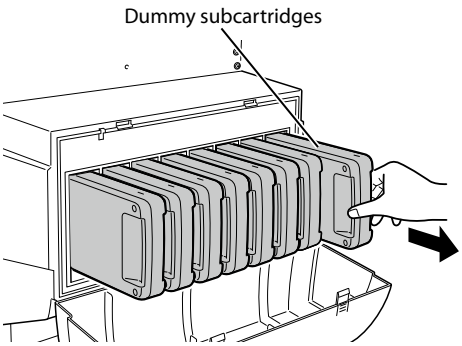


Open the subcartridge cover.

Loosen the two knob screws on the subcartridge cover and open the subcartridge cover.

```
OPEN
SUBCARTRIDGE COVER
```

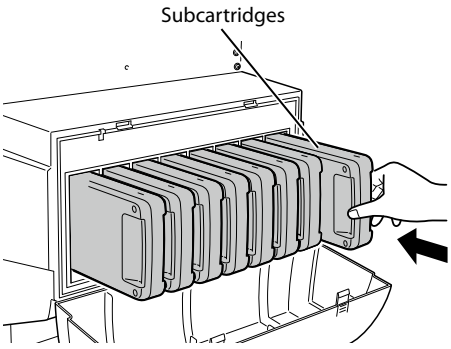
14



Remove the eight dummy subcartridges of the cleaning liquid set.

```
REMOVE
Y1 DUMMY SUBCART
```

15



Set the eight subcartridges.

```
LOAD
SUBCARTRIDGE
```

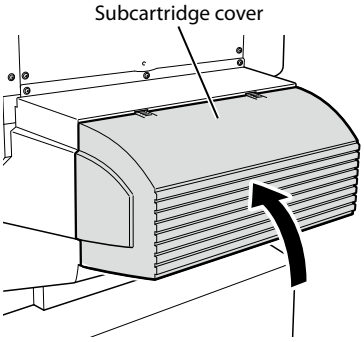
8-color mode

Subcartridge							
Y 1	Lm 2	C 3	Gy 4	K 5	Lc 6	M 7	Lg 8

4-color mode

Subcartridge							
Y 1	M 2	C 3	K 4	K 5	C 6	M 7	Y 8

16



Close the subcartridge cover and tighten the two knob screws.

```
CLOSE
SUBCARTRIDGE COVER
```

17

```
CLEANING
*BOTTLE OK?
```

↓ OK

```
CLEANING
PLEASE WAIT    12
```

↓

```
#INK SYSTEM OPT
*CHARGE(INKPACK)
```

Press the OK key.

A normal cleaning is performed.

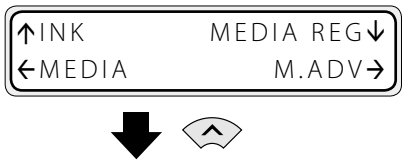
When the normal cleaning is completed, the LCD displays message at the step 7.

Check the Printer status

Check the remaining ink level

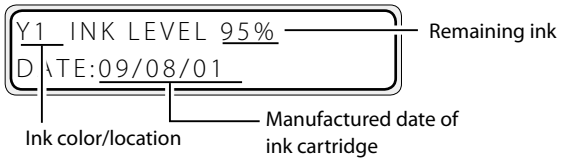
■ Check in offline

1



Set the Printer to offline state and press the ^ key.

2



Press the MENU key to switch from one ink data to the other ink data.

Displayed at intervals of 3 seconds.

When the CANCEL or < key is pressed, the display returns to offline state (menu mode) display.

To move to online state (idle mode) display, press the ONLINE key.

MENU or 3 seconds later

MENU or 3 seconds later

MENU or 3 seconds later

When ink is running out...

- The message below is displayed.

■ Check at printing in online

1

Press the MENU key twice.

MENU×2

2

Press the MENU key to switch from one ink data to the other ink data.

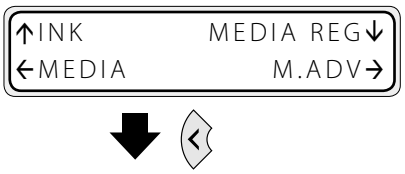
MENU

MENU

Check remaining media length

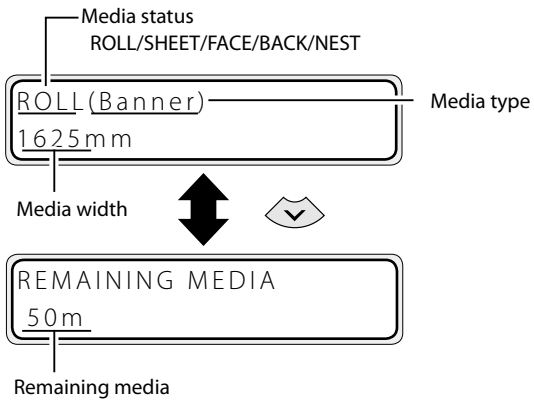
■ Check in offline

1



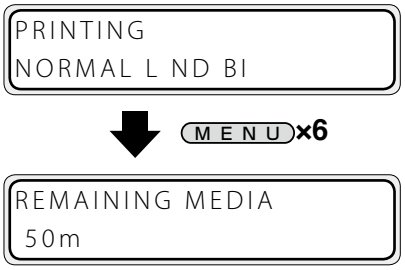
Set the Printer to offline state and press the ◁ key.

2



■ Check at printing in online

1



Press the MENU key six times.

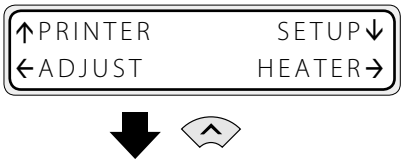
Print reports on the Printer status.

Perform the operation below to print reports on the Printer status and panel settings.

1

Set the Printer to offline state and press the MENU key twice.

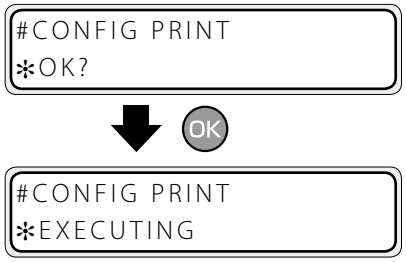
2



Press the △ key.

3

Press the OK key.



Press the OK key.

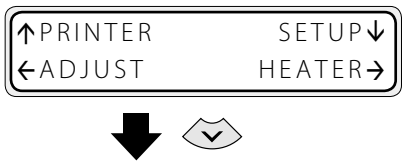
The Printer prints the reports on the Printer status.

Check the USB connection status

1

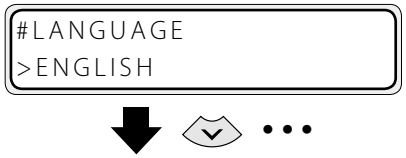
Set the Printer to offline state and press the MENU key twice.

2



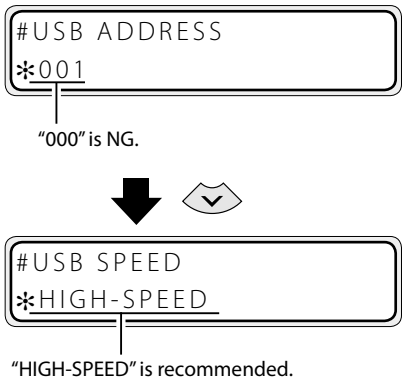
Press the ⌄ key.

3



With the ⌄ key scroll to **[#USB ADDRESS]**.

4



The LCD displays the USB address,

If the LCD displays the USB address as "000", start the USB cable connection over again.

Press the ⌄ key.

The LCD displays the USB speed.

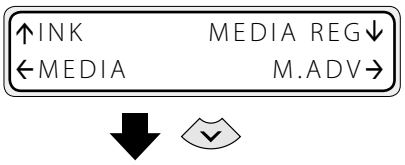
If the LCD displays "FULL-SPEED", print speed is reduced.

Check the firmware version on your Printer

1

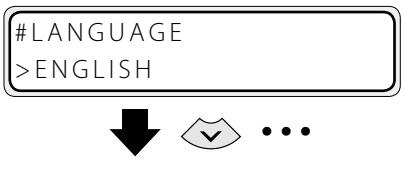
Set the Printer to offline state and press the MENU key twice.

2



Press the ▽ key.

3



With the ▽ key scroll to **[#PRITER FW VER]**.

The LCD displays your Printer's firmware version.

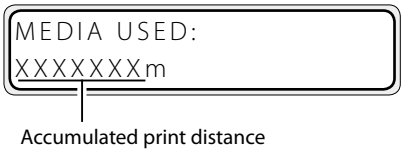
Check the total print distance

The Printer's accumulated print distance is checked with the operation below.

1

Press the MENU key in online state.

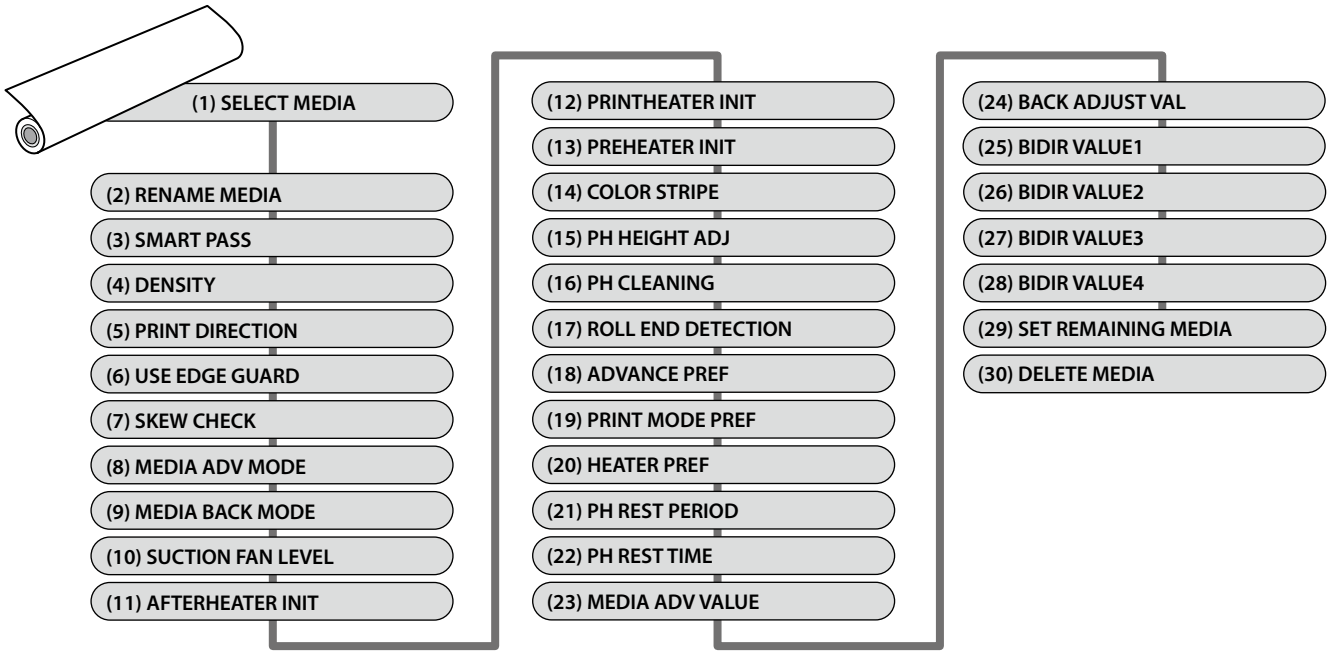
2



Handle the media

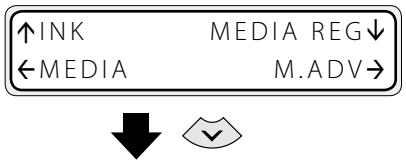
Create a new media preset

As preset media, up to 20 types of media with the information below are registered.



The parameter setting procedure is described below using an example of setting the media advance adjustment value in media number [02].

1

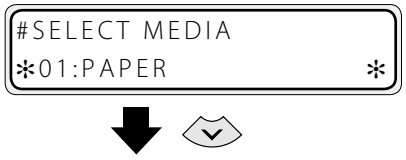


Set the Printer to offline state and press the ▽ key.

2

Press the OK key.

3

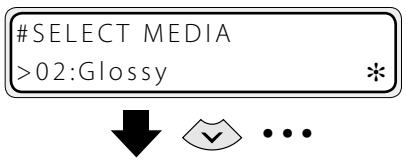


Press ▽ the key.

4

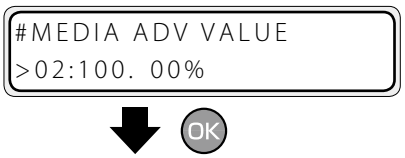
Press the OK key.

5



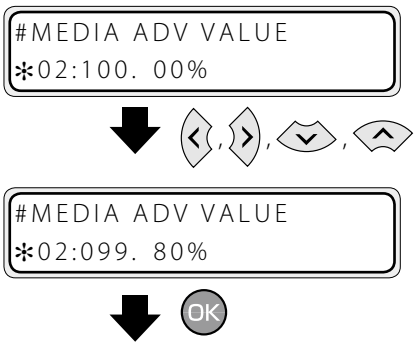
With the ▽ key scroll to **[#MEDIA ADV VALUE]**.

6



Press the OK key.

7



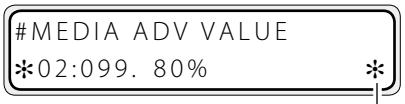
Enter the media advance adjsutment value and press the OK key.

Align the digit with the ‹ or › key and set the value with the ⌄ or ⌃ key.

8

Press the OK key.

9



When the media is already registered, a " ✻ " mark is displayed.

■ Preset media defult values

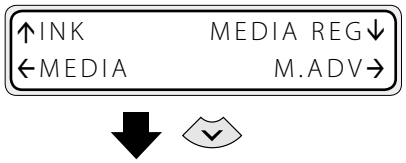
Up to 20 types (media No. 01 to 20) of media can be registered. Registered media can also be deleted or changed. However, media No. 01 (PAPER) and the media initially set in the Printer cannot be deleted. For the preset media 01-05, the initial values are listed below.

Setting \ Media No	01	02	03	04	05
RENAME MEDIA	PAPER	Glossy	Matte	Banner	BLT_B
SMART PASS	LOW	LOW	LOW	LOW	LOW
DENSITY	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
PRINT DIRECTION	BIDIR	BIDIR	BIDIR	BIDIR	BIDIR
USE EDGE GUARD	YES	YES	YES	YES	YES
SKEW CHECK	ON	ON	ON	ON	ON
MEDIA ADV MODE	FWD ONLY	FWD ONLY	FWD ONLY	FWD ONLY	FWD ONLY
MEDIA BACK MODE	BACK & FWD	BACK & FWD	BACK & FWD	BACK & FWD	BACK & FWD
SUCTION FAN LEVEL	NORMAL	NORMAL	NORMAL	LOW	LOW
AFTERHEATER INIT	**°C	45°C	45°C	45°C	45°C
PRINTHEATER INIT	**°C	40°C	40°C	40°C	40°C
PREHEATER INIT	**°C	45°C	45°C	45°C	45°C
COLOR STRIPE	ON	ON	ON	ON	ON
PH HEIGHT ADJ	+0.00mm	+0.00mm	+0.00mm	+0.00mm	+0.00mm
PH CLEANING	START&END	START&END	START&END	START&END	START&END
ROLL END DETECTION	DETECT ONLY	DETECT ONLY	DETECT ONLY	DETECT ONLY	DETECT ONLY
ADVANCE PREF	SOFTWARE	SOFTWARE	SOFTWARE	SOFTWARE	SOFTWARE
PRINT MODE PREF	SOFTWARE	SOFTWARE	SOFTWARE	SOFTWARE	SOFTWARE
HEATER PREF	SOFTWARE	SOFTWARE	SOFTWARE	SOFTWARE	SOFTWARE
PH REST PERIOD	0000 CYCLES (not provided)	0000 CYCLES (not provided)	0000 CYCLES (not provided)	0000 CYCLES (not provided)	0000 CYCLES (not provided)
PH REST TIME	1 second	1 second	1 second	1 second	1 second
MEDIA ADV VALUE	100.00%	*	100.00%	100.00%	100.00%
BACK ADJUST VAL	+0000PULSE	+0000PULSE	+0000PULSE	+0000PULSE	+0000PULSE
BIDIR VALUE1	+00	+00	+00	+00	+00
BIDIR VALUE2	+00	+00	+00	+00	+00
BIDIR VALUE3	+00	+00	+00	+00	+00
BIDIR VALUE4	+00	+00	+00	+00	+00

* The default values are adjusted at the factory shipment.

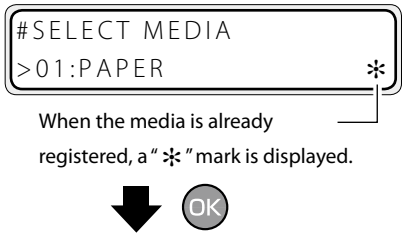
Select a preset media

1



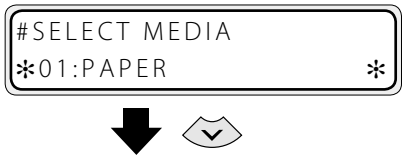
Set the Printer to offline state and press the ▽ key.

2



Press the OK key.

3



Press ▽ the key.

Select your preferred preset media.

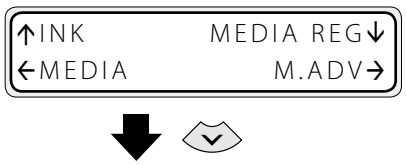
4

Press the OK key.

Minimize the right and left margins

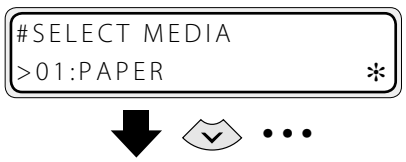
■ Deactivate the media edge guards

1



Set the Printer to offline state and press the ▽ key.

2

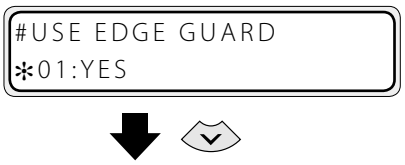


With the ▽ key scroll to **[#USE EDGE GUARD]**.

3

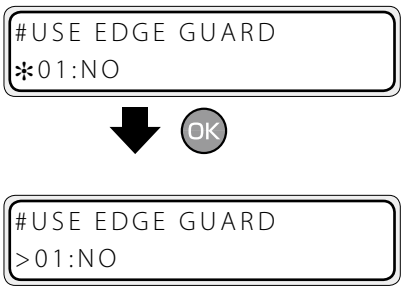
Press the OK key.

4



Press the ▽ key.

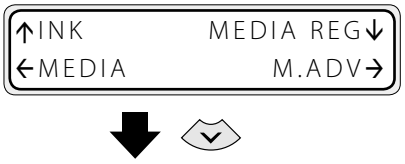
5



Press the OK key.

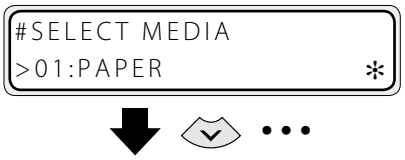
■ Deactivate the color stripe bar

1



Set the Printer to offline state and press the ▽ key.

2

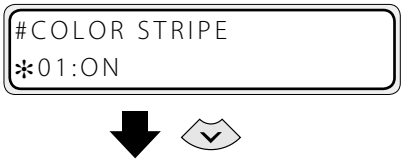


With the ▽ key scroll to **[#COLOR STRIPE]**.

3

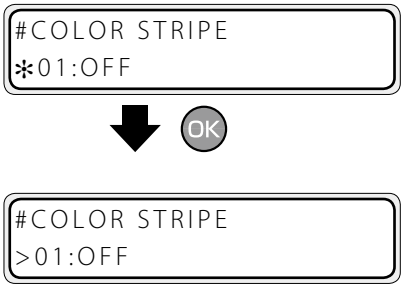
Press the OK key.

4



Press the ▽ key.

5



Press the OK key.

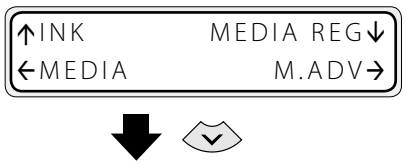
Prevent the media from sticking and wrinkling

■ Decrease the platen suction fan level

The vacuum pressure applied to the media in the printing zone helps to hold the media down on the platen, which keeps the distance from media to print heads constant.

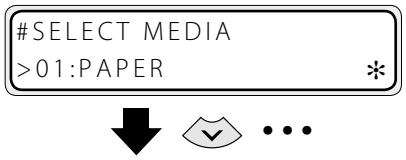
When the media sticks to the platen, set the vacuum pressure to LOW. The LOW vacuum pressure is also effective when your media is so flexible and easily wrinkled.

1



Set the Printer to offline state and press the ▽ key.

2



With the ▽ key scroll to **[#SUCTION FAN LEVEL]**

3

Press the OK key.

4

Press the ▽ key twice.

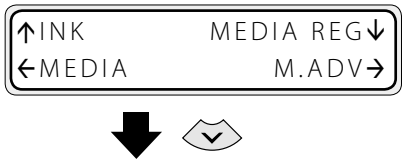
5

Press the OK key.

■ Change the media advance mode

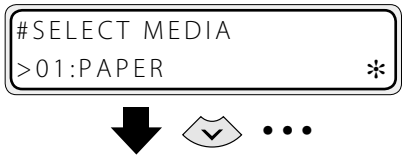
Select the media advance mode according to the media used.

1



Set the Printer to offline state and press the ▽ key.

2



With the ▽ key scroll to **[#MEDIA ADV MODE]**

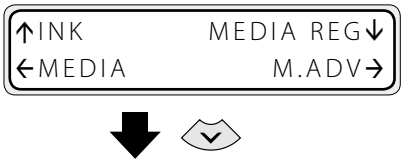
FWD ONLY	Media is fed in the normal advance sequence.
BACK&FWD1	Media is fed in the media adhesion prevention sequence. At the beginning of printing, media peeling is performed during feeding when the pause mode is cancelled.
BACK&FWD2	Media is fed in the media adhesion prevention sequence. Media peeling is performed during feeding at each scan.
FWD WRINKLEFREE	Advance sequence to prevent wrinkles on solvent printing coated paper. If five minutes have elapsed after the end of the last printing, the Printer feeds 30 cm of media before starting to print.

Solve media lifting up problem

The vacuum pressure applied to the media in the printing zone helps to hold the media down on the platen, which keeps the distance from media to print heads constant.

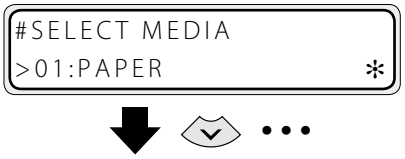
When the media lifts up off the platen, set the vacuum pressure to HIGH.

1



Set the Printer to offline state and press the ▽ key.

2



With the ▽ key scroll to **[#SUCTION FAN LEVEL]**

3

Press the OK key.

4

Press the △ key twice.

5

Press the OK key.

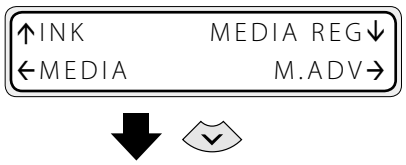
■ Change the print head height

The Printer automatically sets the print head height to the best position when the Printer is turned on or when a media is loaded on the Printer. However, you may need to adjust the position finely as the media rigidity and temperature response are relevant.
To adjust the print head height depending on the loaded media, select MEDIA REG MENU on the operation panel and adjust the print head height.

⚠CAUTION

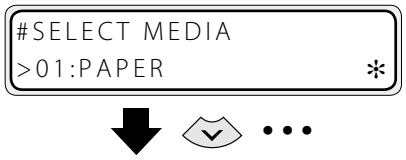
- Adjust the print head height carefully to avoid the print head touching the media. The print head scratched by media causes the poor ink ejection and degrades the print quality.
  On the other hand, a too high print head position also degrades the print quality.
  You are recommended to operate the Printer with the print head height automatically set by the Printer.

1



Set the Printer to offline state and press the ▽ key.

2

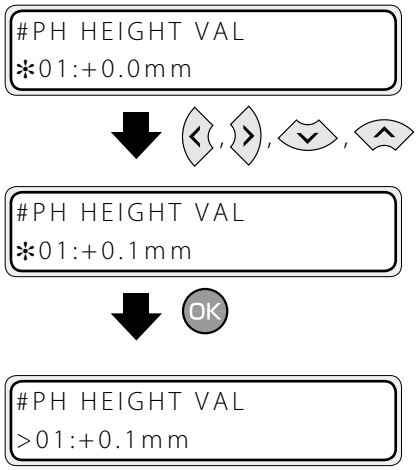


With the ▽ key, scroll to **[#PH HEIGHT VAL]**.

3

Press the OK key.

4

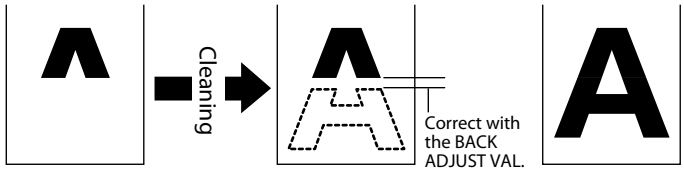
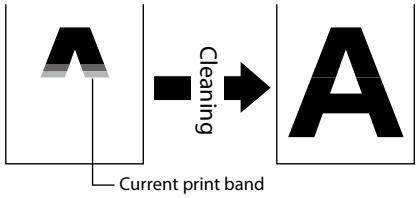


Enter the print head height adjustment value, and press the OK key.

Align the digit with the ◁ or ▷ key and set the value with the ▽ or △ key.
The adjustment value range is: - 0.3 to +1.0 mm.

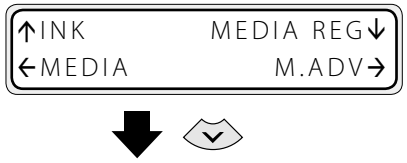
Change the automatic cleaning timing

To ensure the print heads' proper condition, the Printer performs the automatic cleaning. The cleaning mode can be specified depending on the preset media. Select the DURING PRINT or DURING PRINT2 depending on the media characteristics.

START & END	Based on the past print operation history, the Printer performs the automatic cleaning on starting and completing the print operation.
DURING PRINT	The cleaning is performed even while the Printer is printing. In this mode, before the cleaning the Printer completes the print band in process. This mode is recommended when printing on the media subject to the heater temperature, for example, on Vinyl. After the cleaning, the Printer starts the rest of the interrupted print job. Some media shows misalignment at the linkage of the prints before and after the cleaning. In such a case, START & END or DURING PRINT2 is recommended. 
DURING PRINT2	The cleaning is performed even while the Printer is printing. In this mode, the cleaning may start with the current print band interrupted. This mode is recommended when printing on the media less subjected to the heater temperature, for example, on Banner. After the cleaning, the Printer starts the rest of the interrupted print job. This mode shows less misalignment at the linkage than the DURING PRINT. However, the hue after the cleaning may be different from the one before the cleaning. 
OFF	Automatic cleaning is not performed. We recommend using this mode when printing continuously several data files on media with which differences between printouts will be noticeable if automatic cleaning is performed between two data files.However, since cleaning is not performed automatically, determine suitable times to execute cleaning manually.Missing print will happen more frequently if cleaning is not performed for a long time.

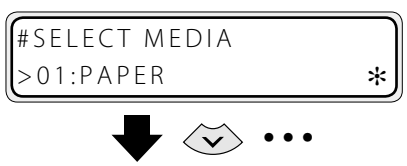
The procedure to change the automatic cleaning timing is explained as follows, taking the procedure to select the automatic cleaning DURING PRINT for the preset media 1 as example.

1



Set the Printer to offline state and press the ▽ key.

2



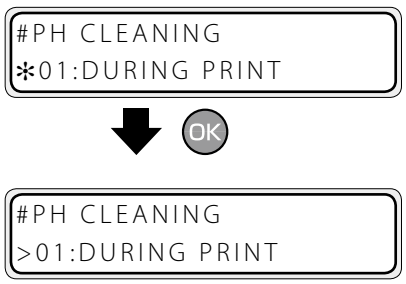
With the ▽ key, scroll to **[#PH CLEANING]**.

3

Press the OK key.

4

Press the ⌄ key.

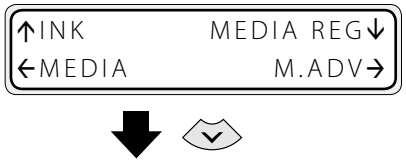
5 

Press the OK key.

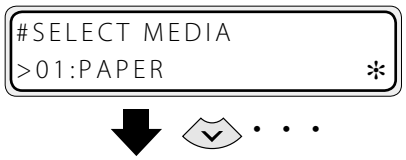
Set smart pass, density and print direction on the Printer's side.

The following describes the procedure to print with smart pass, density and print direction settings made on the Pinter's side instead of the RIP settings.

■ Set print mode preference to front panel

1 

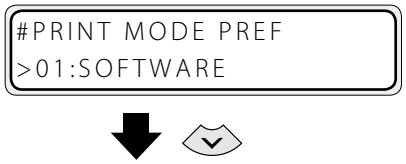
Set the Printer to offline state and press the ⌄ key.

2 

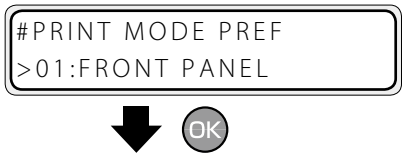
With the ⌄ key, scroll to **[#PRINT MODE PREF]**.

3

Press the OK key.

4 

Press the ⌄ key.

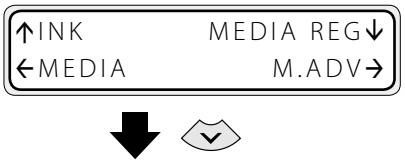
5 

Press the OK key.

6

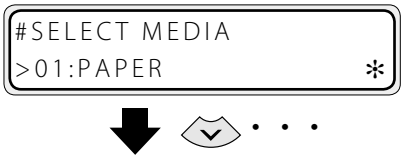
■ Example of setting smart pass to high

1



Set the Printer to offline state and press the ▽ key.

2

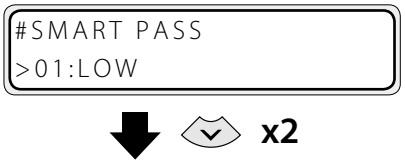


With the ▽ key, scroll to **[#SMART PASS]**.

3

Press the OK key.

4



Press the ▽ key twice.

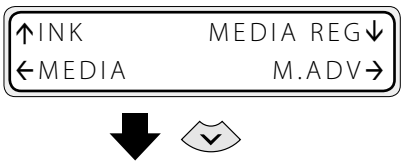
5

Press the OK key.

6

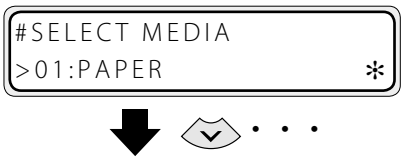
Example of setting density to high density

1



Set the Printer to offline state and press the ▽ key.

2



With the ▽ key, scroll to **[#DENSITY]**.

3

Press the OK key.

4

```
#DENSITY
>01:NORMAL
```

Press the key.

5

```
#DENSITY
>01:HIGH DENSITY
```

Press the OK key.

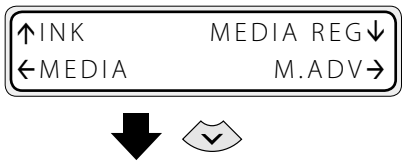
6

```
#DENSITY
>01:HIGH DENSITY
```

■ **Example of setting print direction to unidirectional**

1

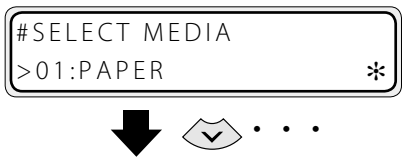
```
↑INK          MEDIA REG↓
←MEDIA          M.ADV→
```



Set the Printer to offline state and press the key.

2

```
#SELECT MEDIA
>01:PAPER                *
```



With the key, scroll to **[#PRINT DIRECTION]**.

3

```
#PRINT DIRECTION
>01:BIDIR
```

Press the OK key.

4

```
#PRINT DIRECTION
>01:BIDIR
```

Press the key twice.

x2

5

```
#PRINT DIRECTION
>01:UNIDIR
```

Press the OK key.

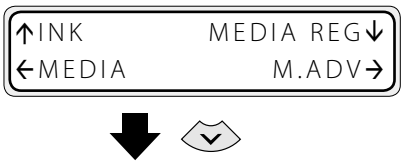
6

```
#PRINT DIRECTION
>01:UNIDIR
```

Copy a preset media type to create a new one

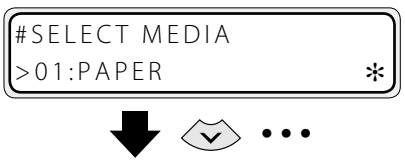
The following describes the procedure to copy the parameter registered in media No. 13 to media No. 20.

1



Set the Printer to offline state and press the ▽ key.

2

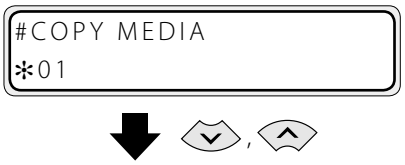


With the ▽ key scroll to **[#COPY MEDIA]**.

3

Press the OK key.

4



Select a copy source with the ▽ or △ key.

Only numbers for media types that already exist are displayed.

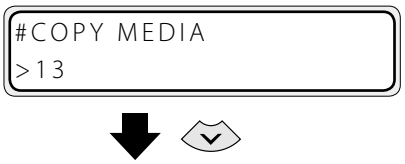
By pressing the CANCEL key the operation returns to the step **3**.

5

Press the OK key.

By pressing the CANCEL key the operation returns to the step **3**.

6

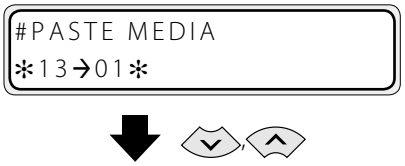


Press the ▽ key.

7

Press the OK key.

8



Select a copy destination with the the ▽ or △ key.

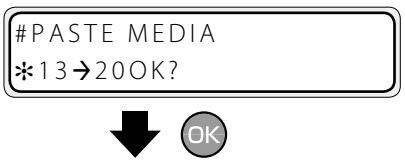
Copy destination numbers 01 to 20 are displayed.

If the number on the right is followed by an asterisk (*), the number displayed already contains media type information.

9

Press the OK key.

10



Press the OK key.

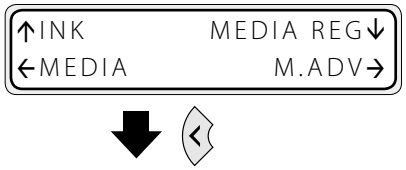
11

The operation was completed.

Change the type of the preset media without reloading the media

The settings of the preset media are also changed.

1



Set the Printer to offline state and press the key.

2

With the key scroll to **[#SELECT MEDIA]**.

3

Press the OK key.

4

Press the key several times to select the desired media.

5

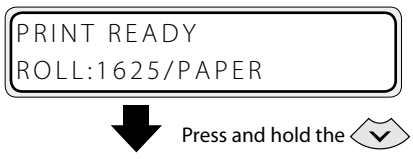
Press the OK key.

6

Feed or rewind media

■ Feed or rewind media in online state (idle mode)

1



Press and hold the or key.

To feed media, press the key.

To rewind media, press the key.

(A cut-sheet media, if installed into the Printer, is discharged from the Printer.)

2 The ▽ key is pressed.

The △ key is pressed.

Release the ▽ key or △ key.

Release the ▽ or △ key.

The Printer stops feeding or rewinding media, and the display returns to online state (idle mode).

■ Feed or rewind media in offline state

1

MENU

Set the Printer to offline state and press the MENU key.

2

Press and hold the ▽ or △ key.

Press and hold the ▽ or △ key.

To feed media, press the ▽ key.

To rewind media, press the △ key.

(A cut-sheet media, if installed into the Printer, is discharged from the Printer.)

3 The ▽ key is pressed.

The △ key is pressed.

Release the ▽ key or △ key.

Release the ▽ or △ key.

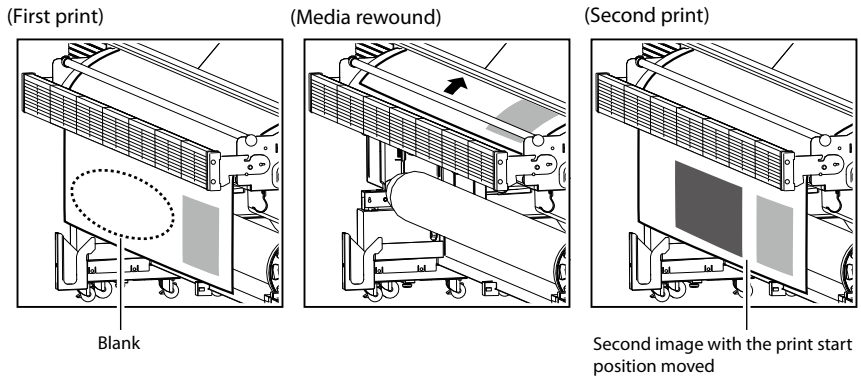
The Printer stops feeding or rewinding media, and the display returns to offline state (menu mode).

⚠CAUTION

- Apply the roll feed unit to backfeed media only for a short distance. For a long distance, carefully apply it and lower the slack position gradually so that the media slack would not reach the floor.
  Besides note that the take-up reel unit does not perform the backfeed operation.
  Do not backfeed media with the take-up reel unit applied.

Move a print start position (nest function)

By moving a print start position, the image is printed on your preferred position.
After printing, rewind the roll, and with this function you can print an image in the blank area.



⚠CAUTION

- Complete this operation as immediately as possible. Otherwise the print heads dry, which may cause ink ejection failure. In such a case perform a cleaning.

1

REWINDING MEDIA

Rewind the media.

*See "**Feed or rewind media**" on the* 🕮 ***page 38***.

⚠CAUTION

- Rewind the media after the printed image completely dries. If the media is rewound while the image is not sufficiently dry, the image may be damaged.

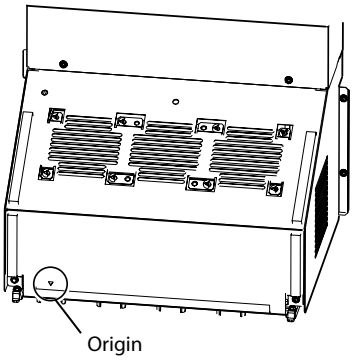
2

PRINT READY
ROLL:1625/PAPER

Press and hold the ‹ key for 1.5 seconds.

Press and hold the ‹ key for 1.5 seconds.

The carriage moves and the nest function is activated.
Align the ▽ mark at the lower left of the carriage cover's front panel with the origin of the next print image.

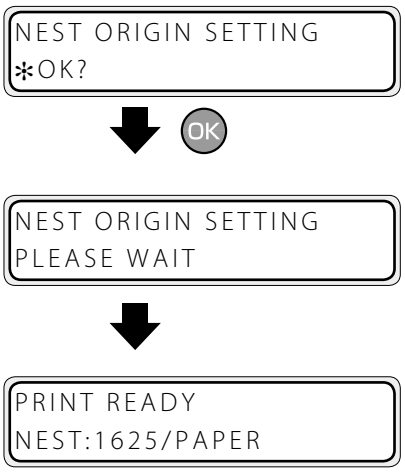


3

NEST ORIGIN SETTING
CARRIAGE MOVING

Move the carriage with the ‹ or › key to the position to be set as an origin.

4



Press the OK key to fix the origin setting.

The carriage returns, and the Printer enters online state (idle mode) and becomes ready to print.

To cancel the origin above, press and hold the › key for 1.5 seconds in the idle mode or raise the pressure control knob. When the origin is cancelled, the display returns from **[NEST]** to **[ROLL]**.

<Display when the origin is cancelled>

Use the media until the very end

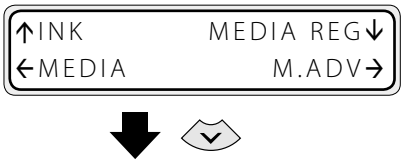
Even when the media end is detected during printing (online mode), a margin remains at the media bottom end. This remaining margin can also be used for printing.

Print quality may be affected when printing near the media bottom end. Use this function only if you can afford this loss in print quality.The tension bar on the supply side must be removed to print near the media bottom end. The media advance adjustment value may not be adequate anymore after the tension bar has been removed, which may affect the print quality.

Set roll end detection to **Action Selection** beforehand.

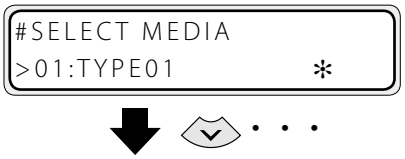
Detect Only	Printing stops when media end is detected.
Action Selection	Printing stops temporarily when media end error is detected. Select **Print** or **Cancel** with the operation panel.

1



Set the Printer to offline state and press the ⌄ key.

2



With the ⌄ key scroll to **[#SELECT MEDIA]**.

3

Press the OK key.

4

Press the ⌄ key.

5

```
#ROLL END DETECTION
*02:ACTION SELECT. *
```

Press the OK key.

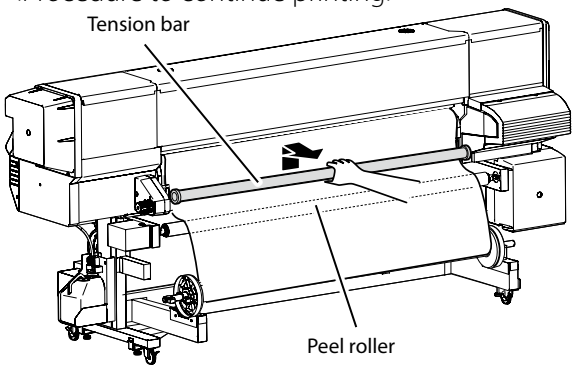
6

```
#ROLL END DETECTION
>02:ACTION SELECT. *
```

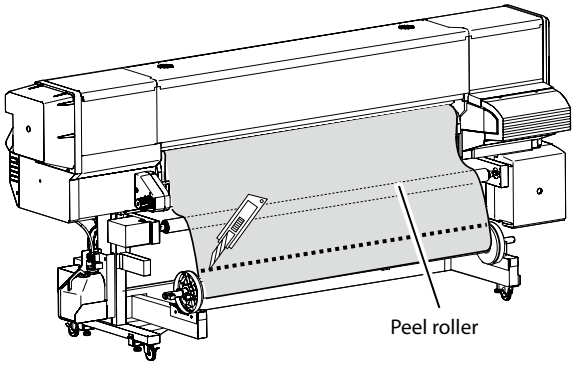
When roll end is detected during printing (online mode), printing stops temporarily and the following screen is displayed.

```
ROLL END DETECTED
PRINT/CANCEL
```

<Procedure to continue printing>



1. Remove the tension bar.



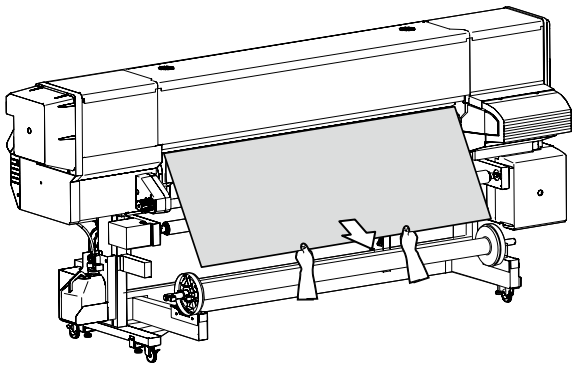
2. Detach the media end from the paper tube using the cutter.

```
ROLL END DETECTED
PRINT/CANCEL
```

Press the OK key.

```
PREHEATING
ROLL:1626/PAPER
```

The printing resumes.



The loss in print quality can be compensated by pulling the media by hand to keep it stretched during printing.

<Procedure to suspend or stop printing>

ROLL END DETECTED
PRINT/CANCEL

CANCEL

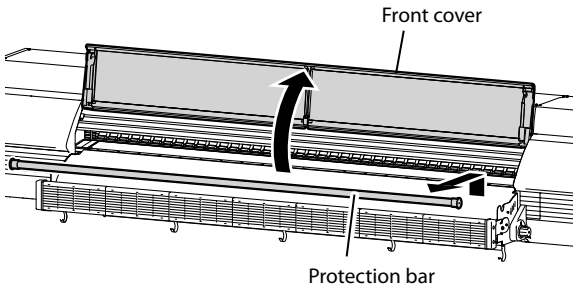
Press the CANCEL key.

NO MEDIA LOADED
LOAD MEDIA

The printing is suspended and the following message is displayed. Load the new media.

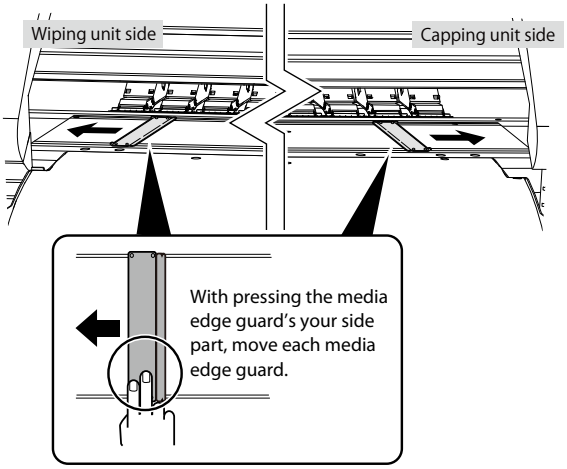
Print on a cut-sheet media

1



Remove the protection bar, and open the front cover.

2



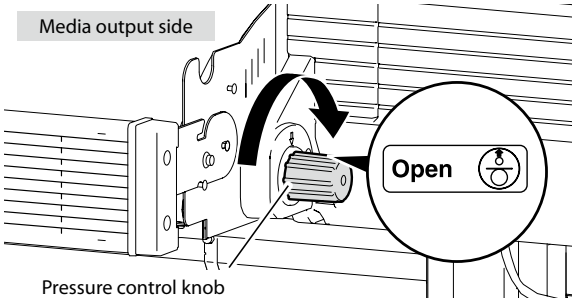
Move the media edge guards to each side.

Move the media edge guards to each side so that they are not under the media.
With pressing the media edge guard's your side part, move each media edge guard.

⚠CAUTION

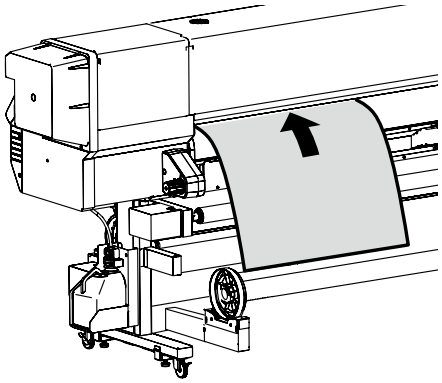
- Be sure to press the media edge guard on your side when moving the media edge guards. You may get injured if your finger slips while strongly pressing the plate's edge.

3



Set the pressure to "Open" by rotating the pressure control knob.

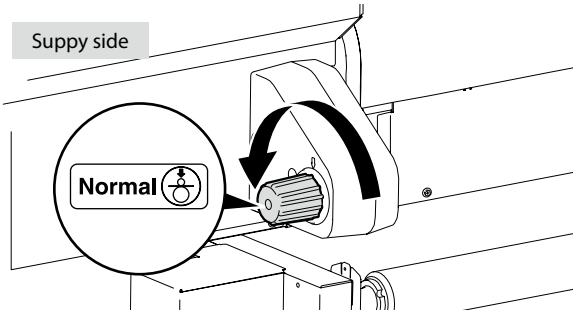
4



Insert a cut-sheet media into the paper feeder slot.

Insert the cut-sheet media so that the media feed sensor is covered with the media.

5

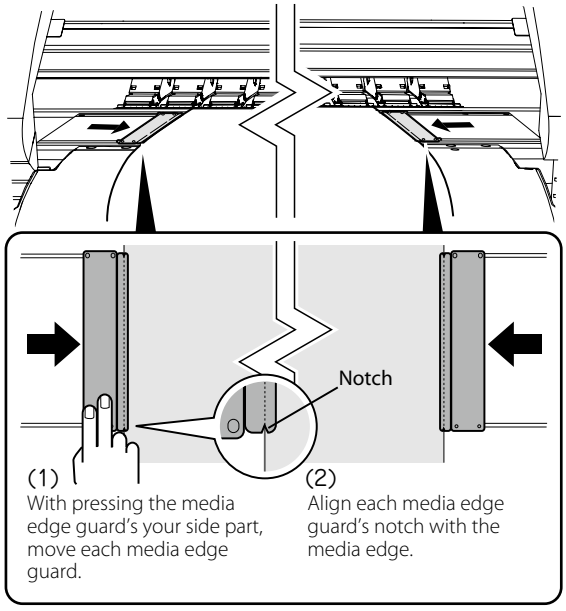


Set the pressure to "Normal" by rotating the pressure control knob.

Point to be checked again

- Check that the media on the platen is not lifted up or wrinkled.

6



Set the media edge guards.

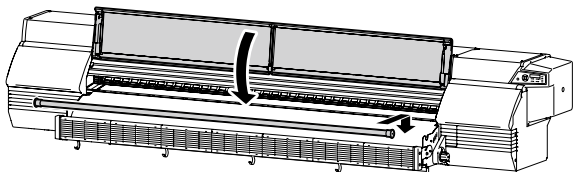
(1) With pressing the media edge guard's your side part, move each media edge guard to the media edge.
(2) Align each media edge guard's notch with the media edge.

Check that:

- The media edge guards are not under the media.
- The thick media, being inserted forcibly, is not jammed under the media edge guards.

⚠CAUTION

- To prevent a media jam, be sure to apply the media edge guards to prevent a media jam.
- Be sure to press the media edge guard on your side when moving the media edge guards. You may get injured if your finger slips while strongly pressing the plate's edge.

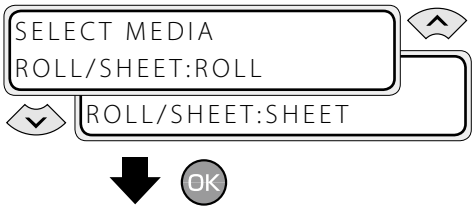
7 

Close the front cover, and then install the protection bar.

8

Press the OK key.

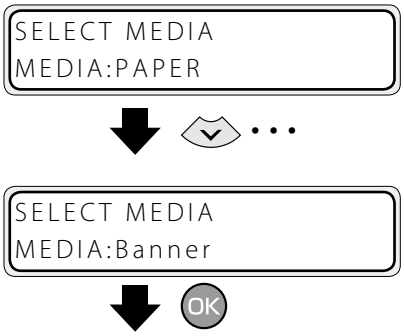
9



Select **[SHEET]** and press the OK key.

(To return to the media selection, press the CANCEL key.)

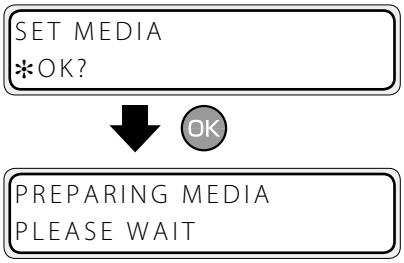
10



Select the type of media, and then press the OK key.

Select a preset media with the ^ or v key.
Here explains the procedure taking banner for example.

11



Press the OK key.

Adjust the head margin before printing

Advance or rewind the media during the preheating time before printing to adjust the margin to the previous printout.

Once printing (scan) has started, this function cannot be used for the current job.

1

Press the ONLINE key during the preheating time before printing.

2 PRINTER PAUSED
ROLL:1626/PAPER

The Printer enters pause mode. Keep the ▽ key pressed.

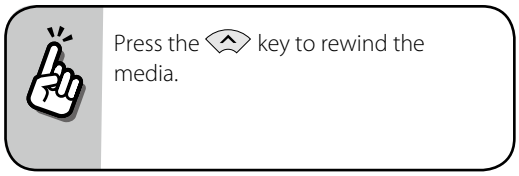
3 FEEDING MEDIA

Release the ▽ key to stop feeding the media.

4 PRINTER PAUSED
ROLL:1626/PAPER
ONLINE

Press the ONLINE key to resume printing.

5 PREHEATING
MAX-QUA L ND UNI



Reinstall the edge guards during printing

If the edge guards are accidentally removed or particles adhere to the media advance path during printing, put the Printer into pause mode to be able to open and close the front cover.

1 PRINTING
MAX-QUA L ND UNI
ONLINE

Press the ONLINE key during printing.

2 PRINTER PAUSED
ROLL:1626/PAPER
Open the front cover

The Printer enters pause mode. Open the front cover.

3 CLOSE
COVER
Close the front cover

Close the cover to return to the Printer pause display.

4 PRINTER PAUSED
ROLL:1626/PAPER
ONLINE

Press the ONLINE key to resume printing.

5 PRINTING
MAX-QUA L ND UNI

Remove some media wrinkles during printing

If the media wrinkles during printing (online mode), put the Printer into pause mode to be able to release the grip.

> Media wrinkles can be partially removed by releasing the grip. However, in that case the media may skew and the print quality may decrease.

1 PRINTING
MAX-QUA L ND UNI

↓ ONLINE

Press the ONLINE key during the preheating time before printing.

2 PRINTER PAUSED
ROLL:1626/PAPER

↓ Release the grip

The Printer enters pause mode. Release the grip.

⚠CAUTION

- When the grip is released, hold the media in your hands to prevent it from skewing.

3 HOLD MEDIA

↓ Set the grip

Set the grip back to return to the Printer pause display.

4 PRINTER PAUSED
ROLL:1626/PAPER

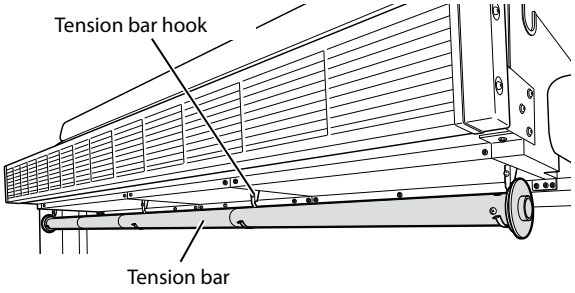
↓ ONLINE

Press the ONLINE key to resume printing.

5 PRINTING
MAX-QUA L ND UNI

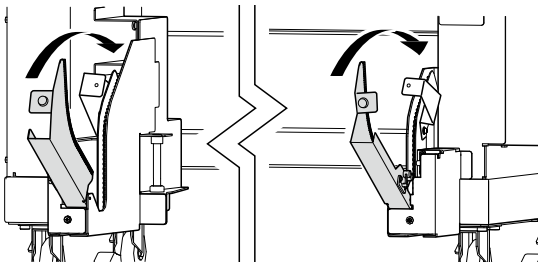
Solve skew in LOOSE winding mode

1



Hook the tension bar to the tension bar hook beforehand.

2



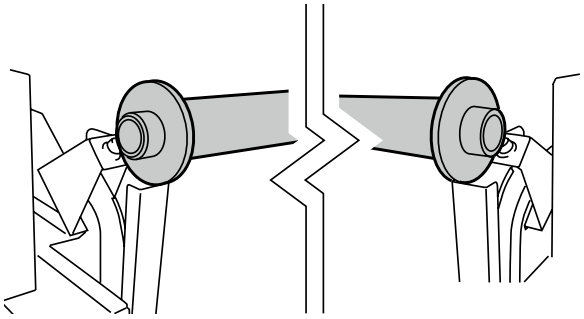
Close the tension bar guide's cover.

Close the cover, and fix the cover by fastening the knob screw.

3 Load the media on the Printer.

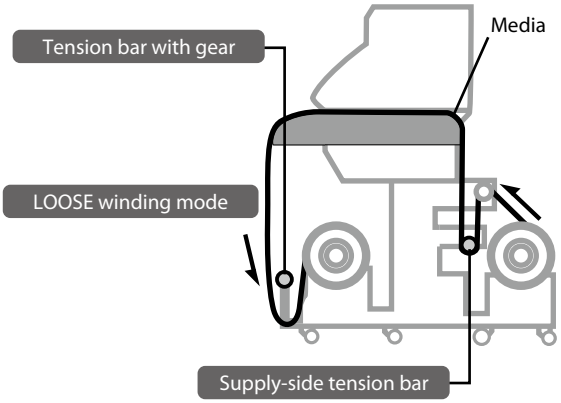
For the procedure, see the *Basic Operation Guide "To take up media in LOOSE winding mode ."*

4



Place the tension bar with gear on the closed tension bar guide.

Place the tension bar carefully to prevent the tension bar with gear from being dropped.



5 Input the data in the software RIP.

To change the Printer's basic settings

Turn the audio warning beep off

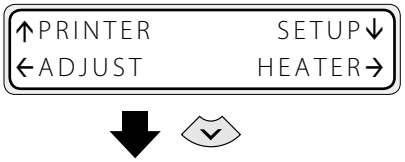
The default beep is set to on. So the Printer issues the audio warning beep when:
- The print heads are not capped during the daily maintenance or print head height adjustment.
- The print heads cannot be capped because of a media jam during the print operation.

With the procedure below the audio warning beep is turned off.

1

Set the Printer to offline state and press the MENU key twice.

2

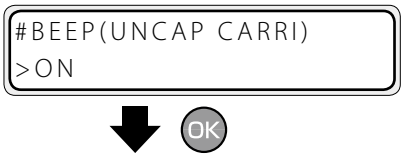


Press the ▽ key.

3

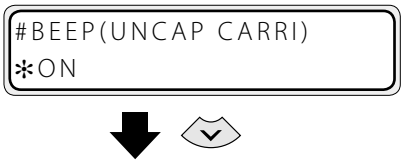
With the ▽ key scroll to **[#BEEP(UNCAP CARRI)]**.

4



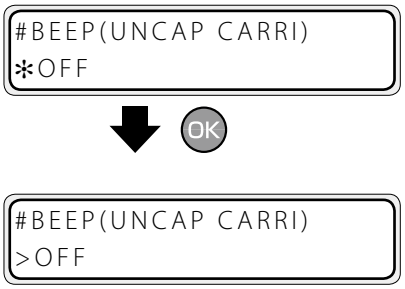
Press the OK key.

5



Press the ▽ key.

6



Press the OK key.

Update the system firmware

To improve the Printer's performance, you are recommended to update the system firmware.

For the procedure, refer to the documents attached to the system firmware.

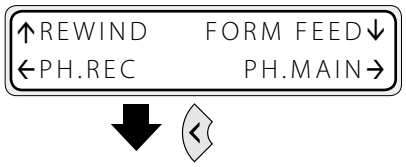
Cleaning options

Perform cleaning only for the specified print head

1

Set the Printer to offline state and press the MENU key.

2



Press the ‹ key.

3

Press the OK key.

4

With the ^ or v key scroll to **[✻STRONG]**.

5

Press the OK key.

6

Select your preferred print head for cleaning.

With the ‹ and › keys, select the print head number. Then with the ^ or v key, display or delete the number. Display it to clean the print head, or delete it not to clean the print head.

8-color mode

Lg8	Y 1
M 7	Lm2
Lc6	C 3
K 5	Gy4

4-color mode

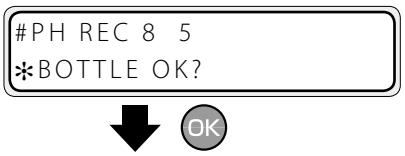
Y 8	Y 1
M 7	M 2
C 6	C 3
K 5	K 4

7

Press the OK key.

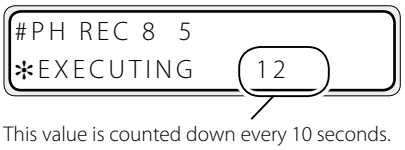
The left LCD display shows that the Printer performs the cleaning only for the print heads 5 and 8.

8



Press the OK key.

Check visually that the waste ink bottle is not full.



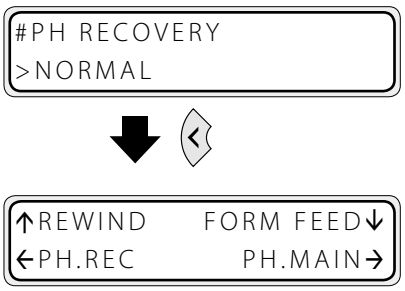
This value is counted down every 10 seconds.

Cleaning is started.

Print head cleaning takes several minutes.

When the cleaning starts, the required time is displayed and the time is counted down every 10 seconds.

9



Press the < key.

The Printer returns to offline state, that is, menu mode.

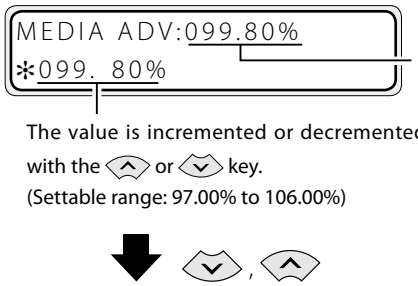
Manage the media advance compensation

Change media advance compensation

1

Press the ^ or v key while **[PRINTING]** is displayed.

2

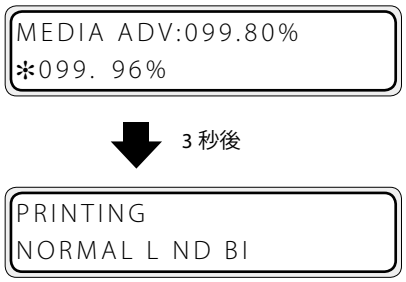


With the ^ or v key, change the media advance compensation.

When the value is changed, it is reflected in printing immediately.

The value displayed at the start of printing does not changeuntil the printing is completed. However, when the cleaning mode is set to "DURING PRINT", the value displayed changes after the cleaning is completed.

3



The changed value is registered and retained.

When no key is operated for three seconds, the display returns to the original one.

Print conditions

On the Printer, print conditions can be configured with the following interrelated settings
- 5 print mode settings
- 3 smart pass settings

in addition to
- 2 density settings.

Configure the print conditions according to the media type, productivity and print quality.

Generally, we recommend printing with **NORMAL** print mode, **MEDIUM** smart pass, and **NORMAL** density settings.
Use other modes and settings to emphasize productivity or print quality.

After changing the print mode
Adjust the media advance compensation again (📖 ***page 85***).

Set **PRINT MODE**

Set the print resolution.
Reduce the resolution to maximize productivity.
Increase the resolution for high definition printout with no visible grains.

Print mode	Resolution	Explanation
MAX SPEED	360dpi x 360dpi x DDP	This is the fastest print mode. Use it to emphasize productivity.
HIGH SPEED	360dpi x 540dpi x DDP	This print mode is balanced between print speed and quality.
NORMAL	540dpi x 540dpi x DDP	This is the normal print mode. Usually, use this print mode.
HIGH QUALITY	720dpi x 720dpi	The quality is emphasized rather than print speed.
MAX QUALITY	900dpi x 900dpi	This print mode has the highest resolution.

⚠CAUTION

- The **NORMAL** print mode is recommended. Use the other modes according to your needs regarding productivity and quality.

Set **SMART PASS**

Set the auto correction level to enhance image quality by correcting unevenness or other print defects. Increase the enhancing effect by setting the correction level to low, medium, or high for the maximum effect.

Smart pass	Explanation
LOW	Maximize productivity in each print mode. The image correction effect is rather low.
MEDIUM	Normally, use this setting for a good balance between speed and image quality.
HIGH	Use this setting when print defects are not corrected with "MEDIUM" to obtain a higher image correction effect.

⚠CAUTION

- The **MEDIUM** smart pass setting is recommended. Use the other settings according to your needs regarding productivity and quality.
- Print speed with **LOW** setting is approximately 50% faster than with **MEDIUM** setting.
- Print speed with **HIGH** setting is approximately 25% slower than with **MEDIUM** setting.
- High density printing was performed with smart pass always set to **HIGH**.
- High density printing is always performed with smart pass set to **HIGH**.
- **LOW** setting changes automatically to **MEDIUM** if printing when the temperature is below 20 °C.

Set **DENSITY**

The print density can be set to **NORMAL** and **HIGH DENSITY**.
The following shows the relationship between the density level for **HIGH DENSITY** and each print mode, when the density for **NORMAL** is assumed to be 1.0.

Print mode	Density	
	NORMAL	HIGH DENSITY
MAX SPEED	1.0	1.0 (*1)
HIGH SPEED	1.0	1.3
NORMAL	1.0	1.5
HIGH QUALITY	1.0	2.0
MAX QUALITY	1.0	2.0

*1 With **MAX SPEED** print mode, the density does not change even when **HIGH DENSITY** is set.

⚠CAUTION

- The print speed does not change between **NORMAL** and **HIGH DENSITY** printing.
- Since a large quantity of ink is used with **HIGH DENSITY**, printing with this setting may generate ink bleeding or drying unevenness. In this case, select a slower print speed.

- Print speed depends on the print mode and smart pass setting. Approximate values are shown in the tables below.
- The indicated print speeds can be reduced by print conditions such as the media width.

IP-7900 print speed (*1)

Print mode	Smart pass (*3)		
	LOW	MEDIUM	HIGH
MAX SPEED	50.0 m^2/h	39.4 m^2/h	28.9 m^2/h
	100.0 m^2/h	79.5 m^2/h	59.4 m^2/h
HIGH SPEED	39.3 m^2/h	25.9 m^2/h	18.9 m^2/h
	79.6 m^2/h	52.7 m^2/h	39.3 m^2/h
NORMAL	28.6 m^2/h	18.1 m^2/h	13.1 m^2/h
	57.1 m^2/h	37.1 m^2/h	27.6 m^2/h
HIGH QUALITY	15.2 m^2/h	9.8 m^2/h	7.0 m^2/h
	31.5 m^2/h	20.6 m^2/h	15.2 m^2/h
MAX QUALITY	9.4 m^2/h	6.0 m^2/h	4.2 m^2/h
	20.0 m^2/h	13.0 m^2/h	9.4 m^2/h

IP-7700 print speed (*2)

Print mode	Smart pass (*3)		
	LOW	MEDIUM	HIGH
MAX SPEED	50.0 m^2/h	35.1 m^2/h	25.7 m^2/h
	100.0 m^2/h	70.9 m^2/h	53.0 m^2/h
HIGH SPEED	35.0 m^2/h	23.0 m^2/h	16.8 m^2/h
	71.0 m^2/h	46.9 m^2/h	35.0 m^2/h
NORMAL	26.4 m^2/h	16.6 m^2/h	12.0 m^2/h
	52.7 m^2/h	34.2 m^2/h	25.4 m^2/h
HIGH QUALITY	13.7 m^2/h	8.8 m^2/h	6.3 m^2/h
	28.5 m^2/h	18.6 m^2/h	13.7 m^2/h
MAX QUALITY	8.6 m^2/h	5.5 m^2/h	3.8 m^2/h
	18.4 m^2/h	11.9 m^2/h	8.6 m^2/h

*1 Print speed values are for full width print on a media of 2642 mm width (104 inches). The values in the upper rows are for 8-color mode, and the values for the lower rows are for the 4-color mode.

*2 Print speed values are for full width print on a media of 1900 mm width (74 inches). The values in the upper rows are for 8-color mode, and the values for the lower rows are for the 4-color mode.

*3 High density printing was performed with smart pass always set to **HIGH**.
Also, the smart pass setting automatically changes from **LOW** to **MEDIUM** if the temperature is under 20°C.

Troubleshoot print quality issues

This section describes the hint for you for one symptom, to get good image quality with the Printer.
Take appropriate actions according to the printout's symptom.
When several actions are described, they are arranged in the order of effectiveness. Therefore, you are recommended to take actions from the top and confirm the effect on the improvement. (Note that all the described actions are not always necessary to solve the problem.)

The print is light.

Cause	Solution
● The density setting does not match.	Set density to **HIGH DENSITY** if high density printing is required, such as when using backlit banner media. (🕮 ***page 35***)
● The operating environment is outside the specification of the Printer.	Raise the ambient temperature to 15°C or more (20 to 25°C recommended) to warm the Printer adequately
● Media is not selected properly.	Check the media selection. (***Basic Operation Guide*** 🕮 ***page 54***)

Missing dots are found at the beginning of printing.

Cause	Solution
● Outside the operating temperature/humidity range	Use the Printer within the operating temperature/humidity range. (***Basic Operation Guide*** 🕮 ***page 17***)
● Obstructions in the nozzle surface path	Check the obstructions in the nozzle surface path, with the order of on: platen, media edge guards, spittoon case, capping unit, and wiper blade, and remove the obstruction and stains.
	Lint or paper fibers caused by a ragged media may touch the print head, which may cause missing dots. Replace the media with a media with no lint or paper fiber.
	Check that the exhaust fan filter is not encrusted with dust. If it is, replace the filter. (***Basic Operation Guide*** 🕮 ***page 77***)

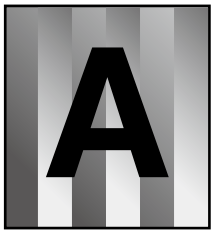
The media is curled or wrinkled.

Cause	Solution
● Outside the operating temperature/humidity range	(1) Use the Printer within the operating temperature/humidity range. * Note that some media may be wrinkled even within the operating temperature and humidity range. (2) Use the proven media.
● The media storage conditions are not the same as the printer operation conditions.	The difference between the media storage conditions and the printer operation conditions may cause the media curled or wrinkled. To prevent it, when carrying the media in storage to the operation area, before printing leave the media for a proper time. *The time depends on the media type and the storage conditions.
● The media was poorly installed.	Check that the media was installed properly with the conditions below. - The installed media is properly parallel to the Printer and the flange. - The operation panel shows the media type correctly. - The supply-side tension bar length is proper and it is placed on the center of the media. - The media winding mode is optimal to the installed media.
● The heater temperature wrinkled the media.	(1) If the media is wrinkled while the Printer is warmed by the heaters, install the media only after the Printer is warmed up by the heaters. (2) Change the heater temperature. Increase or decrease the all three heaters by 5°C.[*1] (3) Use the proven media.
● The media is curled.	(1) Do not use the media curled in the x direction, that is, the vertical direction of the media. (2) Do not use the media curled in the y direction, that is, on the right and left edges of the media. The curl is so excessive that the media edge guards and the suction fan cannot flat the media (3) Use the proven media.

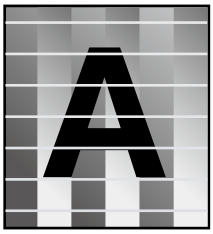
[*1] When the heaters temperature is changed, again adjust the media advance compensation.

White stripes appear on the print.

Basic image



[Symptom A]



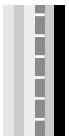
[Cause]
Media advance compensation is not proper.

[Check]
White stripes appear in all colors when a color stripe bar is printed.

[Symptom B]

[Cause]
The print head nozzles are clogged.

[Check]
White stripes appear in some colors when a color stripe bar is printed.



[Symptom C]

[Cause]
The ink does not match well with the media.

Cause	Solution
[Symptom A] ● Media feed is not adjusted properly.	Adjust the media advance compensation. * The media advance compensation differs depending on the winding mode, LOOSE or TENSION.
[Symptom A] ● The media advance accuracy is poor, or is not stable.	(1) Check that the media was installed properly with the conditions below. - The installed media is properly parallel to the Printer and the flange. - The operation panel shows the media type correctly. - The supply-side tension bar length is proper and it is placed on the center of the media. - The media winding mode is optimal to the installed media. - If the media is curled or wrinkled, see the description on the problem, "The media is curled or wrinkled." (2) Adjust the pressure on the media with the pressure control knob.*1 (3) Set smart pass to a higher setting. *1*2 (4) Change the print mode to be slower.*1*2
[Symptom B] ● Print head nozzles are clogged.	(1) Perform a nozzle print, and set nozzle map for the clogged nozzles. (***Basic Operation Guide*** 🕮 ***page 92***) (2) Check the obstructions such as media lint or ink clot in the nozzle surface path including the platen surface, and remove them. (3) If the ink is accumulated or the net tears on the spittoon case surface, replace them. (4) If the media is curled or wrinkled, solve the problem by referring to the description on the problem, "The media is curled or wrinkled." (5) Perform the daily maintenance. * Do not forget to clean the head guard and edge guards. * Be sure to perform the print head cleaning. (6) Perform the CHARGE CAP CL. (7) With the print sheet mount cleaning (***Basic Operation Guide*** 🕮 ***page 96***), clean the print head surface. - Printing with a color stripe bar is effective to prevent missing dots. (🕮 ***page 29***)

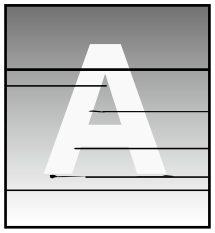
[Symptom C] ● The ink does not match well with the media. (Media with low dot spread rate)	(1) Decrease the all three heaters by 5°C.[*1] * Before starting the print, ensure that the heater temperature was decreased to the target temperature. * With some media, the heater temperature increased would be effective. (2) Set smart pass to a higher setting.[*1*2] (3) Change the print mode to be slower.[*1*2] (4) Use the proven media.

[*1] Adjust the media advance compensation again.
[*2] Note that the print speed differs depending on the mode selected.

Black stripes appear on the print.

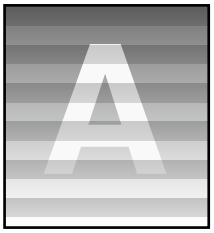
Basic image

[Symptom A]



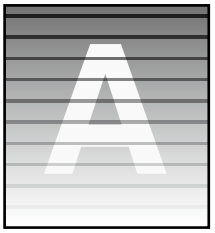
[Cause]
The print head periphery is smeared.

[Symptom B]



[Cause]
At bidirectional printing, the ejected ink's color order in rightward print is different from in leftward print.

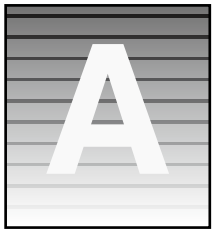
[Symptom C]



* Black stripes appear over the print.

[Cause]
The media advance compensation is not proper.

[Symptom D]



* Black stripes appear partly on the print.

[Cause]
The ink dries too slowly.

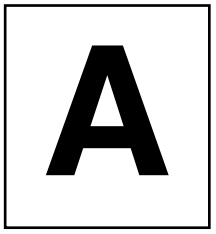
Cause	Solution
[Symptom A] ● The print head periphery is smeared.	(1) Check the obstructions such as media lint or ink clot in the nozzle surface path including the platen surface, and remove them. (2) If the ink is accumulated or the net tears on the spittoon case surface, replace them. (3) If the media is curled or wrinkled, solve the problem by referring to the description on the problem, "The media is curled or wrinkled." (4) Perform the daily maintenance. * Do not forget to clean the head guard and edge guards. * Be sure to perform the print head cleaning. (5) Perform the CHARGE CAP CL. (6) With the print sheet mount cleaning (***Basic Operation Guide*** 🕮 ***page 96***), clean the print head surface.
[Symptom B] ● At bidirectional printing, the ejected ink's color order in rightward print is different from in leftward print.	(1) Set smart pass to a higher setting. *1*2 (2) Change the print mode to be slower. *1*2 (3) Print in unidirectional mode. (4) Use the proven media.
[Symptom C] ● The media advance compensation is not proper.	Adjust the media advance compensation. * The media advance compensation differs depending on the winding mode, LOOSE or TENSION.
[Symptom C] ● The media advance accuracy is poor, or is not stable.	(1) Check that the media was installed properly with the conditions below. - The installed media is properly parallel to the Printer and the flange. - The operation panel shows the media type correctly. - The supply-side tension bar length is proper and it is placed on the center of the media. - The media winding mode is optimal to the installed media. - If the media is curled or wrinkled, see the description on the problem, "The media is curled or wrinkled." (2) Adjust the pressure on the media with the pressure control knob. *1 (3) Set smart pass to a higher setting. *1*2 (4) Change the print mode to be slower. *1*2

[Symptom D] ● The ink dries too slowly. (Mottling or bleeding is found.)	(1) Increase the all three heaters by 5°C.[*1] * Before starting the print, ensure that the heater temperature was decreased to the target temperature. (2) Set smart pass to a higher setting. [*1*2] (3) Change the print mode to be slower.[*1*2] (4) Print in unidirectional mode. (5) Use the proven media. (6) With the RIP software, apply the profile with the low ink amount ejected. * Note that the hue may change by decreasing the ejected ink amount.

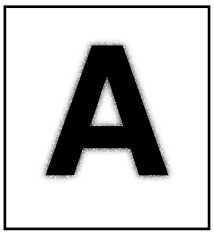
[*1] Adjust the media advance compensation again.
[*2] Note that the print speed differs depending on the mode selected.

The print is smeared.

Basic image

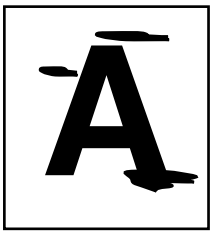


[Symptom A]



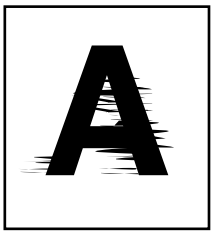
[Cause]
The ink is improperly sprayed from the print head.

[Symptom B]



[Cause]
The ink is drooling.

[Symptom C]



[Cause]
The print head is scratche media.

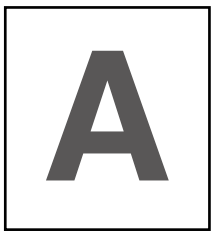
Cause	Solution
[Symptom A] ● The ink is improperly sprayed from the print head.	(1) Use the Printer within the operating temperature/humidity range. (2) Check the "#PH HEIGHT VAL" value. If the value is more than 0, set the value to 0.[*3] (3) Perform the daily maintenance. * Be sure to clean the head guard, edge guards, carriage's bottom face, and the right and left sides of the print head top. (4) Perform print head cleaning (STRONG). (5) Change the print mode to be slower.[*1*2] (6) Perform the CHARGE CAP CL. (7) With the print sheet mount cleaning (***Basic Operation Guide*** 🕮 ***page 96***), clean the print head surface. (8) By decreasing the "#PH HEIGHT VAL" value, lower the print head height.[*3] * Do not decrease the value excessively, as the lowered print head may cause media jams more frequently.
[Symptom B] ● The ink is drooling.	(1) Use the Printer within the operating temperature/humidity range. (2) Check the obstructions such as media lint or ink clot in the nozzle surface path including the platen surface, and remove them. (3) If the ink is accumulated or the net tears on the spittoon case surface, replace them. (4) If the media is curled or wrinkled, solve the problem by referring to the description on the problem, "The media is curled or wrinkled." (5) Perform the daily maintenance. * Do not forget to clean the head guard and edge guards. * Be sure to perform print head cleaning. (6) Perform the CHARGE CAP CL. (7) With the print sheet mount cleaning (***Basic Operation Guide*** 🕮 ***page 96***), clean the print head surface. (8) Note that some media are staticky, on which by static electricity the ink droplets on the nozzle surface may cause the ink drooling. Use the proven media. (9) With some banner media, feathery media edge scratches the print head, which may cause the ink drooling.

[Symptom C] ● The print head is scratched by media.	(1) Check that the media was installed properly with the conditions below. - The installed media is properly parallel to the Printer and the flange. - The operation panel shows the media type correctly. - The supply-side tension bar length is proper and it is placed on the center of the media. - The media winding mode is optimal to the installed media. - If the media is curled or wrinkled, see the description on the problem, "The media is curled or wrinkled." (2) Check the obstructions such as media lint or ink clot in the nozzle surface path including the platen surface, and remove them. (3) If the ink is accumulated or the net tears on the spittoon case surface, replace them. (4) Perform the daily maintenance. * Do not forget to clean the head guard and edge guards. * Be sure to perform print head cleaning. (5) Perform the CHARGE CAP CL. (6) With the print sheet mount cleaning (***Basic Operation Guide*** 🕮 ***page 96***), clean the print head surface.

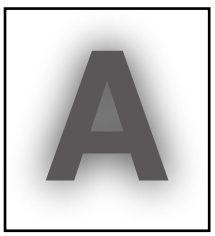
*1 Adjust the media advance compensation again.
*2 Note that the print speed differs depending on the mode selected.
*3 Adjust the bidirectional print positions.

Edges of objects are blurred.

Basic image

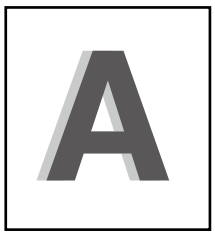


[Symptom A]



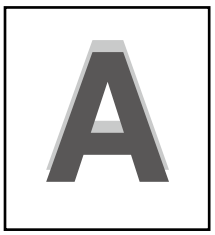
[Cause]
The ink dries too slowly.
The ink is ejected excessively.

[Symptom B]



[Cause]
The print head position is misaligned.
The bidirectional print position is misaligned.

[Symptom C]

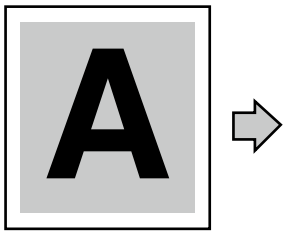


[Cause]
The media advance compensation is not proper.

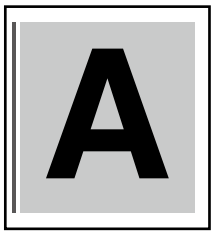
Cause	Solution
[Symptom A] ● The ink dries too slowly. ● The ink is ejected excessively.	(1) Decrease the all three heaters by 5°C.[*1] * Before starting the print, ensure that the heater temperature was decreased to the target temperature. (2) Set smart pass to a higher setting.[*1*2] (3) Change the print mode to be slower.[*1*2] (4) Print in unidirectional mode. (4) If density is set to "HIGH DENSITY", change it to **NORMAL**. (📖 ***page 35***) (5) Use the proven media. (6) With the RIP software, apply the profile with the low ink amount ejected. * Note that the hue may change by decreasing the ejected ink amount.
[Symptom B] ● The print head position is misaligned. ● The bidirectional print position is misaligned.	(1) Adjust the print head position. (📖 ***page 96***) (2) Adjust the bidirectional print positions. (📖 ***page 88***)
[Symptom C] ● The media advance compensation is not proper.	Adjust the media advance compensation. * The media advance compensation differs depending on the winding mode, LOOSE or TENSION.
[Symptom C] ● The media advance accuracy is poor, or is not stable.	(1) Check that the media was installed properly with the conditions below. - The installed media is properly parallel to the Printer and the flange. - The operation panel shows the media type correctly. - The supply-side tension bar length is proper and it is placed on the center of the media. - The media winding mode is optimal to the installed media. - If the media is curled or wrinkled, see the description on the problem, "The media is curled or wrinkled." (2) Adjust the pressure on the media with the pressure control knob.[*1] (3) Set smart pass to a higher setting.[*1*2] (4) Change the print mode to be slower.[*1*2]

A vertical barding appears at the print's edge.

Basic image

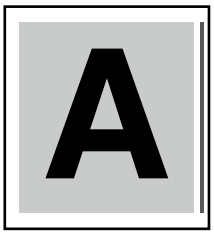


[Symptom A]



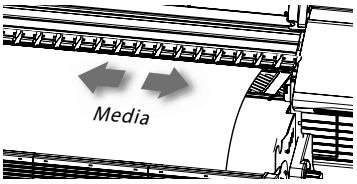
[Cause]
On the platen, the contacting point of the media left edge and the media edge guard is near the platen's vacuum hole.

[Symptom B]



[Cause]
On the platen, the contacting point of the media right edge and the media edge guard is near the platen's vacuum hole.

Cause	Solution
[Symptom A] [Symptom B] ● When, on the platen, the contacting point of a media edge and the media edge guard is near the platen's vacuum hole, the Printer may suck the ejected ink partially between the media and the media edge guard. As a result, a vertical banding may appear.	(1) Shift the media so that the contacting point of the media edge and the media edge guard on the platen does not come close to the vacuum hole.

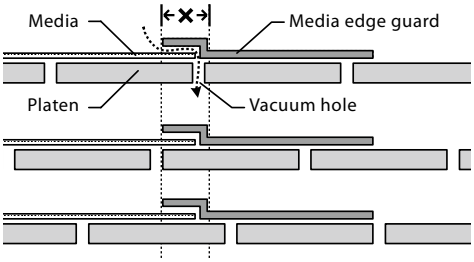


* Avoid the platen's vacuum hole for this area.

An example of media position when a vertical banding appear

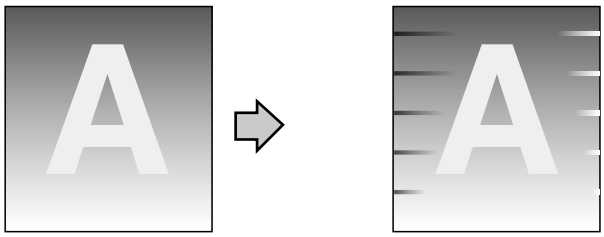
Example (1) of shifting the media position when a vertical banding appear

Example (2) of shifting the media position when a vertical banding appear



Different bandings appear on the print's right and left.

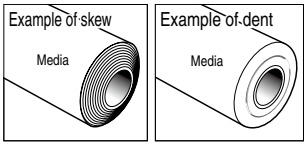
Basic image

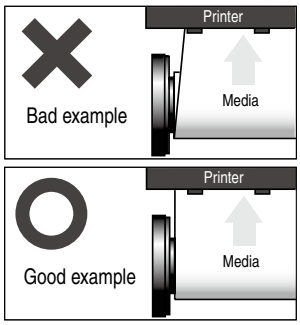


[Cause]
The media is skewed.

Cause	Solution

● The skewed media is fed.





(1) Check that the media condition is good. If the media roll is dent or wound telescopically, replace the roll with a good one.

(2) Check that the media was installed properly with the conditions below.

- The installed media is properly parallel to the Printer and the flange.
- The operation panel shows the media type correctly.
- The supply-side tension bar length is proper and it is placed on the center of the media.
- The media winding mode is optimal to the installed media.
- If the media is curled or wrinkled, see the description on the problem, "The media is curled or wrinkled."

(3) Check that the takeup-side media shows no irregular winding. If an irregular winding is found, re-install the media on the Printer and onto the take-up reel unit.

(4) Adjust the pressure on the media with the pressure control knob.[*1]

(5) Change the tension bar length.[*1]

(6) Use the proven media.

[*1] Adjust the media advance compensation again.

Clear missing dots (nozzle clogging)

If the missing dots persist after the daily maintenance and after setting NOZZLE MAP, perform the operation below.

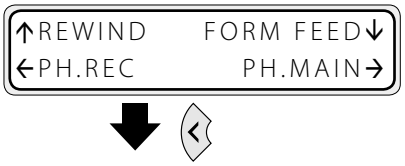
Strong cleaning	Perform the strong cleaning when the missing dots persist after the normal cleaning.
▼▼▼ *Perform the **NOZZLE PRINT***	
Fill the cap with ink	To clear the nozzle clogging, fill the cap with ink and moisten the print head nozzle surface with ink. After this operation, hold the Printer for 1 to 2 hours.
▼▼▼ *Perform the **NOZZLE PRINT***	
Fill the cap with wiper cleaning liquid	To clear the nozzle clogging, fill the cap with wiper cleaning liquid. After this operation, hold the Printer for 12 to 18 hours.
▼▼▼ *Perform the **NOZZLE PRINT***	
Perform sheet mount cleaning	Clean the print heads surfaces with sheet mount cleaning (📖 ***Basic Operation Guide page 96***). (Generally perform sheet mount clean approximately once per month.)

Strong cleaning

1

Set the Printer to offline state and press the MENU key.

2



Press the ‹ key.

3

Press the OK key.

4

Press the ⌄ key.

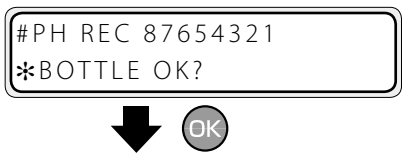
5

Press the OK key.

6

Press the OK key.

7



Press the OK key.

Check visually that the waste ink bottle is not full.

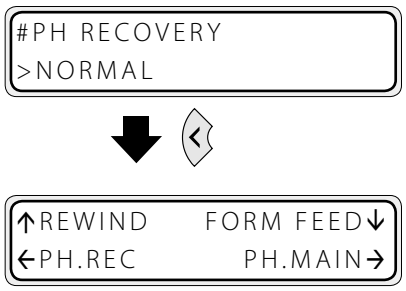
This value is counted down every 10 seconds.

Cleaning is started.

Print head cleaning takes several minutes.

When the cleaning starts, the required time is displayed and the time is counted down every 10 seconds.

8



Press the < key.

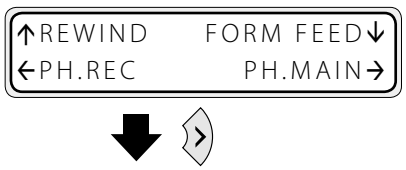
The display returns offline state (menu mode).

Fill the cap with ink

1

Set the Printer to offline state and press the MENU key.

2



Press the > key.

3

With the ⌄ key scroll to **[#WASH PRINTHEADS]**.

4

Press the OK key.

5

```
#WASH PRINTHEADS
✻OK?
```

↓ OK

Press the OK key.

```
#WASH PRINTHEADS
✻EXECUTING
```

Hold the Printer for 1 to 2 hours.

After the Printer was held for 1 to 2 hours, perform the normal cleaning.

Fill the cap with wiper cleaning liquid

1

```
↑INK          MEDIA REG↓
←MEDIA          M.ADV→
```

↓ MENU

Set the Printer to offline state and press the MENU key.

2

```
↑REWIND      FORM FEED↓
←PH.REC        PH.MAIN→
```

↓ >

Press the > key.

3

```
#CAP CLEANING
>
```

↓ ∨

Press the ∨ key.

4

```
#INK SYSTEM OPT
>STORE INK SYS
```

↓ OK

Press the OK key.

5

```
#INK SYSTEM OPT
✻STORE INK SYS
```

↓ ∨ • • •

With the ∨ key scroll to **[✻CHARGE CAP CL]**.

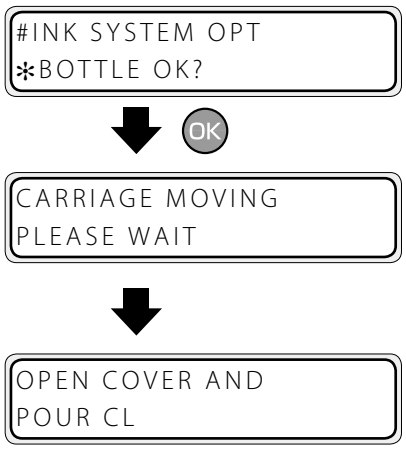
6

```
#INK SYSTEM OPT
✻CHARGE CAP CL
```

↓ OK

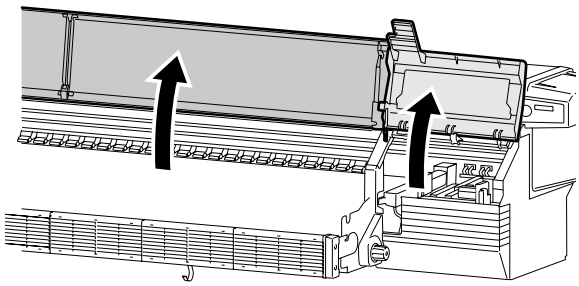
Press the OK key.

7



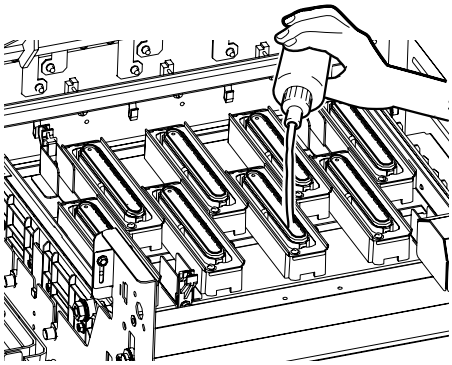
Press the OK key.

8



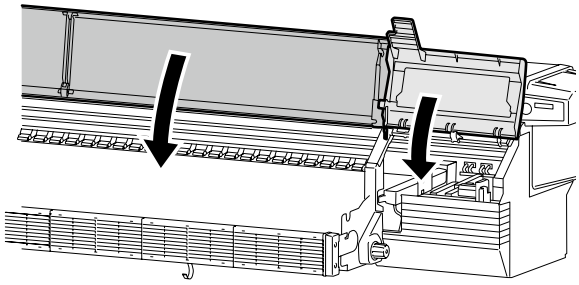
Open the front cover, and then open the cap cover.

9



Add the wiper cleaning liquid to the cap.

10



Close the capping cover and the front cover.

The carriage returns automatically to the home position.

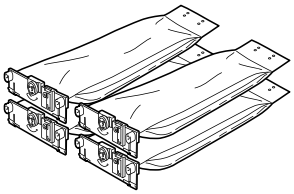
11 Hold the Printer for 12 to 18 hours.

After the Printer was held for 12 to 18 hours, before printing perform the normal cleaning.

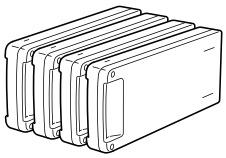
Switch between 4-color mode and 8-color mode

Required items Before the operation check that the items below are prepared.

Color replacement kit (IP7-122)

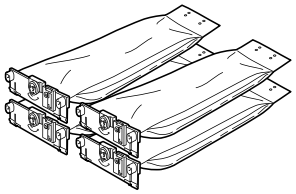


Cleaning liquid pack

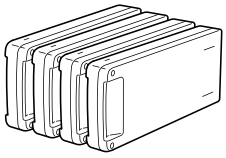


Dummy subcartridge

- **The OKI Data Infotech's color replacement kit is intended for a single use only.** Before the mode switch operation, prepare a new color replacement kit.



Ink packs after the mode switch operation

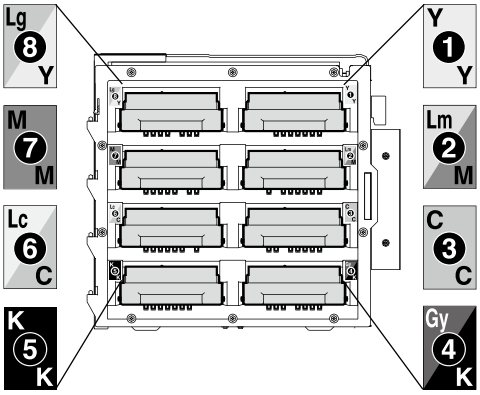


Subcartridges after the mode switch operation

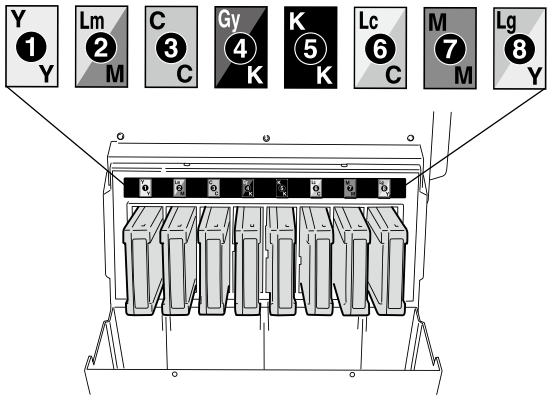
To switch 8-color mode to 4-color mode:
Prepare the ink packs for Y, M, C, and K and the subcartridges.
To switch 4-color mode to 8-color mode:
Prepare the ink packs for Lm, Gy, Lc, and LGy and the subcartridges.

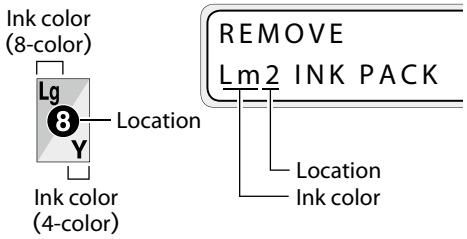
Ink slots assignment Install each ink pack's tray and subcartridge at its predetermined position.

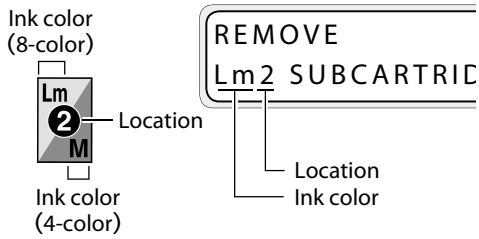
Ink tray



Subcartridge



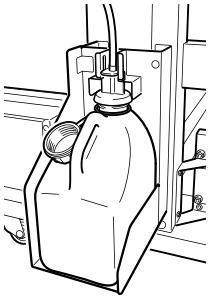




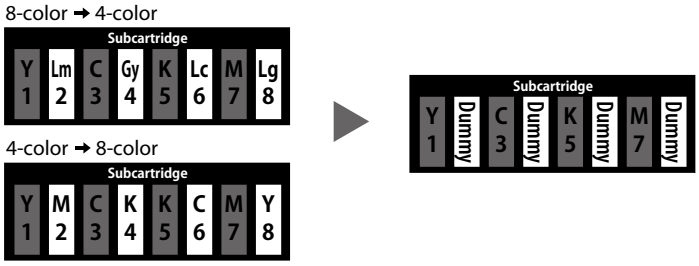
To facilitate this work, set the cleaning liquid packs to the optional ink trays in advance.

■ Workflow

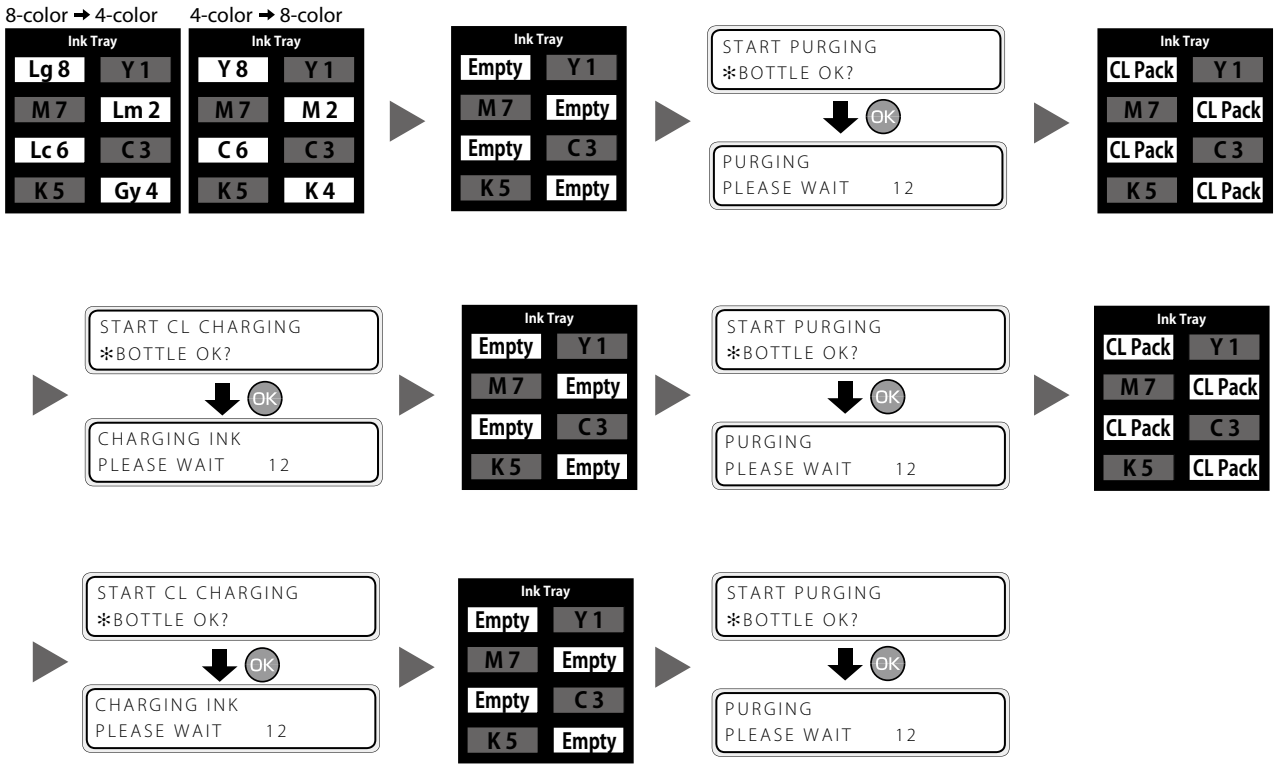
Step1 Install an empty waste ink bottle.



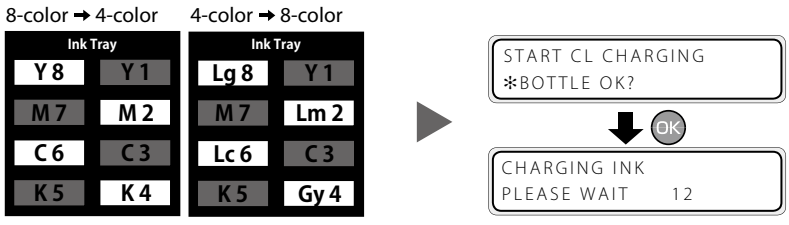
Step2 Replace the four subcartridges with four dummy subcartridges.



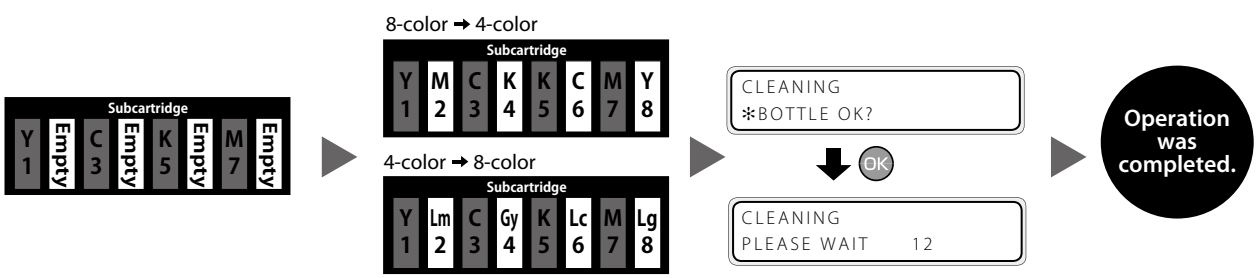
Step3 Remove the four ink trays and perform the cleaning twice.



Step4 Install the ink packs with the assignment after the color mode switch operation.



Step5 Replace the four dummy subcartridges with the four subcartridges.



■ Procedure to switch color mode

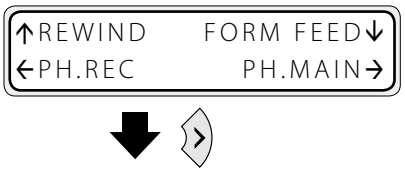
STEP 1 Clear out the waste ink bottle.

STEP 2 Replace the four subcartridges with four dummy subcartridges.

1

Set the Printer to offline state and press the MENU key.

2

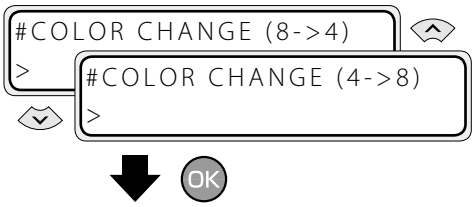


Press the > key.

3

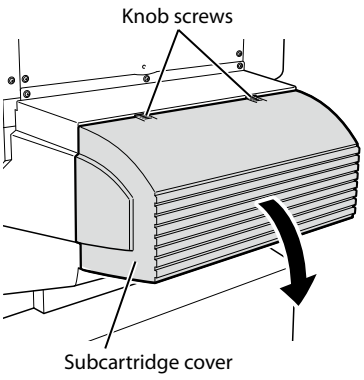
With the ∨ key scroll to [#COLOR CHANGE].

4



With the ∧ or ∨ key, select the color mode switch menu, and press the OK key.

5

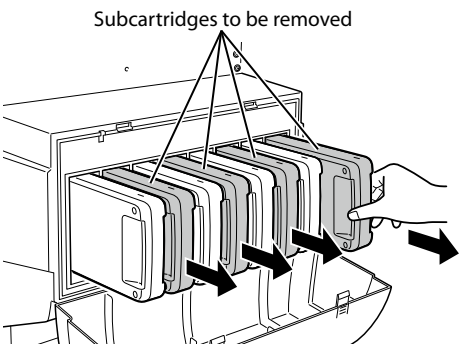


Open the subcartridge cover.

Loosen the two knob screws on the subcartridge cover and open the subcartridge cover.

```
OPEN
SUBCARTRIDGE COVER
```

6



Remove the four subcartridge.

To switch 8-color mode to 4-color mode:

Remove the subcartridges for Lm2, Gy4, Lc6, and Lg8.

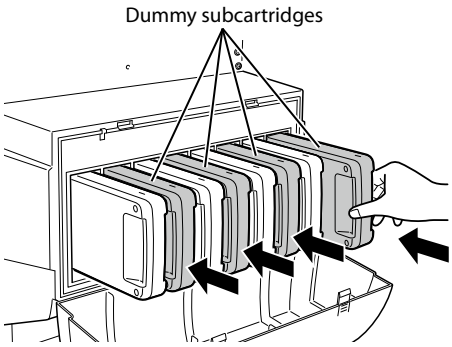
```
REMOVE
Lm2 SUBCARTRIDGE
```

To switch 4-color mode to 8-color mode:

Remove the subcartridges for M2, K4, C6, and Y8.

```
REMOVE
M2  SUBCARTRIDGE
```

7



Set the dummy subcartridges of the color replacement set.

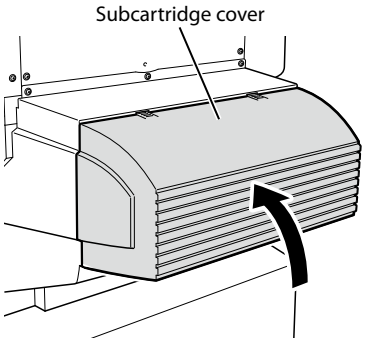
To switch 8-color mode to 4-color mode:
Set the subcartridges for Lm2, Gy4, Lc6, and Lg8.

```
LOAD
Lm2 DUMMY SUBCART
```

To switch 4-color mode to 8-color mode:
Set the subcartridges for M2, K4, C6, and Y8.

```
LOAD
M2  DUMMY SUBCART
```

8

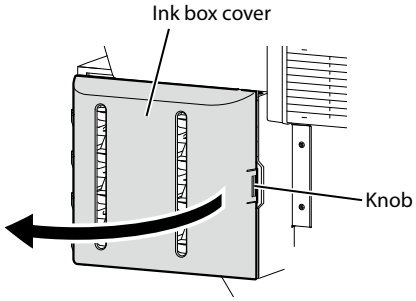


Close the subcartridge cover and tighten the two knob screws.

```
CLOSE
SUBCARTRIDGE COVER
```

STEP 3 Remove the four ink trays and perform the cleaning twice.

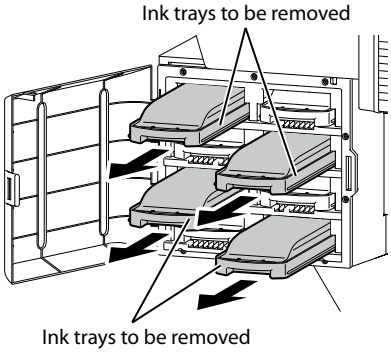
1



Open the ink box cover.

```
OPEN
INK COVER
```

2



Remove the four ink trays.

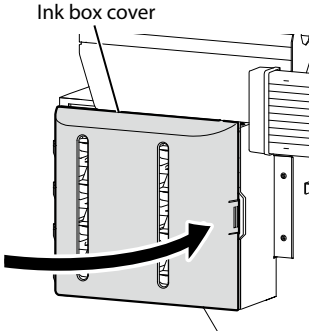
To switch 8-color mode to 4-color mode:
Remove the ink trays for Lm2, Gy4, Lc6, and Lg8.

```
REMOVE
Lm2 INK PACK
```

To switch 4-color mode to 8-color mode:
Remove the ink trays for M2, K4, C6, and Y8.

```
REMOVE
M2  INK PACK
```

3



Close the ink box cover.

```
CLOSE
INK COVER
```

4

START PURGING
✻BOTTLE OK?

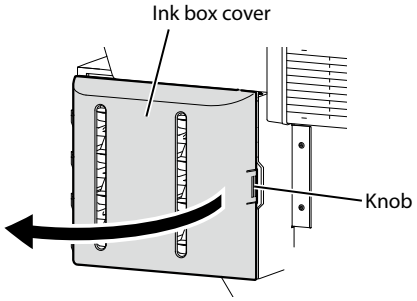
OK

PURGING
PLEASE WAIT 12

Press the OK key.

Run the ink system purge routine.

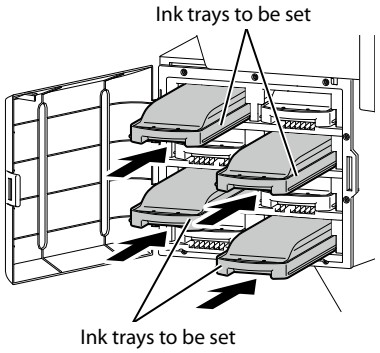
5



Open the ink box cover.

OPEN
INK COVER

6



Insert the ink trays with cleaning liquid packs into the slots of the ink box.

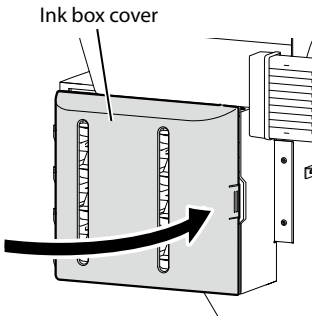
To switch 8-color mode to 4-color mode:
Set the ink trays for Lm2, Gy4, Lc6, and Lg8.

LOAD
Lm2 CL PACK

To switch 4-color mode to 8-color mode:
Set the ink trays for M2, K4, C6, and Y8.

LOAD
M2 CL PACK

7



Close the ink box cover.

CLOSE
INK COVER

8

START CL CHARGING
✻BOTTLE OK?

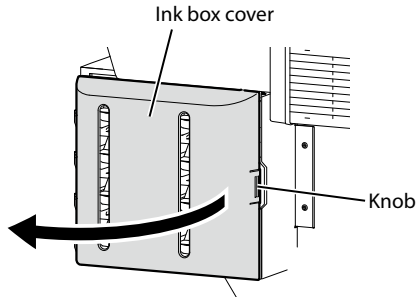
OK

CHARGING INK
PLEASE WAIT 12

Press the OK key.

Charge the ink system with the cleaning liquid, and clean the ink inside the Printer.

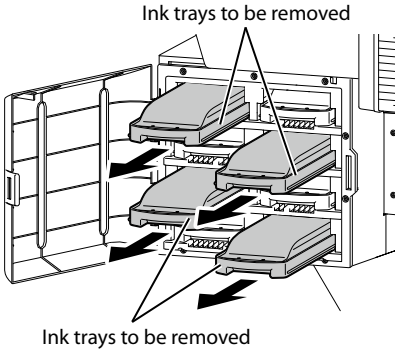
9



Open the ink box cover.

```
OPEN
INK COVER
```

10



Remove the ink trays with cleaning liquid packs into the slots of the ink box.

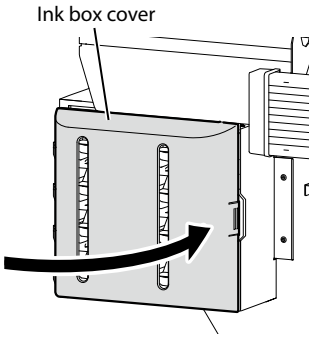
To switch 8-color mode to 4-color mode:
Remove the ink trays for Lm2, Gy4, Lc6, and Lg8.

```
REMOVE
Lm2 CL PACK
```

To switch 4-color mode to 8-color mode:
Remove the ink trays for M2, K4, C6, and Y8.

```
REMOVE
M2  CL PACK
```

11



Close the ink box cover.

```
CLOSE
INK COVER
```

12

```
START PURGING
*BOTTLE OK?
```

OK

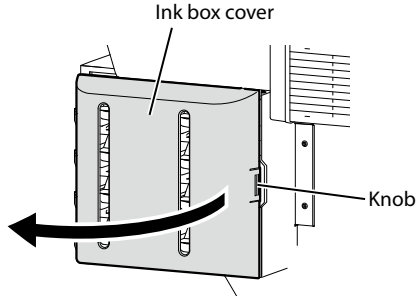
```
PURGING
PLEASE WAIT    12
```

Press the OK key.
Run the ink system purge routine.

13 Repeat the steps **6** to **12** to perform the cleaning again.

STEP 4 Install the ink packs.

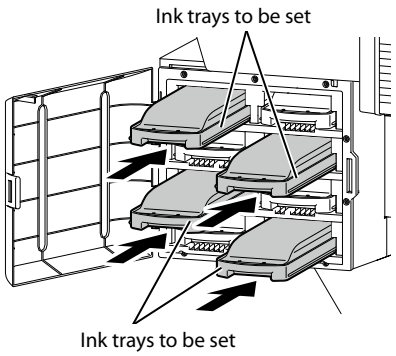
1



Open the ink box cover.

```
OPEN
INK COVER
```

2



Set the four ink packs.

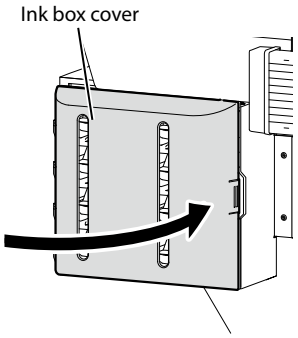
To switch 8-color mode to 4-color mode:

```
LOAD
M2  INK PACK
```

To switch 4-color mode to 8-color mode:

```
LOAD
Lm2 INK PACK
```

3



Close the ink box cover.

```
CLOSE
INK COVER
```

4

```
START INK CHARGING
*BOTTLE OK?
```

OK

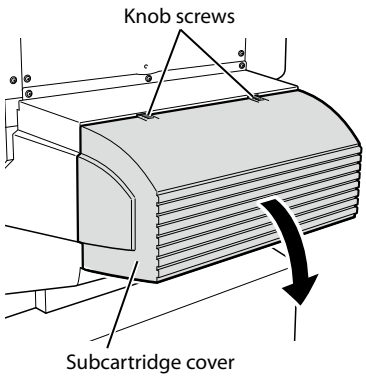
```
CHARGING INK
PLEASE WAIT    12
```

Press the OK key.

Charge the ink system with ink.

STEP 5 Replace the four dummy subcartridges with the four subcartridges.

1

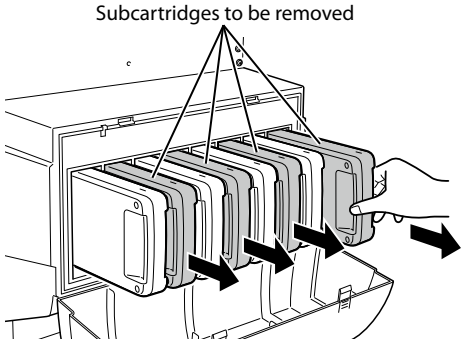


Open the subcartridge cover.

Loosen the two knob screws on the subcartridge cover and open the subcartridge cover.

```
OPEN
SUBCARTRIDGE COVER
```

2



Remove the dummy subcartridges of the color replacement set.

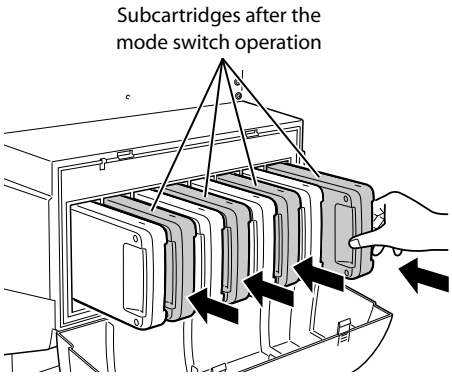
To switch 8-color mode to 4-color mode:
Remove the subcartridges for Lm2, Gy4, Lc6, and Lg8.

```
LOAD
Lm2 DUMMY SUBCART
```

To switch 4-color mode to 8-color mode:
Remove the subcartridges for M2, K4, C6, and Y8.

```
LOAD
M2 DUMMY SUBCART
```

3



Set the four subcartridges.

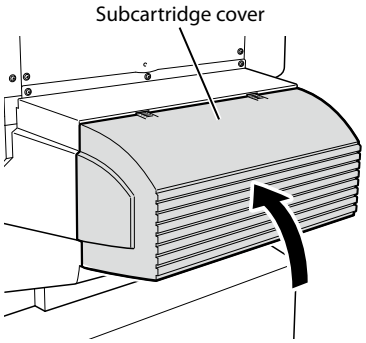
To switch 8-color mode to 4-color mode:
Set the subcartridges for M2, K4, C6, and Y8.

```
LOAD
M2  SUBCARTRIDGE
```

To switch 4-color mode to 8-color mode:
Set the subcartridges for Lm2, Gy4, Lc6, and Lg8.

```
LOAD
Lm2 SUBCARTRIDGE
```

4



Close the subcartridge cover and tighten the two knob screws.

```
CLOSE
SUBCARTRIDGE COVER
```

5

```
CLEANING
*BOTTLE OK?
```

OK

```
CLEANING
PLEASE WAIT    12
```

Press the OK key.

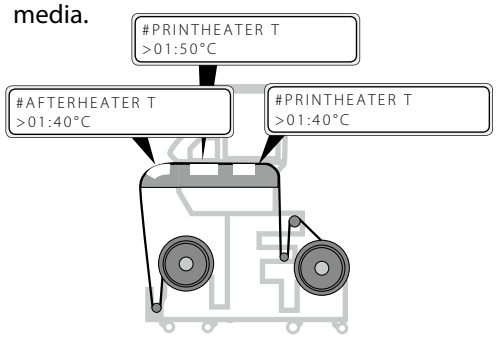
The cleaning is performed and the color mode switch operation is completed.

Adjust the heaters' temperature

The each heater's initial value is set with MEDIA REG MENU, and the value is automatically set for the heater's temperature.
Therefore, normally the heater control menu is not required.
The heater control menu is used to:
- Complete the temperature's fine adjustment during the print operation; or
- Confirm the current heater temperature

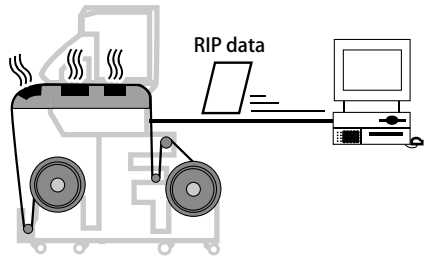
Procedure to set the heater temperature

(1) **The heaters are standby with the initial temperature registered with the applied media.**



When a media type is selected at installing media, initial temperature values of each heater for the selected media type are displayed on the menu.

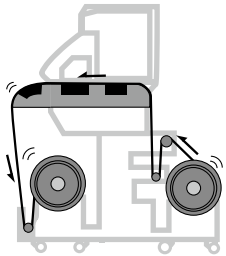
(2) **With receiving the RIP data, heating is started.**



When the heater temperature is set with the RIP's print data and job, the heater control menu's temperature is overwritten by the RIP's temperature.

- To use the initial temperature values set on the operation panel rather than the temperature set with the RIP, set HEATER PREF in the MEDIA REG MENU to HEATER PANEL.

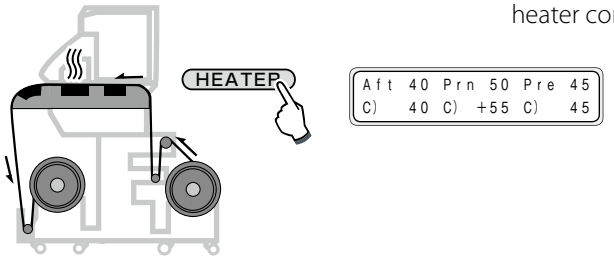
(3) **When the heater temperature increased almost to the setup temperature, the print operation is started.**



When the current temperature of the afterheater, printheater, and preheater reaches the temperature that is 1°C lower than the set temperature, the printer starts printing.

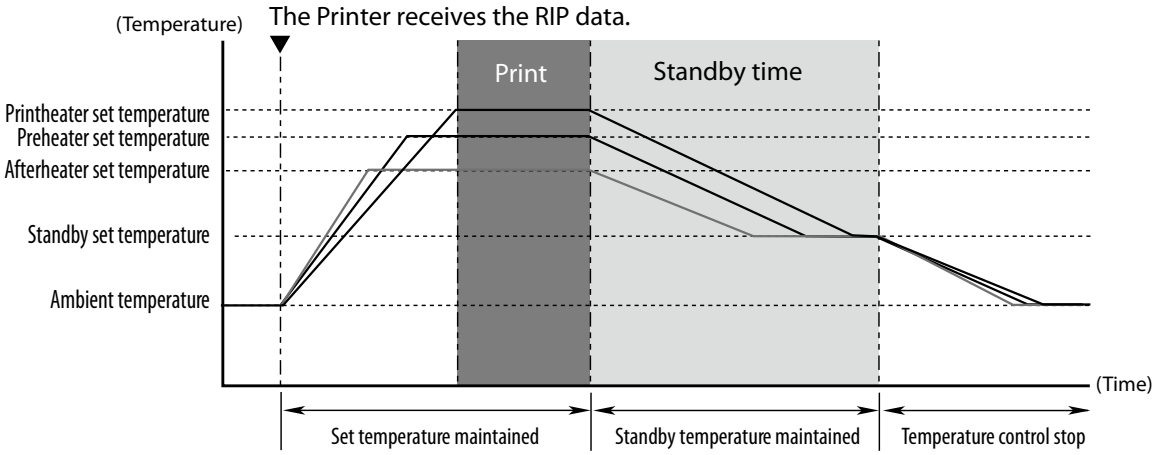
- The heaters' maximum setup temperature is as follows.
  Afterheater: 70°C, Printheater: 55°C, Preheater: 55°C
- Even after the print is completed, the temperature changed at this procedure remains as the heaters' setup temperature, until the media is installed again or the Printer is turned off.
  Note that the heaters' initial values set with MEDIA REG MENU are not changed with this procedure.

(4) **The heaters' temperature is changed during the print operation.**



During the print operation the heaters' temperature is changed by specifying the setup temperature with the heater control menu.

■ The heater temperature control system for printing



- The heaters become standby at the temperature below.
  Preheater: 45 ºC
  Printheater: 45 ºC
  Afterheater: 60 ºC
  However, the temperature above is lowered to the setup temperarure if the setup temperature is lower than the standby temperature above.

Display the heater control menu.

Press the HEATER key to display the heater control menu.

Key operation in the heater control menu

< and > keys	Select the heater whose temperature is to be set.
v and ^ keys	Set the heater temperature.
MENU key	Turns the heater ON or OFF.
OK key	When this key is pressed for 1.5 seconds while the heater control menu is displayed, all the heaters are forcibly turned on even without print operation. (The heating control starts.)
CANCEL key	Pressing this key for 1.5 seconds with the heater control menu displayed cancels the heater-on state forcibly specified by the OK key. (The heating control stops.)

Finish displaying the heater control menu

Press the HEATER key while the heater control menu is displayed.

■ When the heater control menu display finishes automatically

HEATER DISPLAY END

If no key is input for 30 seconds while the heater control menu is displayed, a message "HEATER DISPLAY END" appears automatically for two seconds and then the heater control menu display finishes. While this message is displayed, no key input is effective.

■ Heater preset temperature by medium

The heater preset temperature for each media type is listed below. Preset the heater temperature according to the media you use.

Medium	Media type	Recommended heater temperature setting			Print mode
		Afterheater	Printheater	Preheater	
Glossy vinyl	Glossy	45ºC	40ºC	45ºC	NORMAL1, bidirectional
Matte vinyl	Matte	45ºC	40ºC	45ºC	NORMAL1, bidirectional
Banner	Banner	45ºC	40ºC	45ºC	NORMAL1, bidirectional

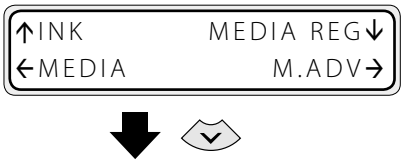
We recommend that the preheater, the printheater, and the afterheater be set to lower than 50ºC, 45ºC, and 50ºC respectively.

NOTE

- When the printheater temperature is set too high, the ink fusion on the media is improved, however media wrinkle or mat print mahy be caused. Adjust heater temperature according to the media type and environmental temperature.
- When the printheater temperature is set to high, the printer may print at low speed to ensure stable print quality.
- Set the preheater/afterheater temperatures 5ºC higher than the printheater temperature. Bad temperature balance between preheater/afterheater and printheater may cause the media to wrinkle.
- Setting the printheater temperature to high may cause missing dots.

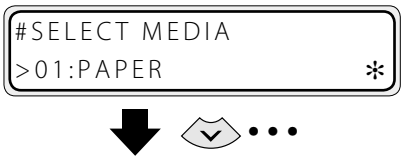
Set the heater preset temperature

1



Set the Printer to offline state and press the ▽ key.

2

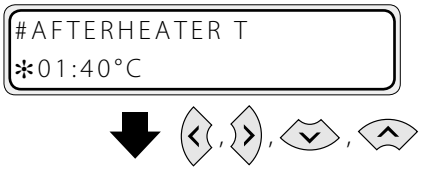


With the ▽ key scroll to **[#AFTERHEATER T]**.

3

Press the OK key.

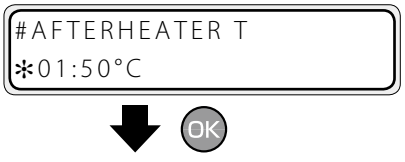
4



Enter the heater preset temperature.

Align the digit with the ◁ and ▷ keys and set the value with the ▽ and △ keys.

5



Press the OK key.

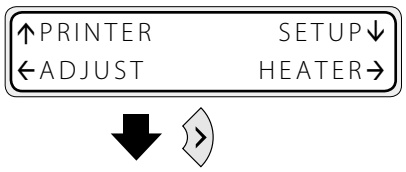
Select the standby time

Select the time to maintain the standby set temperature of the heater (including the time for transition to the standby set temperature) after printing.

1

Set the Printer to offline state and press the MENU key twice.

2

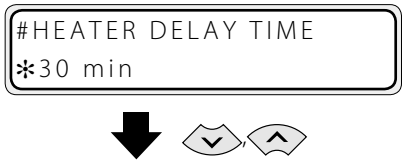


Press the › key.

3

Press the OK key.

4



With the ⌄ or ⌃ key, select the time to maintain the heater's standby setup temperature.

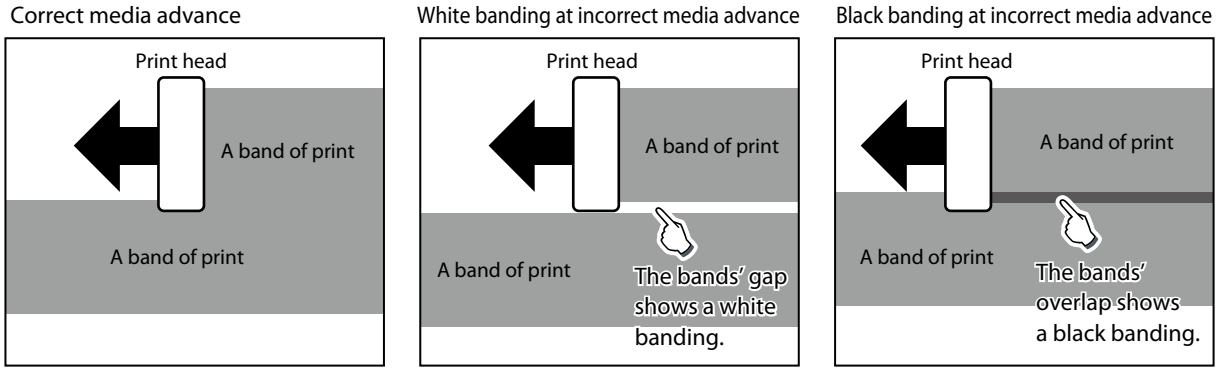
5

Press the OK key.

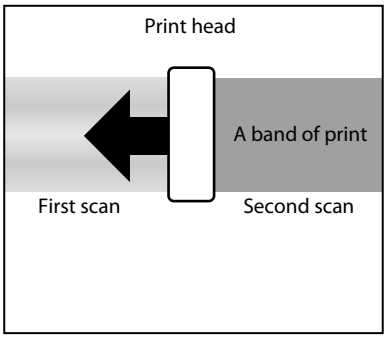
The operation was completed.

Smart pass technology

With inkjet printers, a horizontal banding may appear between the bands, which are the areas printed by one scan. This symptom is called as banding.
The banding is caused mainly by setting the media advance compensation improperly. With the proper compensation, the bands are linked without gap. However, with the larger compensation the bands are linked with gaps, showing white lines, while with the smaller one the bands overlap, showing black lines.
The banding is also caused in the following cases.
- The ink dries so slowly.
- The media advance changes considerably depending on the print head scan.



The Smart Pass Technology is the function used to reduce this banding problem.
With the Printer's operation menu, "#SMART PASS" in MEDIA REG MENU can be set to LOW, MEDIUM, and HIGH. Setting can also be made with RIP data.
With Smart Pass Technology, the bands are printed overlapping even when the media advance compensation is proper. The overlapping part is processed with the OKI Data Infotech's unique algorithm so that the bands are not noticeable.



The Printer features three overlapping intensities (LOW, MEDIUM, HIGH).
Increasing the process intensity in the overlapping parts makes the banding less noticeable, but decreases the print speed.
Increase the overlapping intensity to prioritize quality, and decrease the intensity to prioritize print speed.

Before adjustment and calibration

Before adjustment and calibration, perform the operation below.

(1) Forcedly set the media heater to ON to warm up the Printer for 30 minutes or more.

Start the adjustment only after confirming that the Printer is warmed up sufficiently. The adjustment may not be performed correctly when the Printer is not warmed up sufficiently.

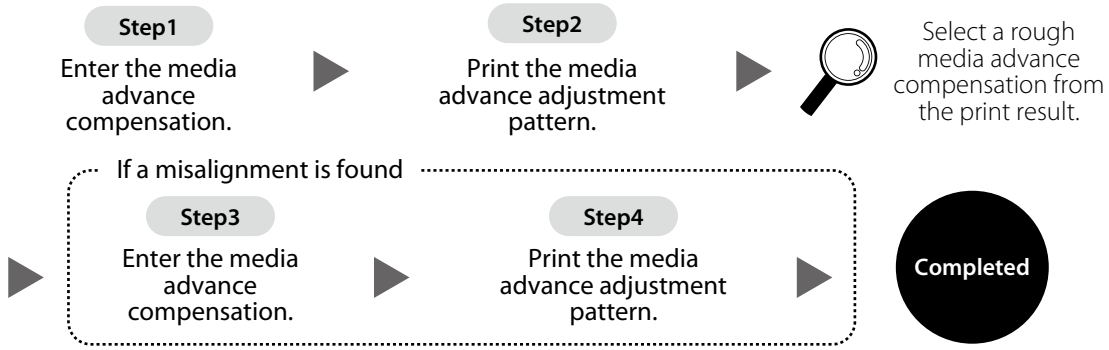
(2) Rotate the control pressure knob to "OPEN" and reinstall the media to adjust the print head height.

Procedures

Adjusting media advance compensation

The media advance compensation can be determined by printing either of the **[SINGLE]** and **[MULTI]** media advance adjustment patterns.
Select **[SING. ADV]** to print one pattern with the current **[MEDIA ADV VALUE]**.
Select **[MULTI ADV]** to print three patterns, one with the current **[MEDIA ADV VALUE]** -0.2%, one with the current **[MEDIA ADV VALUE]**, and one with the current **[MEDIA ADV VALUE]** +0.2%.

■ Workflow



The factors that change the media advance compensations are as follows.

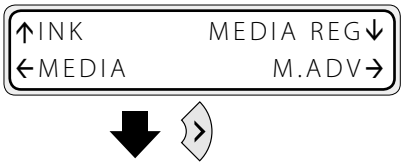
- Change the print mode
- Change smart pass setting
- Change the pressure with the pressure control know.
- Print with/without the take-up reel unit
- Change the media type
- Change the media advance path

Print [MULTI ADV] adjustment pattern

1 Set more than 4 m of media.

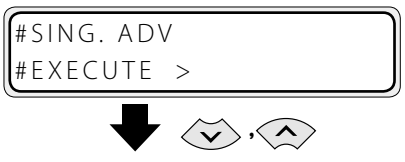
Set the media on the same conditions as when actually printing.

2



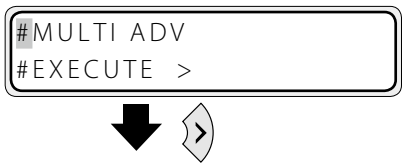
Set the Printer to offline state and press the [>] key.

3



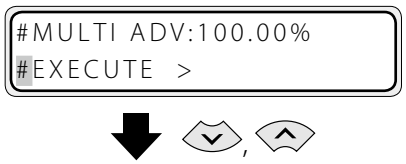
Display the **[MULTI ADV]** adjustment pattern with the [v], [^] key.

4



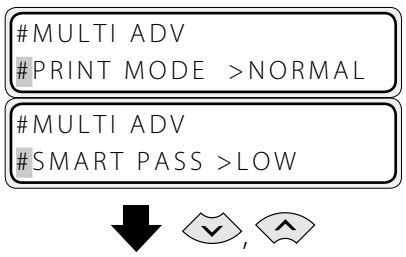
With the >> key, select **[MULTI ADV]** print pattern.

5



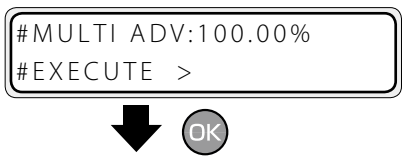
Select the print mode and smart pass with the v, ^, OK keys.
Select the print mode and smart pass used normally with the media to set the media advance compensation.

6



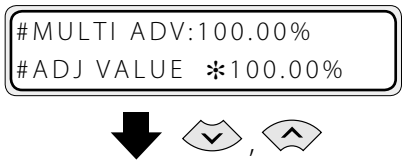
Select **[EXECUTE]** with the v, ^ key.

7



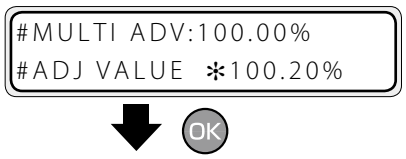
Press the OK key.

8



Set the media advance compensation with the v, ^ key when the value is displayed.

9



Press the OK key.

10

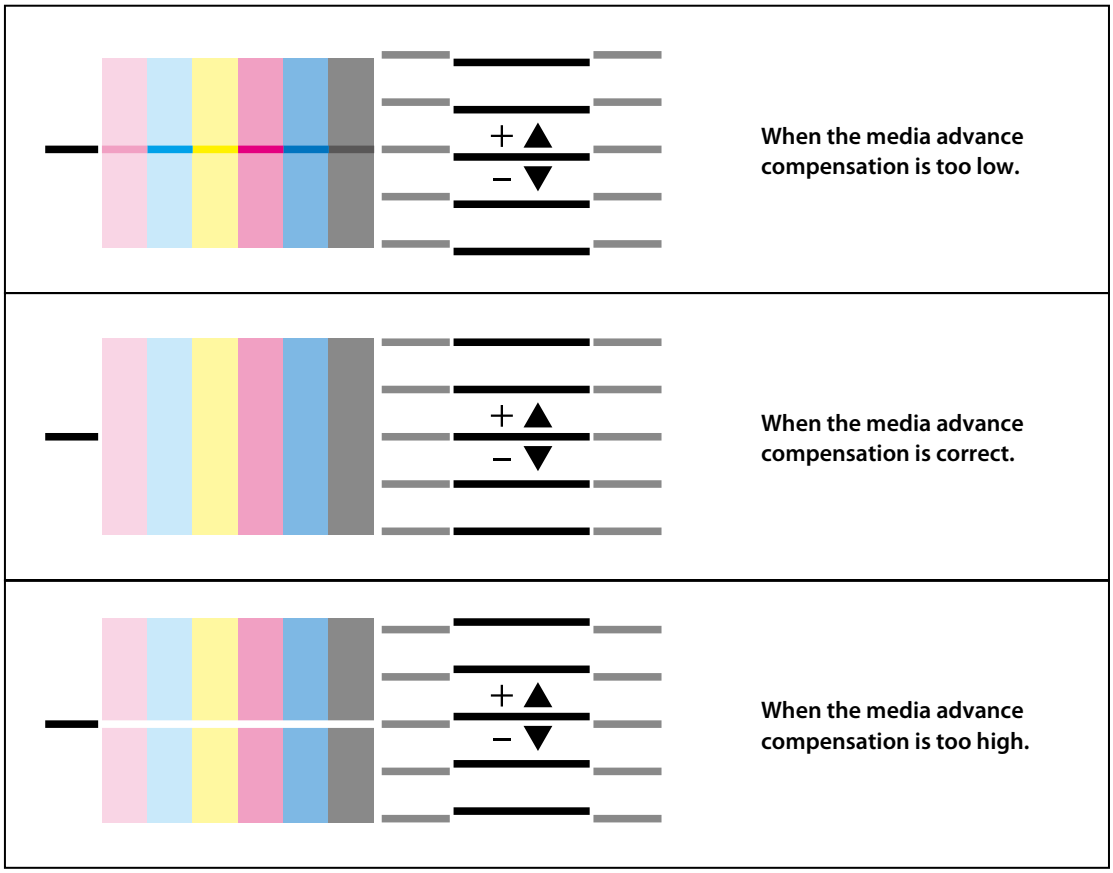
Confirm the media advance compensation value and press the OK key.

11

The adjustment pattern is printed.

Check the print results. If the media advance compensation appears to be incorrect, perform steps 7 to 11 again to determine the correct value.

Check the media advance adjustment pattern



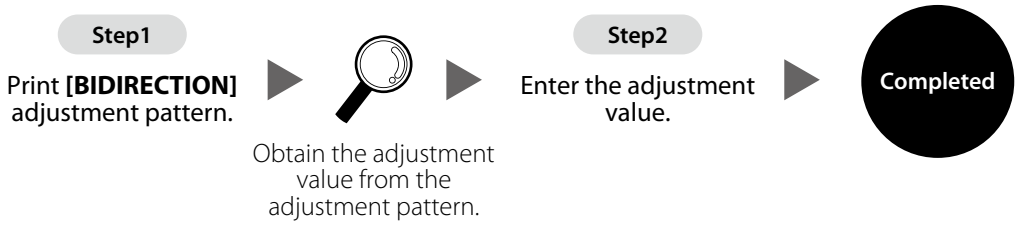
⚠CAUTION

- If the correct media advance compensation differs with each print head (each color), set the average value. However, if a color is predominant in the printed image, set the compensation for this color.
- If the correct media advance compensation differs between the media right and left sides, set the average value.
- If the correct media advance compensation differs between the media right and left sides, it may be cause by a skewed media. Check that the media is not skewed.

Adjust bidirectional print positions

This function adjusts each print head's bidirectional print position.

■ Workflow



■ Procedure

(When bidirectional adjustment pattern is set to auto)

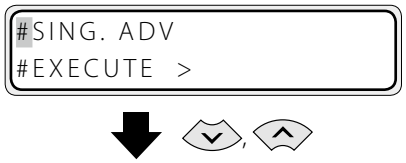
This function adjusts each print head's bidirectional print position. Enter the adjustment value based on print results of **[AUTO BIDIR ADJUST]**.

STEP 1 Print **[AUTO BIDIR]** adjustment pattern.

1

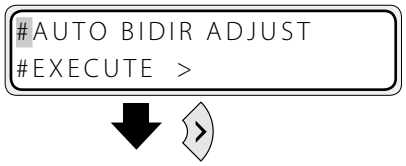
Set the Printer to offline state and press the MENU key twice.

2



Select **[AUTO BIDIR ADJUST]** with the ⌄, ⌃ key.

3

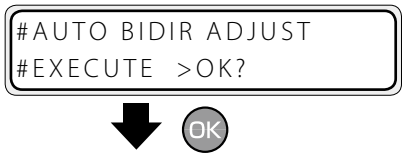


Press the › key.

4

Press the OK key.

5

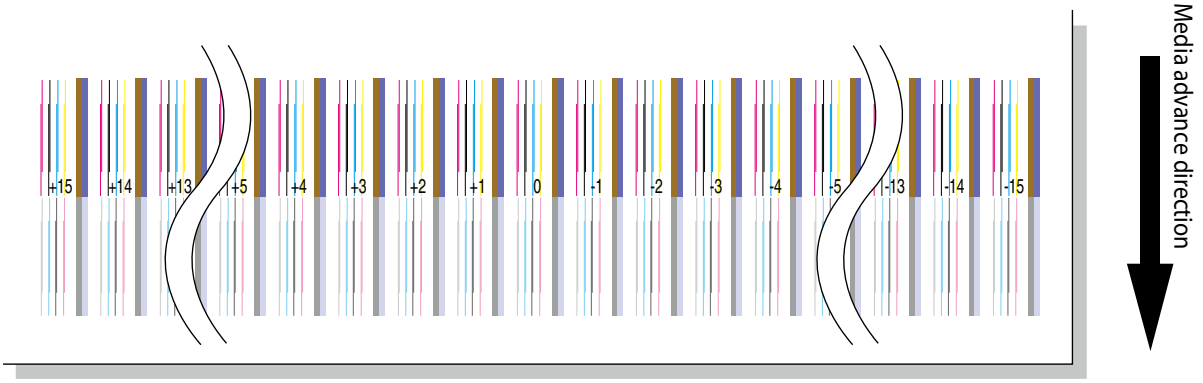


Press the OK key.

6

The adjustment pattern is printed.

Print sample



STEP 2 Enter the adjustment value.

1

Select ADJ L or ADJ R with the , key.

2

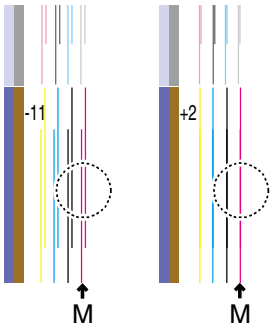
Select the print head to adjust with the OK key.

Here, the left side of M7 print head is adjusted as an example.

3

Select the digit with the or key, and set the value with the or key.

Enter the value of the adjustment pattern where each print head's two lines overlap with the least misalignment.
For example, on the right adjustment patterns for M7 print head, the two lines misalign at -11 while they overlap to be one line at +2. So enter +2 for the adjustment value.



4

Press the OK key.

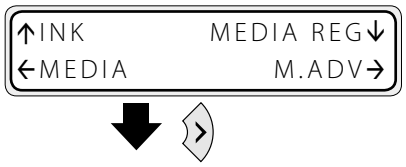
5

Adjust the ADJ R value and the values for the other print heads with the same procedure.

(When bidirectional adjustment pattern is set to manual)
This function adjusts each print head's bidirectional print position. Enter the adjustment value based on print results of **[MANUAL BIDIR ADJUST]**.

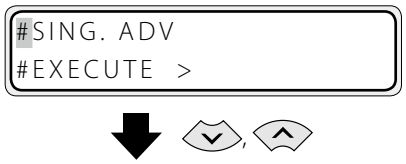
STEP 1 Print **[MANUAL BIDIR]** adjustment pattern.

1



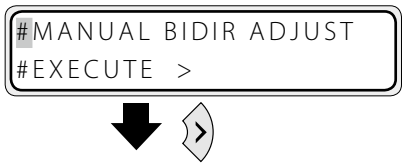
Select **[M.ADV]** with the › key.

2



Select **[MANUAL BIDIR ADJUST]** with the ∨, ∧ key.

3



Press the › key.

4

Select **[PATTERN]** with the ∨, ∧ key.

5

Press OK to change the print pattern.

6

Select the print pattern with the ∨, ∧ key.
Press the OK key to confirm.

Bidirectional adjustment pattern <print mode>

Adjustment pattern	Print mode
BIDIRECTION DEF 1	MAX SPEED, HIGH SPEED
BIDIRECTION DEF 2	NORMAL
BIDIRECTION DEF 3	HIGH QUALITY
BIDIRECTION DEF 4	MAX QUALITY

7

Select **[EXECUTE]** with the ∨, ∧ key.

8 #MANUAL BIDIR ADJUST
#EXECUTE >

Press the OK key.

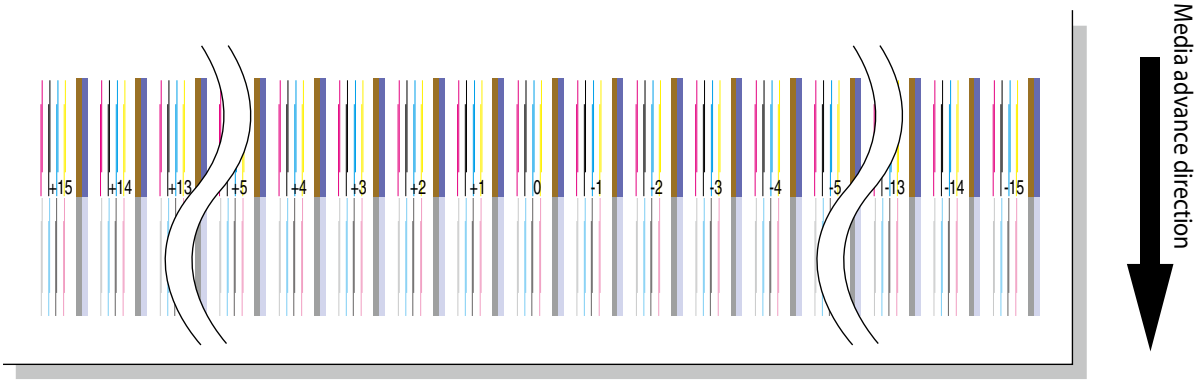
9 #MANUAL BIDIR ADJUST
#EXECUTE >OK?

Press the OK key.

10 #MANUAL BIDIR ADJUST
#EXECUTING

The adjustment pattern is printed.

Print sample



STEP 2 Enter the adjustment value.

1 #MANUAL BIDIR ADJUST
#EXECUTE >

Select ADJ L or ADJ R with the ▽, △ key.

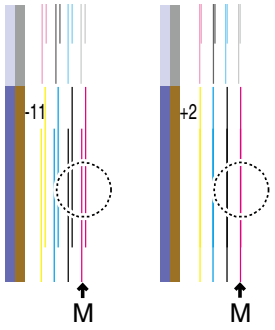
2 #MANUAL BIDIR ADJUST
#ADJ2 L M7 >+00

Select the print head to adjust with the OK key.
Here, BIDIR ADJ2 L for M7 print head is adjusted as an example.

3 #MANUAL BIDIR ADJUST
#ADJ2 L M7 *+00

Select the digit with the ◁ or ▷ key, and set the value with the ▽ or △ key.

Enter the value of the adjustment pattern where each print head's two lines overlap with the least misalignment.
For example, on the right adjustment patterns for M7 print head, the two lines misalign at -11 while they overlap to be one line at +2. So enter +2 for the adjustment value.



4 #MANUAL BIDIR ADJUST
#ADJ2 L M7 ✻+02

Press the OK key.

5 #MANUAL BIDIR ADJUST
#ADJ2 L M7 >+02

Adjust the ADJ2 R value and the values for the other print heads with the same procedure.

Adjust the print linkage before or after automatic cleaning

In the DURING PRINT, automatic cleaning is performed even while the Printer is printing. In such a case, after the cleaning, adjust the position of the linkage for the prints before and after the cleaning.
Enter the adjustment value based on the media back feed adjustment pattern.
Before this adjustment, set the cleaning mode to the DURING PRINT at MEDIA REG MENU.

■ Procedure

STEP 1 Print **[BACK ADJ PRINT]** adjustment pattern.

1 ↑INK MEDIA REG↓
←MEDIA M.ADV→

Set the Printer to offline state and press the key.

2 #SING. ADV
#EXECUTE >

Select **[BACK ADJ PRINT]** with the , key.

3 #BACK ADJ PRINT
#EXECUTE >

Press the key.

4

```
#BACK ADJ PRINT
#EXECUTE  >
```

Select the print mode with the ▼, ▲ key.

5

```
#BACK ADJ PRINT
#PRINT MODE >NORMAL
```

Press the OK key.

6

```
#BACK ADJ PRINT
#PRINT MODE *MAX SPEED
```

Select the print pattern with the ▼, ▲ key.
Press the OK key to confirm.

7

```
#BACK ADJ PRINT
#PRINT MODE >MAX SPEED
```

Set smart pass with the same procedure.

Select **[EXECUTE]** with the ▼, ▲ key.

8

```
#BACK ADJ PRINT
#EXECUTE  >
```

Press the OK key.

9

```
#BACK ADJ PRINT
#EXECUTE  >OK?
```

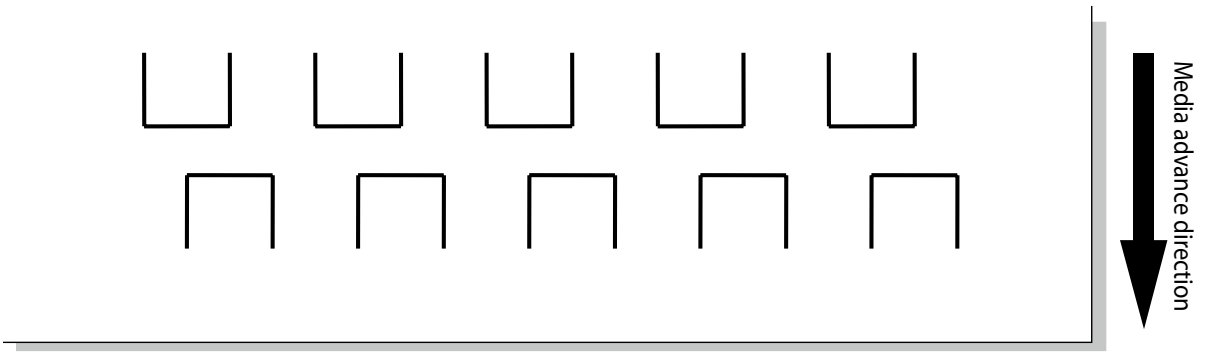
Press the OK key.

10

```
#BACK ADJ PRINT
#EXECUTING
```

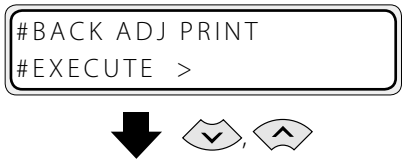
The adjustment pattern is printed.

Print sample



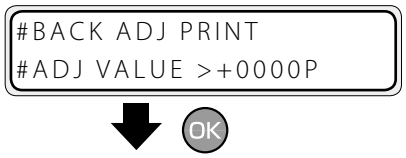
STEP 2 Enter the adjustment value.

1



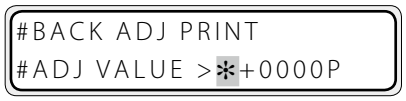
Select **[ADJ VALUE]** with the , key.

2



Press the OK key.

3



Select the digit with the , key, set the value with the , key, and press the OK key.

4

Press the OK key.

5

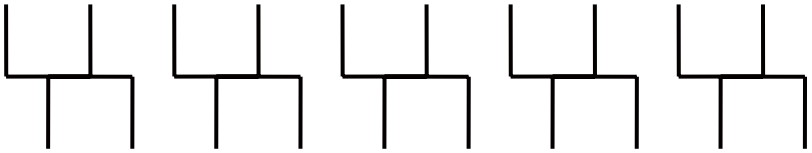
The procedure is complete.

STEP 3 Print **[BACK ADJ PRINT]** again to check that the horizontal lines overlap on the print pattern.

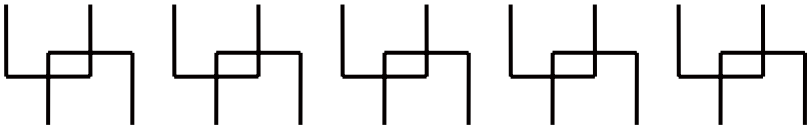
1 Perform STEP 1 and STEP 2 until the horizontal lines on the print pattern overlap.

Validate the media back feed adjustment pattern

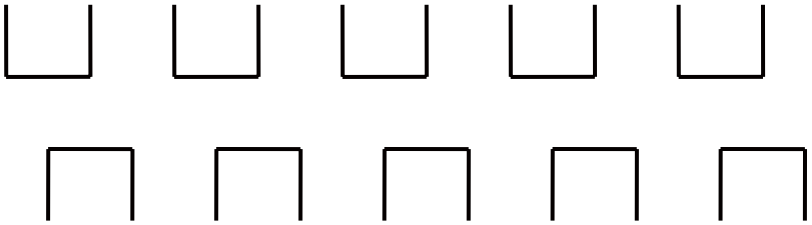
Determine the adjustment value so that the pattern's horizontal lines overlap.



If the value is larger, the upper and lower patterns overlap at the center.



If the value is smaller, the upper and lower patterns show a gap.



Adjust the print head position and the nozzle positions at the print head's right and left

This function adjusts each print head's position in the scanning direction, media right to left direction, based on the K5 print head position. Input the correction value based on the **[PRINT HEAD ADJUST]** print result.

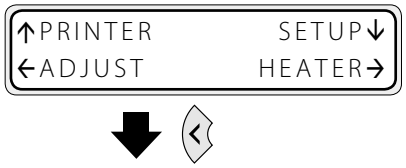
■ Procedure

STEP 1 Print **[PRINT HEAD ADJUST]** adjustment pattern

1

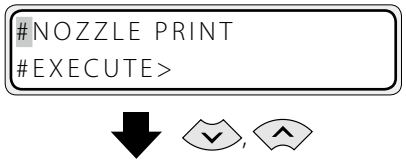
Set the Printer to offline state and press the MENU key twice to display ADJUST MENU.

2



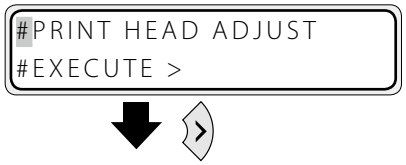
Press the ‹ key.

3



Select **[#PRINT HEAD ADJUST]** with the ⌄, ⌃ key.

4

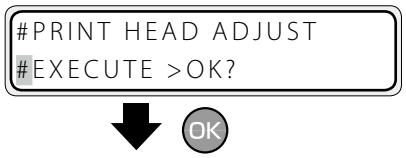


Press the › key.

5

Press the OK key.

6

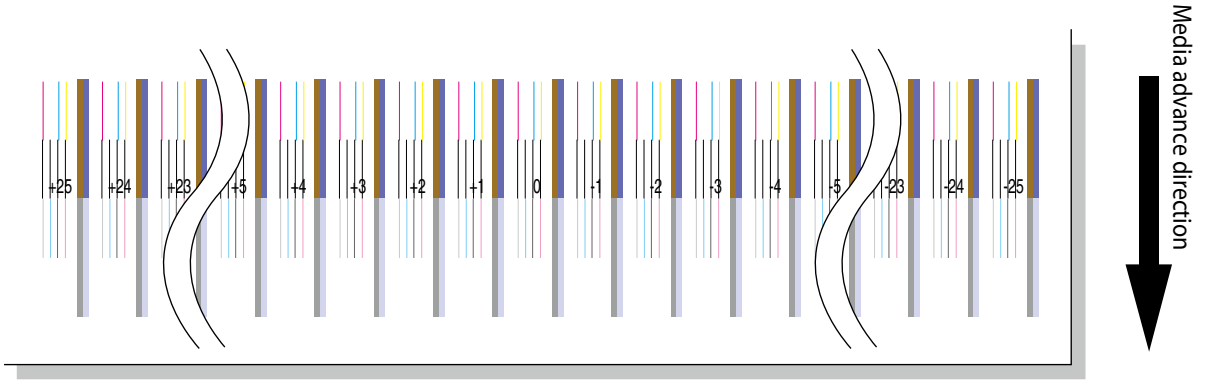


Press the OK key.

7

The print head position adjustment pattern is printed.

Print sample



STEP 2 Enter the adjustment value.

Enter the head position adjustment value.

1

```
#PRINT HEAD ADJUST
#EXECUTE >
```

Select the head color with the ⌄, ⌃ key.

2

```
#PRINT HEAD ADJUST
#POS ADJ Lc6>+00
```

Select the print head to adjust with the OK key.
Here, the Lc6 print head is adjusted as an example.

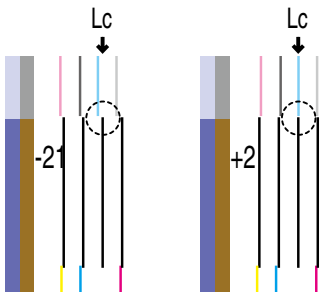
3

```
#PRINT HEAD ADJUST
#POS ADJ Lc6*+00
```

Select the digit with the ‹ or › key, and set the value with the ⌄ or ⌃ key.

Enter the value of the adjustment pattern where the K5 print head's line and the determined print head's line overlap with the least misalignment.
For example, on the right adjustment patterns for Lc6 print head, the two lines misalign at -21 while they overlap at +2. So enter +2 for the adjustment value.

```
#PH TO PH VAL
#Lc6      *+02
```



4

```
#PRINT HEAD ADJUST
#POS ADJ Lc6*+02
```

Press the OK key.

5

```
#PRINT HEAD ADJUST
#POS ADJ Lc6>+02
```

Adjust values for the other color with the same procedure.

Next, enter the head right to left adjustment value.

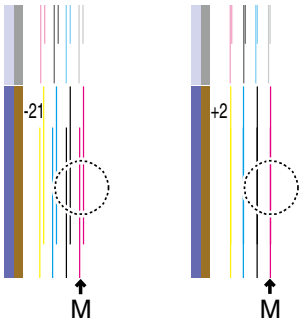
6

Select the print head to adjust with the OK key.
Here, the M7 print head is adjusted as an example.

7

Select the digit with the ‹ or › key, and set the value with the ⌄ or ⌃ key.

Input the value of the test pattern where each print head's two lines overlap with the least misalignment.
For example, on the right test patterns for M7 print head, the two lines misalign at -21 while they overlap to be one line at +2. So input +2 for the correction value.



8

Press the OK key.

9

Adjust values for the other print heads with the same procedure.

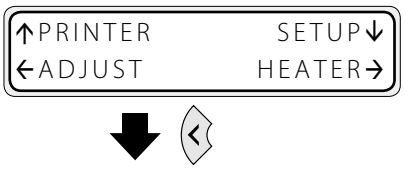
Asjust the edge sensor position

Print the edge sensor adjustment pattern, and adjust the edge sensor position.
After printing, measure the distance and specify the parameter.

1

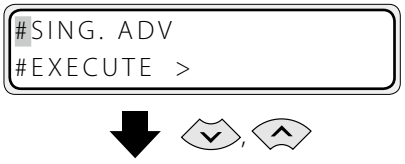
Set the Printer to offline state and press the MENU key twice.

2



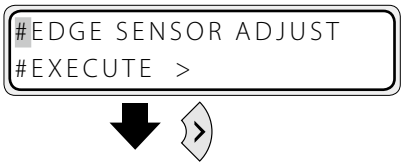
Press the ‹ key.

3



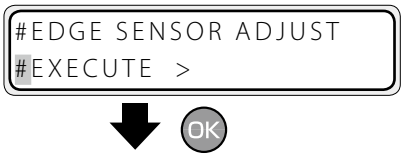
Select **[EDGE SENSOR ADJUST]** with the ˅, ˄ key.

4



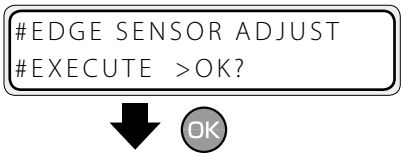
Press the › key.

5



Press the OK key.

6

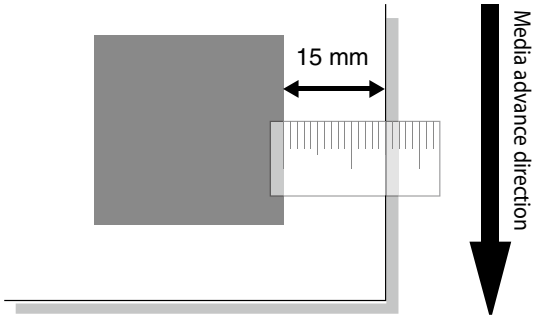


Press the OK key.

7

Edge sensor adjustment pattern is printed.

8 Print sample



Judge the print results.

Measure the margin of the printing result with a ruler, and obtain an difference between the measured margin and the value (15 mm) shown in the specifications.

If the difference is 0 mm, complate this procedure.

If not, follow the prcedure below to adjust the value.

To obtain the correction value:

Obtain the adjustment value by measuring the margin setting the reference value to 15 mm.
<Example>
The margin is **14 mm**: The adjustment value is **-1.0 mm**.
The margin is **16 mm**: The adjustment value is **+1.0 mm**.

9

```
#EDGE SENSOR ADJUST
#EXECUTE  >
```

Select [POS ADJ] with the ▽, △ key.

10

```
#EDGE SENSOR ADJUST
#POS ADJ >+0.0mm
```

Press the OK key.

11

```
#EDGE SENSOR ADJUST
#POS ADJ *+0.0mm
```

Select the digit with the ◁, ▷ key, set the value with the ▽, △ key, and press the OK key.

12

```
#EDGE SENSOR ADJUST
#POS ADJ *+0.5mm
```

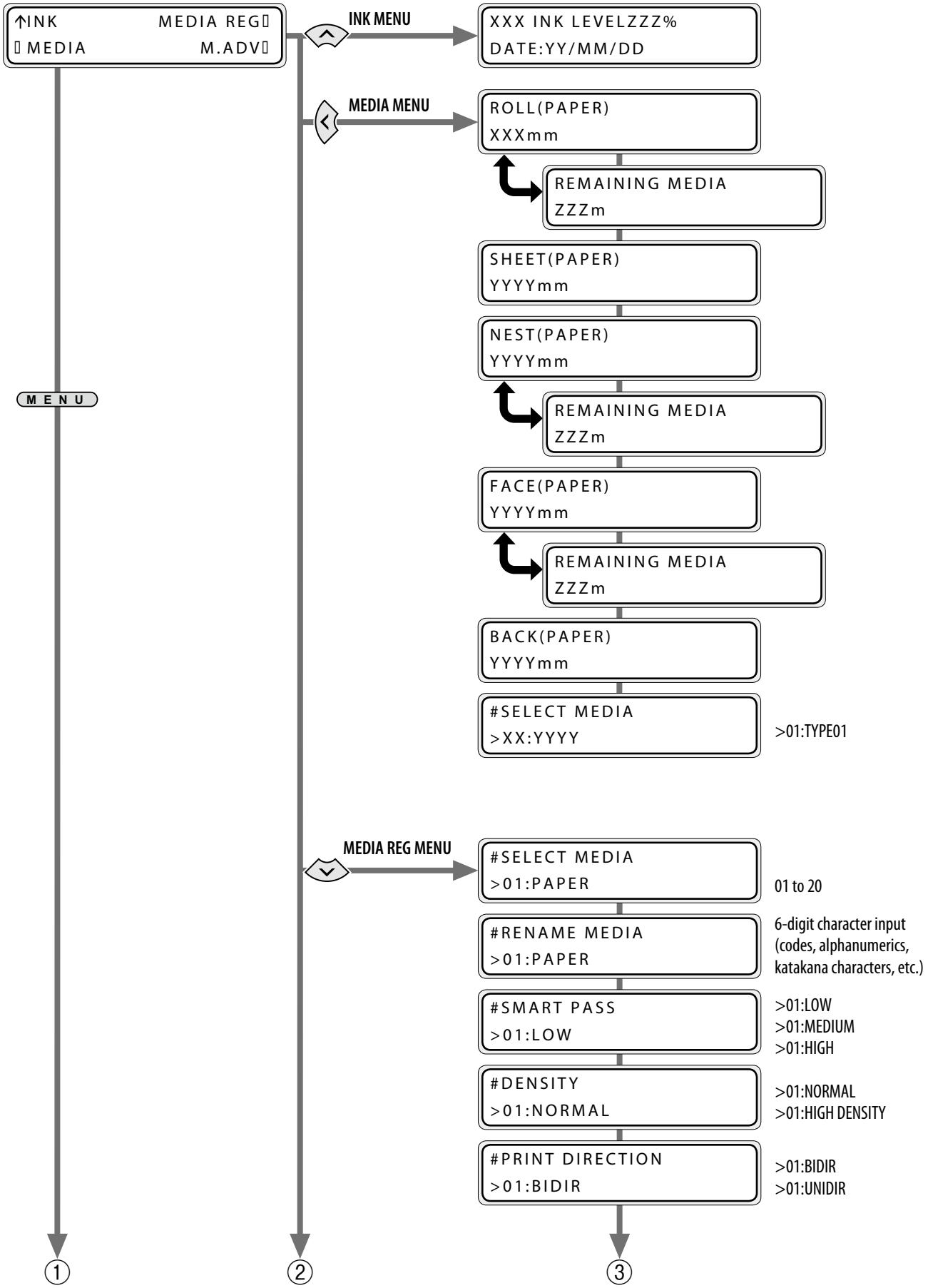
Press the OK key.

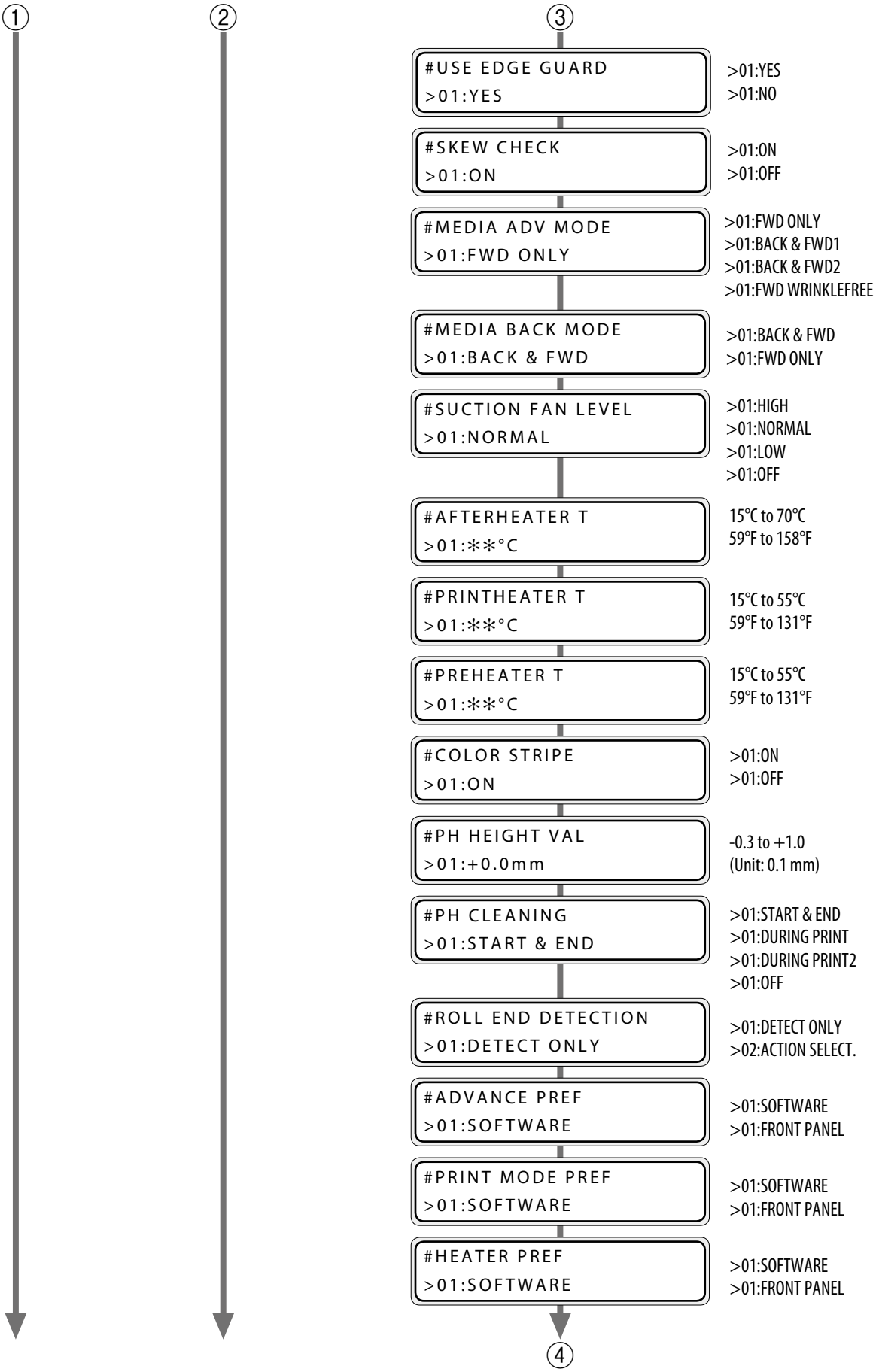
13

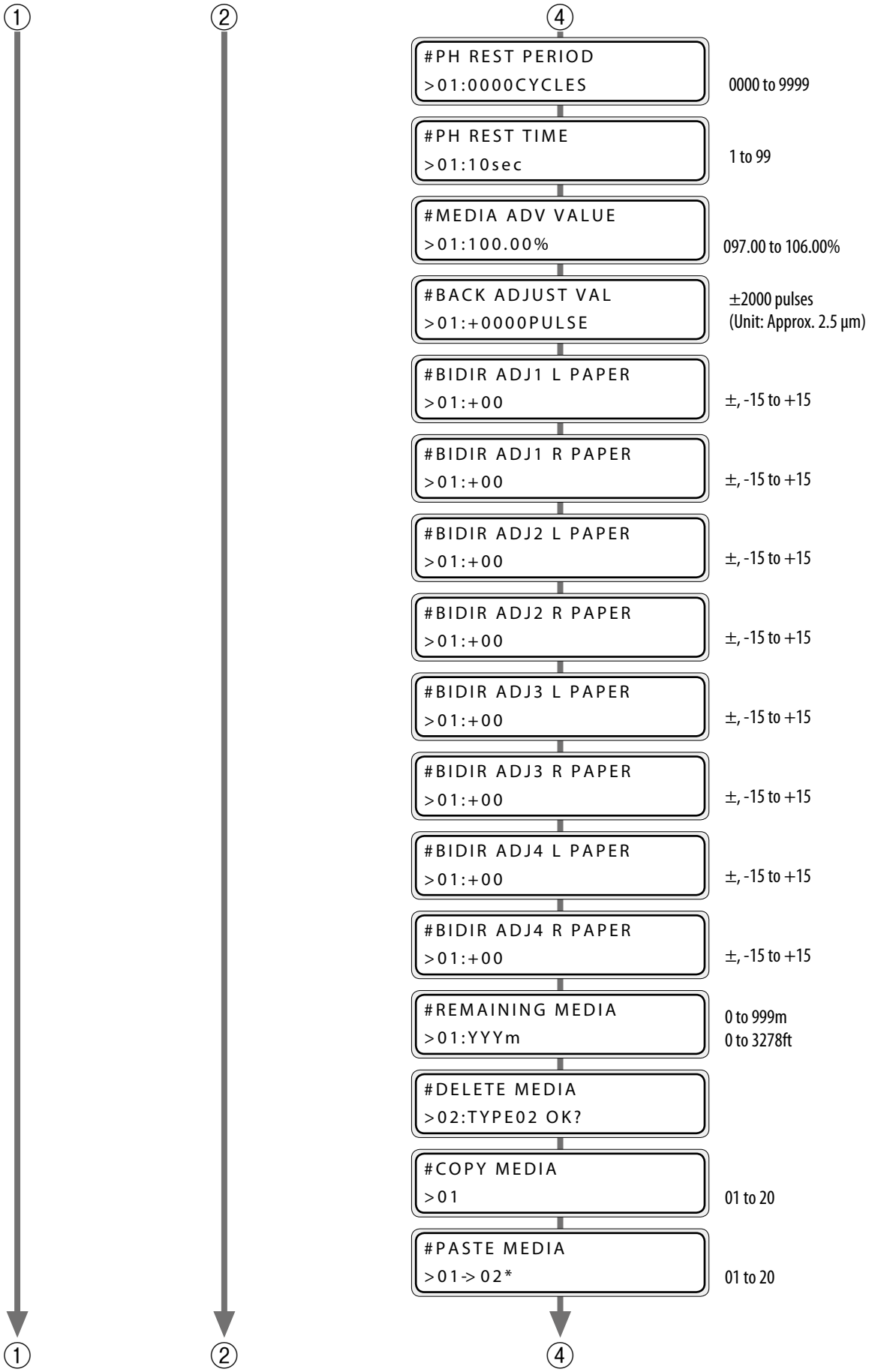
```
#EDGE SENSOR ADJUST
#POS ADJ >+0.5mm
```

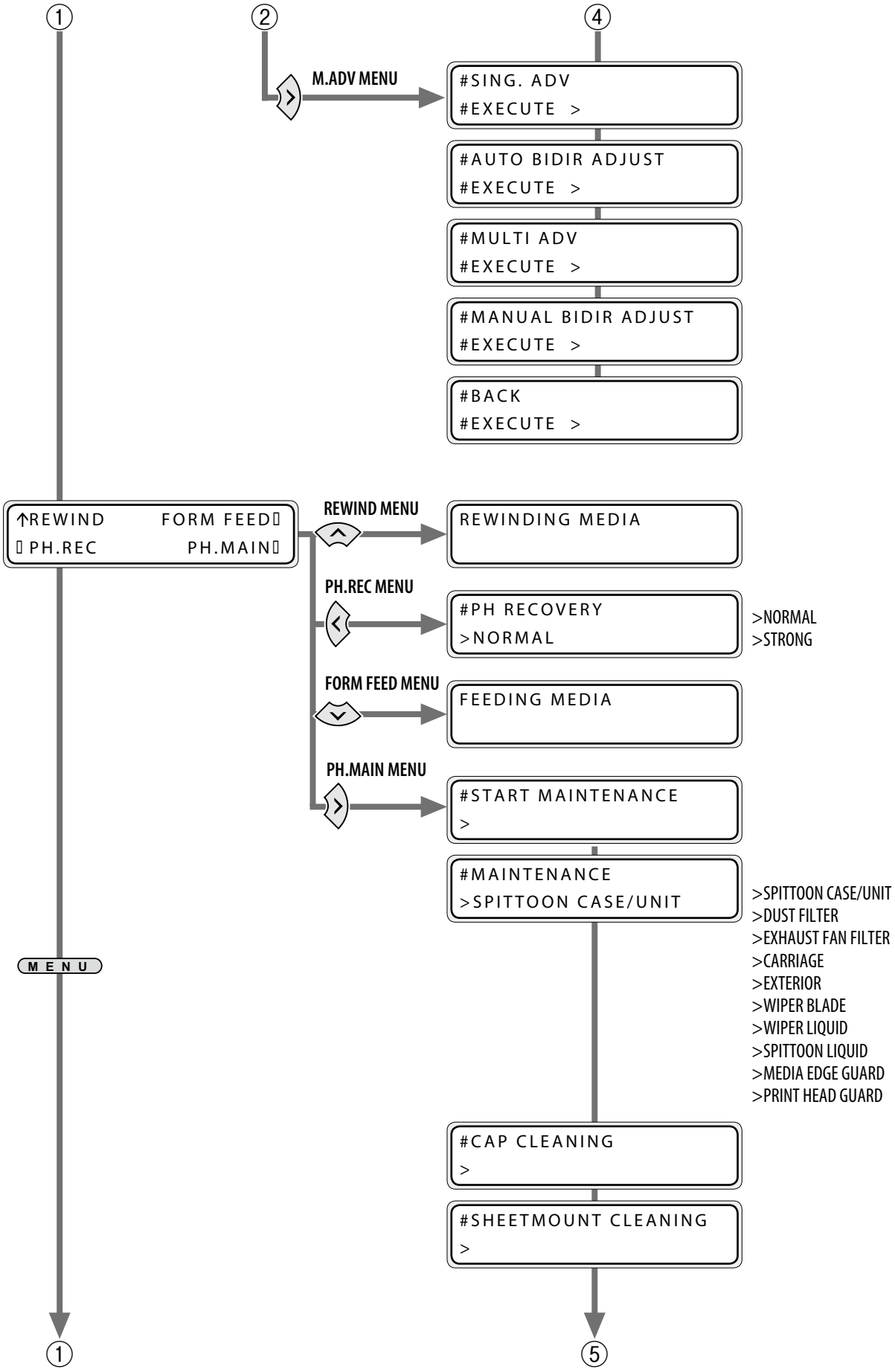
The adjustment is complete.

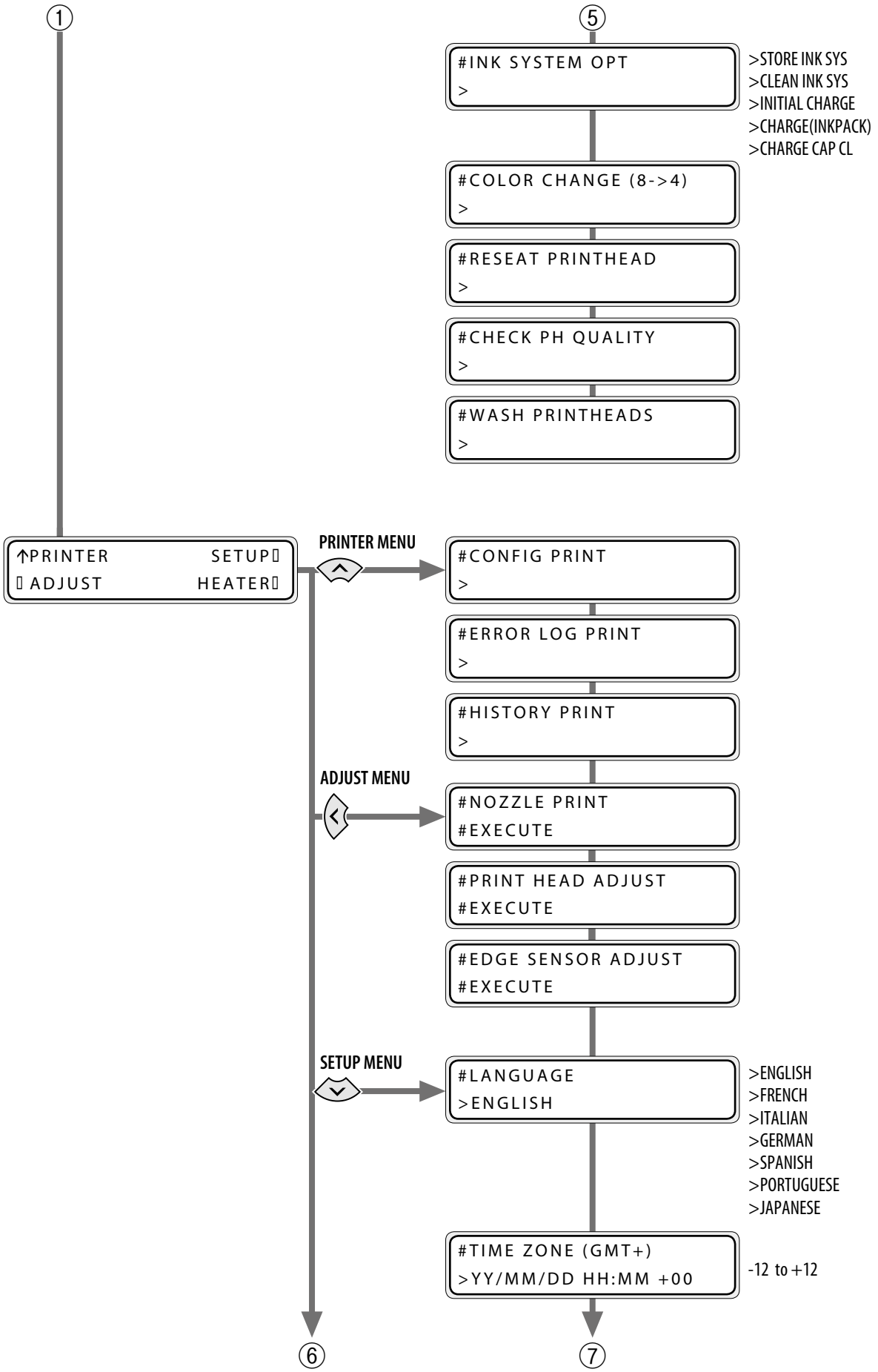
Menu tree

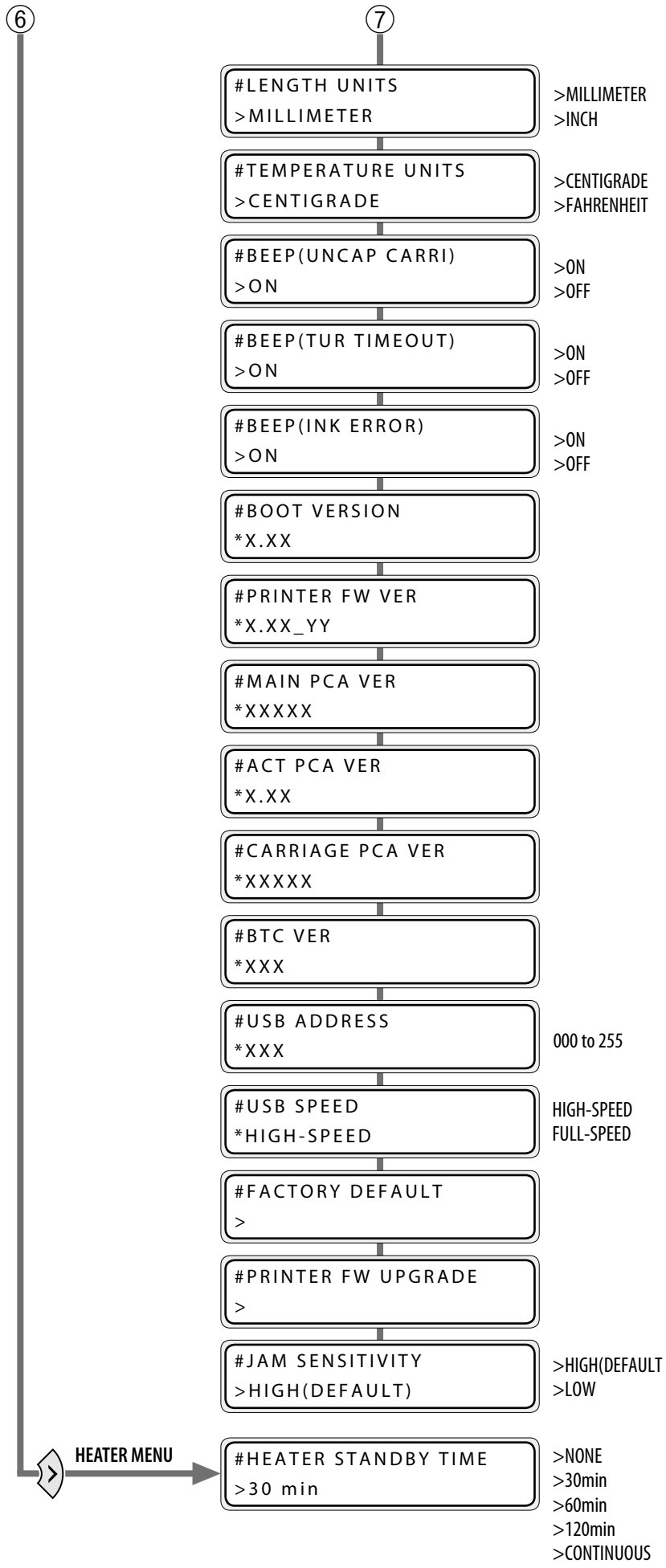

↑INK MEDIA REG
MEDIA M.ADV
MENU
INK MENU
XXX INK LEVELZZZ%
DATE:YY/MM/DD
MEDIA MENU
ROLL(PAPER)
XXXmm
REMAINING MEDIA
ZZZm
SHEET(PAPER)
YYYYmm
NEST(PAPER)
YYYYmm
REMAINING MEDIA
ZZZm
FACE(PAPER)
YYYYmm
REMAINING MEDIA
ZZZm
BACK(PAPER)
YYYYmm
#SELECT MEDIA
>XX:YYYY
>01:TYPE01
MEDIA REG MENU
#SELECT MEDIA
>01:PAPER
01 to 20
#RENAME MEDIA
>01:PAPER
6-digit character input
(codes, alphanumerics,
katakana characters, etc.)
#SMART PASS
>01:LOW
>01:LOW
>01:MEDIUM
>01:HIGH
#DENSITY
>01:NORMAL
>01:NORMAL
>01:HIGH DENSITY
#PRINT DIRECTION
>01:BIDIR
>01:BIDIR
>01:UNIDIR
①
②
③


①
②
③
#USE EDGE GUARD
>01:YES
>01:YES
>01:NO
#SKEW CHECK
>01:ON
>01:ON
>01:OFF
#MEDIA ADV MODE
>01:FWD ONLY
>01:FWD ONLY
>01:BACK & FWD1
>01:BACK & FWD2
>01:FWD WRINKLEFREE
#MEDIA BACK MODE
>01:BACK & FWD
>01:BACK & FWD
>01:FWD ONLY
#SUCTION FAN LEVEL
>01:NORMAL
>01:HIGH
>01:NORMAL
>01:LOW
>01:OFF
#AFTERHEATER T
>01:**°C
15°C to 70°C
59°F to 158°F
#PRINTHEATER T
>01:**°C
15°C to 55°C
59°F to 131°F
#PREHEATER T
>01:**°C
15°C to 55°C
59°F to 131°F
#COLOR STRIPE
>01:ON
>01:ON
>01:OFF
#PH HEIGHT VAL
>01:+0.0mm
-0.3 to +1.0
(Unit: 0.1 mm)
#PH CLEANING
>01:START & END
>01:START & END
>01:DURING PRINT
>01:DURING PRINT2
>01:OFF
#ROLL END DETECTION
>01:DETECT ONLY
>01:DETECT ONLY
>02:ACTION SELECT.
#ADVANCE PREF
>01:SOFTWARE
>01:SOFTWARE
>01:FRONT PANEL
#PRINT MODE PREF
>01:SOFTWARE
>01:SOFTWARE
>01:FRONT PANEL
#HEATER PREF
>01:SOFTWARE
>01:SOFTWARE
>01:FRONT PANEL
④


①
②
④
#PH REST PERIOD
>01:0000CYCLES
0000 to 9999
#PH REST TIME
>01:10sec
1 to 99
#MEDIA ADV VALUE
>01:100.00%
097.00 to 106.00%
#BACK ADJUST VAL
>01:+0000PULSE
±2000 pulses
(Unit: Approx. 2.5 µm)
#BIDIR ADJ1 L PAPER
>01:+00
±, -15 to +15
#BIDIR ADJ1 R PAPER
>01:+00
±, -15 to +15
#BIDIR ADJ2 L PAPER
>01:+00
±, -15 to +15
#BIDIR ADJ2 R PAPER
>01:+00
±, -15 to +15
#BIDIR ADJ3 L PAPER
>01:+00
±, -15 to +15
#BIDIR ADJ3 R PAPER
>01:+00
±, -15 to +15
#BIDIR ADJ4 L PAPER
>01:+00
±, -15 to +15
#BIDIR ADJ4 R PAPER
>01:+00
±, -15 to +15
#REMAINING MEDIA
>01:YYYm
0 to 999m
0 to 3278ft
#DELETE MEDIA
>02:TYPE02 OK?
#COPY MEDIA
>01
01 to 20
#PASTE MEDIA
>01->02*
01 to 20
①
②
④


①
②
④
M.ADV MENU
#SING. ADV
#EXECUTE >
#AUTO BIDIR ADJUST
#EXECUTE >
#MULTI ADV
#EXECUTE >
#MANUAL BIDIR ADJUST
#EXECUTE >
#BACK
#EXECUTE >
↑REWIND FORM FEED
PH.REC PH.MAIN
REWIND MENU
REWINDING MEDIA
PH.REC MENU
#PH RECOVERY
>NORMAL
>NORMAL
>STRONG
FORM FEED MENU
FEEDING MEDIA
PH.MAIN MENU
#START MAINTENANCE
>
#MAINTENANCE
>SPITTOON CASE/UNIT
>SPITTOON CASE/UNIT
>DUST FILTER
>EXHAUST FAN FILTER
>CARRIAGE
>EXTERIOR
>WIPER BLADE
>WIPER LIQUID
>SPITTOON LIQUID
>MEDIA EDGE GUARD
>PRINT HEAD GUARD
MENU
#CAP CLEANING
>
#SHEETMOUNT CLEANING
>
①
⑤


①
⑤
#INK SYSTEM OPT
>
>STORE INK SYS
>CLEAN INK SYS
>INITIAL CHARGE
>CHARGE(INKPACK)
>CHARGE CAP CL
#COLOR CHANGE (8->4)
>
#RESEAT PRINTHEAD
>
#CHECK PH QUALITY
>
#WASH PRINTHEADS
>
↑PRINTER SETUP
ADJUST HEATER
PRINTER MENU
#CONFIG PRINT
>
#ERROR LOG PRINT
>
#HISTORY PRINT
>
ADJUST MENU
#NOZZLE PRINT
#EXECUTE
#PRINT HEAD ADJUST
#EXECUTE
#EDGE SENSOR ADJUST
#EXECUTE
SETUP MENU
#LANGUAGE
>ENGLISH
>ENGLISH
>FRENCH
>ITALIAN
>GERMAN
>SPANISH
>PORTUGUESE
>JAPANESE
#TIME ZONE (GMT+)
>YY/MM/DD HH:MM +00
-12 to +12
⑥
⑦


⑥
⑦
#LENGTH UNITS
>MILLIMETER
>MILLIMETER
>INCH
#TEMPERATURE UNITS
>CENTIGRADE
>CENTIGRADE
>FAHRENHEIT
#BEEP(UNCAP CARRI)
>ON
>ON
>OFF
#BEEP(TUR TIMEOUT)
>ON
>ON
>OFF
#BEEP(INK ERROR)
>ON
>ON
>OFF
#BOOT VERSION
*X.XX
#PRINTER FW VER
*X.XX_YY
#MAIN PCA VER
*XXXXX
#ACT PCA VER
*X.XX
#CARRIAGE PCA VER
*XXXXX
#BTC VER
*XXX
#USB ADDRESS
*XXX
000 to 255
#USB SPEED
*HIGH-SPEED
HIGH-SPEED
FULL-SPEED
#FACTORY DEFAULT
>
#PRINTER FW UPGRADE
>
#JAM SENSITIVITY
>HIGH(DEFAULT)
>HIGH(DEFAULT
>LOW
HEATER MENU
#HEATER STANDBY TIME
>30 min
>NONE
>30min
>60min
>120min
>CONTINUOUS

Index

A

audio warning beep 49

B

bidirectional print position 88

C

CHARGE CAP CL 69
cleaning liquid set 14
color mode change 71
color replacement set 71

F

fill cap 68

H

head wash 14
  charging the ink system 19
heater control menu 80
heater preset temperature 81
heater temperature 79

I

ink
  remaining 22

L

LOOSE winding mode 47

M

margin
  minimizing right and left 28
media
  cut-sheet media 43
  feed or rewind 38
  lifting up off the platen 30
  remaining 23
  rewind 38
  sticking to platen 30
  thick media 31
media advance compensation 85
media preset
  copy 36
  creating a new preset 26
menu tree 102

N

nozzle clogging 67

P

preset media
  defult values 27
  select 28
printer
  turning off 8
print quality problems
  black banding 60
  edges rough or blurred 64
  missing dots 67
  smudged print 62
  vertical banding 65
  white banding 58

S

service cleaning 9
smart pass technology 83
strong cleaning 67