

# W8200 Pg

# SERVICE MANUAL

REVISION 0

**Canon**

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**AY3-4305-S02**

**TONER**  
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# I. OVERVIEW OF MANUAL

This manual presents information about the differences between the pigment ink model and dye ink model based on the service manual below.

AY3-4306-S02 W8200 Service Manual

AY3-4307-S02 TU-03 Service Manual

## 1: *W8200 SERVICE MANUAL*

This section presents extracts of modified sections from the W8200 Service Manual.

## 2: *TU-03 SERVICE MANUAL*

This section presents extracts of modified sections from the TU-03 Service Manual.

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# **1:**

# **W8200**

# **SERVICE MANUAL**

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## 1.2 Ink

### 1.2.1 Ink passages

Be careful not to touch the ink passages of the printer or to allow ink to stain the workbench, hands, clothes or the printer under repair.

The ink flows through the ink tank unit, carriage unit, purge unit, maintenance-jet tray waste ink absorber unit and the ink tubes that relay ink to each unit.



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Although the ink is not harmful to the human body, it contains organic solvents.

Avoid getting the ink in your mouth or eyes.

Flush well with water and see a doctor if contact occurs.

In case of accidental ingestion of a large quantity, call a doctor immediately.

#### <Dyes ink>

##### **Black/Photo Cyan/Photo Magenta/Magenta inks**

Glycerin 56-81-5, Ethylene glycol 107-21-1,  
Diethylene glycol 111-46-6, Isopropyl alcohol 67-63-0

##### **Cyan ink**

Glycerin 56-81-5, Ethylene glycol 107-21-1,  
Diethylene glycol 111-46-6, Isopropyl alcohol 67-63-0,  
Copper compound

##### **Yellow ink**

Diethylene glycol 111-46-6, Isopropyl alcohol 67-63-0

Since this ink contains dyes, stains will not come out of clothing.

#### <Pigment ink>

##### **Black ink**

Glycerin 56-81-5, Carbon-black

##### **Photo Cyan/Photo Magenta/Yellow inks**

Glycerin 56-81-5, Ethylene glycol 107-21-1

##### **Cyan ink**

Glycerin 56-81-5, Ethylene glycol 107-21-1, Copper compound

##### **Magenta ink**

Glycerin 56-81-5

Since this ink contains pigment, stains will not come out of clothing.

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### 2.3.3 Replacing the waste ink absorber

When the waste ink absorber becomes full, an error occurs to indicate that the tank must be replaced.

The printer will not operate until the error is canceled.

Be careful that the waste ink does not splash when you remove the waste ink absorber from the printer.

When the waste ink is full, the air flow fan unit is hold approx. 3.0kg, the maintenance-jet absorber unit is hold approx. 0.3kg and the waste ink absorber unit is hold approx. 10.5kg in the printer.



When replacing the waste ink absorber unit in the printer, same time replacing the air flow fan unit and the maintenance-jet absorber unit.

(Refer to [Part 5: 5.2.11 Waste ink absorber unit](#))

After replacing the waste ink absorber in the printer, be sure to always clear the counter value of the waste ink absorber using the Service mode. The counter value of the waste ink absorber is stored in the EEPROM (IC428) on the engine controller. Therefore, when replacing the engine controller, be sure to refer to [Part 5: 5.2.12 Boards](#).

### 2.3.4 Refilling the ink

After removing the ink in the printer according to the automatic or manual ink draining procedure to disassemble, reassemble, or transport/ship the printer, refill the ink as soon as possible upon completion of those tasks.

If the ink remaining in the printer after the removal has dried up, the ink deposits on the surfaces of the components may cause damage or abnormal operation.

### 2.3.5 Combination of printhead and ink tank

The printer shall be used only with the following combinations. When using the printer as a pigment ink model, be sure to install the pigment ink tanks and pigment printhead. When using the printer as a dye ink model, be sure to install the dye ink tanks and dye printhead.

## 1.2 Features

- The printer can be used as pigment ink model or dye ink model based on the user's selection of either pigment ink kit or dye ink kit. (Universal model\*<sup>1</sup>)

\*<sup>1</sup> : Either pigment ink model or dye ink model is set based on the type of printhead and ink tanks that are mounted at installation, and once this is done, no further changes can be made.

- Dye ink model:

High quality photo printing with a high resolution of a maximum of 1200x1200 dpi and dye inks in 6 colors (Bk, PC, C, PM, M and Y).

Pigment ink model:

High quality photo printing with a high resolution of a maximum of 1200x1200 dpi and pigment inks in 6 colors (Bk, PC, C, PM, M and Y).

- Bi-directional printing control for high-speed printing  
A one-inch (1280 nozzles) printhead with six rows of integrated nozzles is installed on the carriage.
- The printhead is completely separated from the high-capacity ink tank (330 ml). Ink is supplied to each printhead from the ink tank through its own tube.
- Roll media can be fed automatically from the roll media tray.
- Cut sheets can be fed manually from the tray.
- Capable of feeding wide paper (up to 44 inches)
- Capable of printing long paper up to 18 m in length
- Cutter is provided for automatic cutting of media.
- Convenient front operations, including feeding and delivery of media and replacement of ink tanks



### 1.3 Printhead

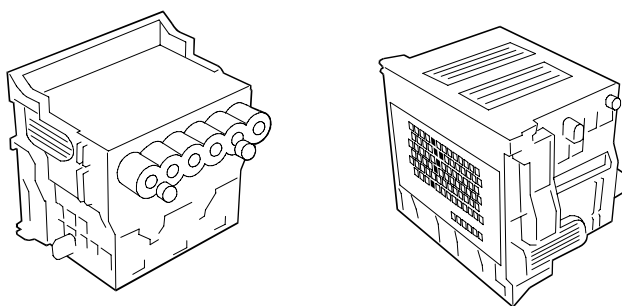
On the carriage, disposable printhead is installed, each of which contains six rows of integrated nozzles. There are two types of printheads; dye printhead for dye ink and pigment printhead for pigment ink.

Each row consists of 1280 nozzles, which are arranged in a staggered pattern for printing efficiency.

If print quality does not improve despite carrying out cleaning, the printhead should be replaced with a new one. Generally, it is recommended that the print head be replaced about 12 months after you have opened the package. The reference number of printable pages for each model is shown below.

Dye ink model:           Approx. 1,100 sheets (Standard mode (6-pass, Bi-directional),  
A0 size, 20% duty pattern for each color)

Pigment ink model:    Approx. 1,100 sheets (Standard mode (6-pass, Bi-directional),  
A0 size, 20% duty pattern for each color)



**Figure 2-2 Printhead**

### 1.4 Ink Tank

The ink tank is disposable.

There are six colors of dye based or pigment based Black (Bk), Photo Cyan (PC), Cyan (C), Photo Magenta (PM), Magenta (M) and Yellow (Y).

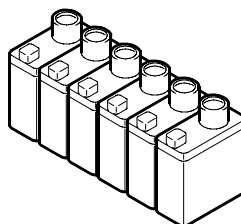
To install an ink tank, open the right cover of the printer and insert the tank. The printer features a mechanism by which only the correct color ink tank will fit in its given slot.

In the same way, once the dye model or pigment model is selected, a different type of ink tank cannot be loaded, even if it has the same color.

When the "No Ink" message is displayed, replace the ink tank with a new one. Also, the ink tanks should generally be replaced 6 months after you have opened the package. The reference number of printable pages for each model is shown below.

Dye ink model:           Bk/Approx. 1,200 sheets, PC/Approx. 180 sheets, C/Approx. 780 sheets,  
PM/Approx. 140 sheets, M/Approx. 530 sheets, Y/Approx. 270 sheets  
(Standard mode (6-pass, Bi-directional), A0 size, Bicycle (ISO No.5)  
pattern)

Pigment ink model:    Bk/Approx. 750 sheets, PC/Approx. 250 sheets, C/Approx. 650 sheets,  
PM/Approx. 120 sheets, M/Approx. 350 sheets, Y/Approx. 150 sheets  
(Standard mode (6-pass, Bi-directional), A0 size, Bicycle (ISO No.5)  
pattern)



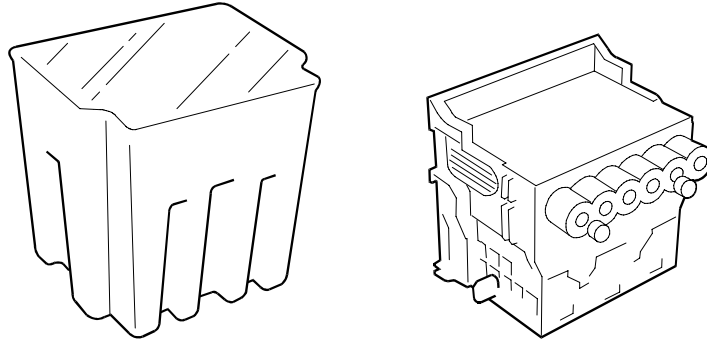
**Figure 2-3 Ink Tank**

## 1.7 Consumables

### 1.7.1 Printhead

The printhead for this printer is a consumable. This consumable printhead is the same as the printhead shipped with the printer.

Separate printhead are available for dye models and pigment models.

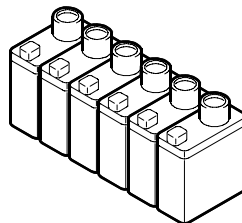


**Figure 2-6 Printhead**

### 1.7.2 Ink tank

The ink tanks are consumable and are available in six colors Black (Bk), Photo Cyan (PC), Cyan (C), Photo Magenta (PM), Magenta (M) and Yellow (Y). Consumable ink tanks are the same as the ink tanks shipped with the printer except for the package.

Separate ink tanks are available for dye models and pigment models. Each bottle has a life of 6 months from the time the package is opened.



**Figure 2-7 Ink Tank**

### 1.7.3 Cutter blade

The cutter blade in this printer is a consumable. The consumable cutter blades are identical to the cutter blades supplied with the printer.



**Figure 2-8 Cutter blade**

## 2. SPECIFICATIONS

### 2.1 General Specifications

#### 1. Type

W8200: Bubble jet printer (Stand type)

#### 2. Feeding system

Roll media: Automatic feeding

Cut sheet: Manual setting

#### 3. Feeding capacity

Roll media: one of the roll media tray (outer diameter: 130mm or less)

Standard roll holder (provided with the product): inner diameter of the paper tube:  
50.8mm (2")

Option roll holder: inner diameter of the paper tube: 76.2mm (3")

Cut sheet: 1 sheet

#### 4. Delivery system

Delivers the media with its printed side up in the forward direction

#### 5. Sheet delivery capability

1 sheet (Delivered in stacker)

#### 6. Cutter

Automated replaceable cartridge-type cutter

#### 7. Type of media

Dye ink model: Plain paper, Coated paper, Heavy coated paper, Glossy paper, Glossy film, BPF<sup>\*1</sup>, Proofing paper<sup>\*2</sup>, Photo semi-glossy paper, Photo glossy paper

<sup>\*1</sup> Use the BPF (Black Print Film) in an environment with humidity of 30% to 80%.

<sup>\*2</sup> When printing on the proofing paper, use the optional software RIP.

Pigment ink model: Heavy coated paper, Flame-resistant cloth, Back light film, Synthetic paper, Adhesive synthetic paper, Photo semi-glossy paper, Photo glossy paper

#### 8. Supported thickness

80µm to 500µm

**9. Media size**

Media	Width	Length
Roll media* <sup>1</sup>	297mm (11.69") to 1117.6mm (44")	210mm (8.27") to 18m (708.66")
Cut sheet	210mm (8.27")* <sup>2</sup> to 1117.6mm (44")	210mm (8.27")* <sup>2</sup> to 1600mm (63")

\*<sup>1</sup> Outer diameter of roll: 130mm or less.

\*<sup>2</sup> ISO A4 : 210.0mm x 297.0mm (8.27" x 11.69") or more.

**10. Printing area\*<sup>3</sup>**

Inner part of media excluding the following area:

Roll media; leading edge of 20mm, trailing edge of 23mm, and both right and left edges of 5mm

Cut sheet; leading edge of 20mm, trailing edge of 23mm, and both right and left edges of 5mm

\*<sup>3</sup> Max. print quality assurance area: Inner part of max. standard-size media of 1117.6mm x 1574.8mm (44" x 62") excluding the above margins.

**11. Printable area**

Inner part of media excluding the following area:

Roll media; leading edge of 5mm, trailing edge of 5mm, and both right and left edges of 5mm

Cut sheet; leading edge of 5mm, trailing edge of 20mm, and both right and left edges of 5mm

**12. Printing speed and direction\*<sup>4</sup>**

\*<sup>4</sup> Typical speeds when a JIS SCID No.5 (ISO400) that has been enlarged to A0 full-size is used as a test image.

**Dye ink model**

Media type	Mode	Print resolution (dpi)	Print-pass	Printing direction	Print speed* <sup>5</sup>
Plain paper	Draft	300x1200	2-pass	Bi-directional	Approx. 2.0 min.
	Standard	600x1200	4-pass	Uni-directional	Approx. 6.0 min.
Coated paper	Draft	300x1200	2-pass	Bi-directional	Approx. 2.0 min.
	Standard	600x1200	6-pass	Bi-directional	Approx. 6.0 min.
	High	600x1200	8-pass	Bi-directional	Approx. 10.0 min.
Proofing paper	Standard	600x1200	6-pass	Bi-directional	Approx. 6.0 min.
	High	1200x1200	8-pass	Bi-directional	Approx. 10.0 min.
	Highest	1200x1200	10-pass	Bi-directional	Approx. 15.0 min.
Other media	Standard	600x1200	6-pass	Bi-directional	Approx. 6.0 min.
	High	600x1200	8-pass	Bi-directional	Approx. 10.0 min.
	Highest	600x1200	10-pass	Bi-directional	Approx. 15.0 min.

**Pigment ink model**

Media type	Mode	Print resolution (dpi)	Print-pass	Printing direction	Print speed* <sup>5</sup>
Heavy coated paper	Draft	300x1200	2-pass	Bi-directional	Approx. 2.0 min.
	Standard	600x1200	6-pass	Bi-directional	Approx. 6.0 min.
	High	1200x1200	8-pass	Bi-directional	Approx. 10.0 min.
Back light film	Standard	600x1200	8-pass	Bi-directional	Approx. 6.0 min.
Synthetic paper	High	1200x1200	8-pass	Bi-directional	Approx. 10.0 min.
Adhesive synthetic paper	High	1200x1200	10-pass	Bi-directional	Approx. 15.0 min.
Other media	Standard	600x1200	6-pass	Bi-directional	Approx. 6.0 min.
	High	1200x1200	8-pass	Bi-directional	Approx. 10.0 min.
	High	1200x1200	10-pass	Bi-directional	Approx. 15.0 min.

\*<sup>5</sup> Speeds represent the time period from when the carriage starts moving until the final band is printed, excluding the data transmission time.

**13. Emulation**

None

**14. Interface**

Network (compliance with IEEE802.3 standards)

Compliance with USB specification 2.0 standards (option)

Compliant with IEEE1394-1995 standards and P1394a (draft2.0) (option)

**15. Printhead/Ink Tank**

Printhead and separate ink tanks

**Dye ink model**

Printhead	BC-1400
Architecture	Six rows of integrated nozzles arranged in parallel One row of nozzles: 1280 nozzles arranged in a staggered pattern
Maximum number of sheets that a printhead can print	Approx. 1,100 sheets (Standard mode (6-pass, Bi-directional), A0 size, 20% duty pattern for each color)
Ink tank	BCI-1411 Bk/PC/C/PM/M/Y
Ink type	Dye ink
Ink capacity	Approx. 330 ml
Maximum number of sheets that an ink tank can print	Bk/Approx. 1,200 sheets, PC/Approx. 180 sheets, C/Approx. 780 sheets, PM/Approx. 140 sheets, M/Approx. 530 sheets, Y/Approx. 270 sheets (Standard mode (6-pass, Bi-directional), A0 size, Bicycle (ISO No.5) pattern)

**Pigment ink model**

Printhead	BC-1450
Architecture	Six rows of integrated nozzles arranged in parallel One row of nozzles: 1280 nozzles arranged in a staggered pattern
Maximum number of sheets that a printhead can print	Approx. 1,100 sheets (Standard mode(6-pass, Bi-directional), A0 size, 20% duty pattern for each color)
Ink tank	BCI-1421 Bk / PC / C / PM / M / Y
Ink type	Pigment ink
Ink capacity	Approx. 330ml
Maximum number of sheets that a printhead can print	Bk/Approx. 750 sheets, PC/Approx. 250 sheets, C/Approx. 650 sheets, PM/Approx. 120 sheets, M/Approx. 350 sheets, Y/Approx. 150 sheets (Standard mode(6-pass, Bi-directional), A0 size, Bicycle (ISO No.5) pattern)

## 2. PRINTER SETUP

### 2.1 Installation

In addition to the printer unit, an accessory kit is needed when installing the printer. The accessory kits are prepared\* separately for each region.

Separate kits are available for dye models and pigment models.

\* Depending on the region, the items of the accessory kit are packed with the printer.



Take the following precautions when installing the printer.

- Always hold the handles when lifting and moving the printer. Never hold the printer by any other parts.
- The printer unit weight approx. 85 kg. At least two people are required to unpack the printer and take it out from the box.

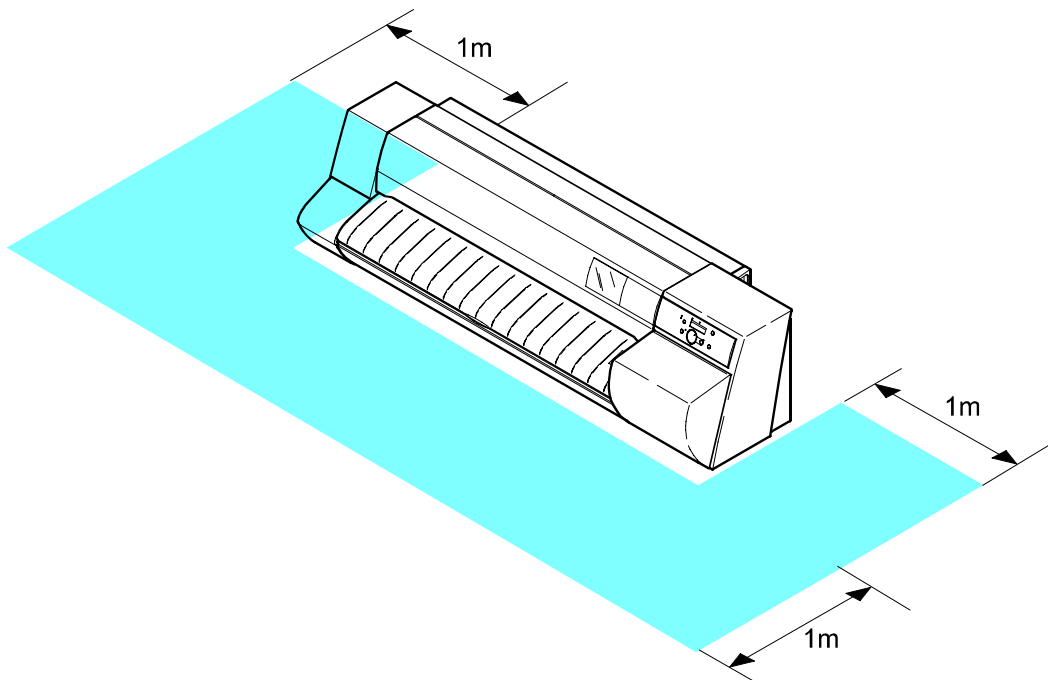


Figure 3-6 Required Space when Removing from Box

## 2.1.2 Unpacking

### a) Unpacking the printer

- 1) Open the package and make sure that the items below have been included:

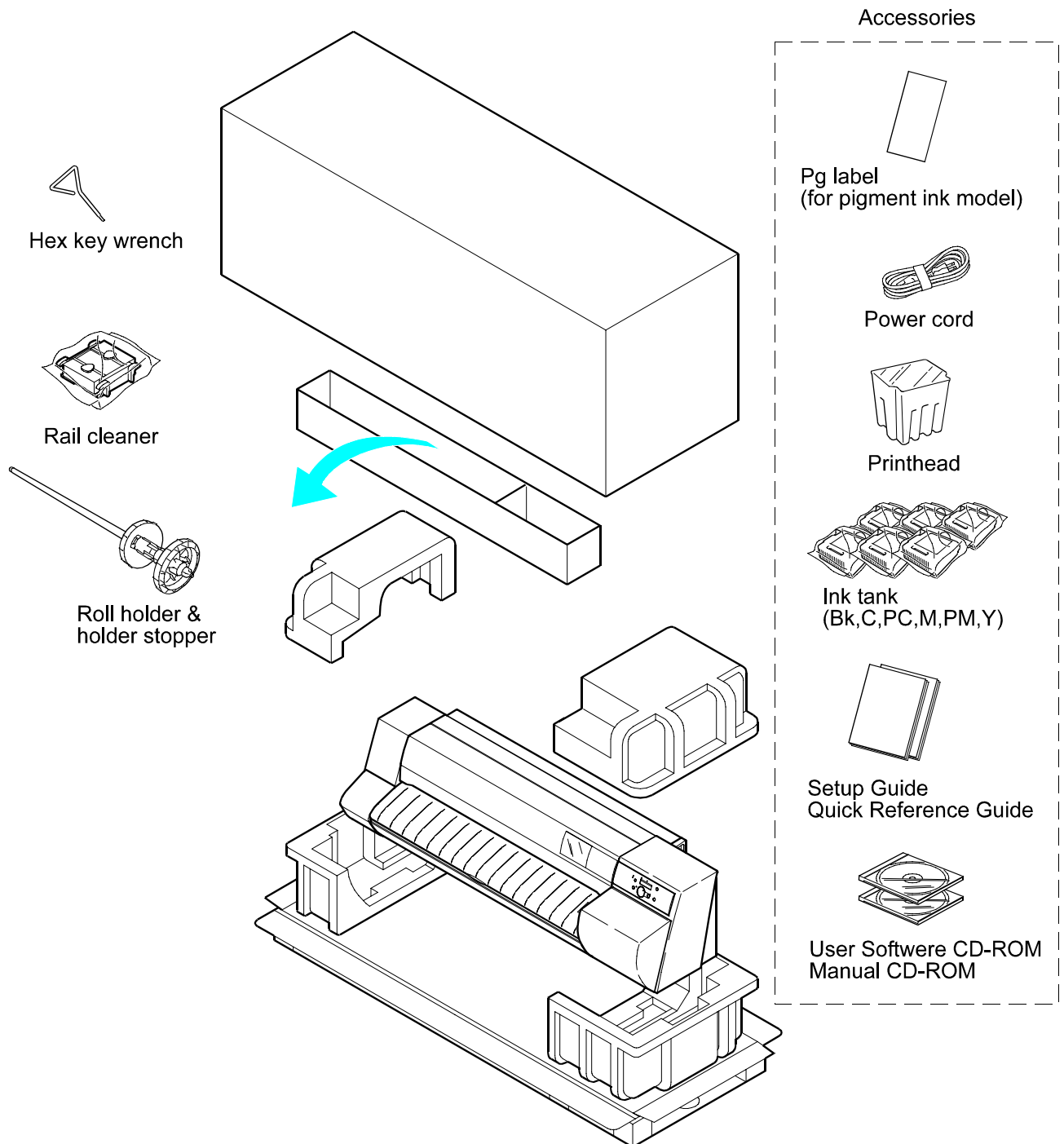


Figure 3-8 Unpacking the Printer

**b) Accessories**

Make sure that the items below have been included:

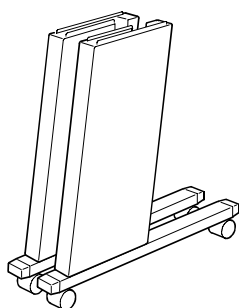
- Power cord
- Quick reference guide
- Printhead
- User software CD-ROM
- Ink tank
- Manual CD-ROM
- Set-up Guide
- Pg label (for Pigment ink model)

**NOTE**

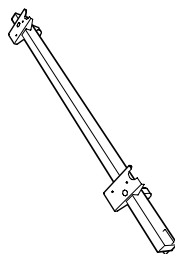
- Other types of power cords are also available. Make sure to use the correct type of accessory kit in accordance with the region (country) where the printer is installed.
- A interface cable is needed to connect the printer to a computer.

**c) Unpacking the stand**

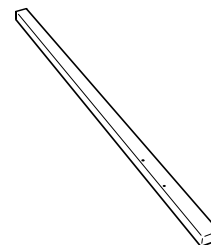
Unpack the stand, and check that the items shown below are provided.



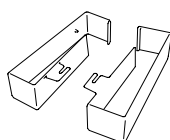
Stand leg L,R



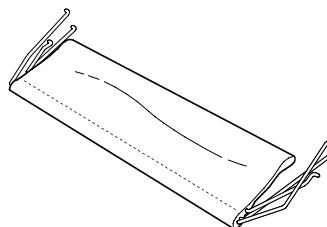
Stand upper stay



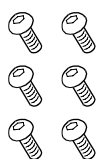
Stand lower stay



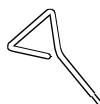
Leg cover L,R



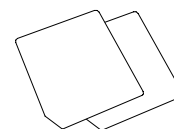
Stacker



Hex screw (16 pcs.)



Hex key wrench



Anti-slip sheet (2 sheets)

**Figure 3-10 Unpacking the Stand**



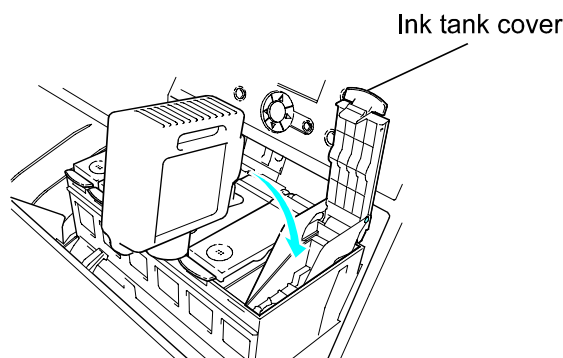
### 2.1.9 Installing the ink tanks

Follow the steps below to install the ink tanks.



For dye ink tanks, be sure not to drop or shake. For pigment ink tanks, slowly shake for 7 or 8 times before installation. Otherwise, the components of ink are precipitated and it may result in the deterioration of print quality.

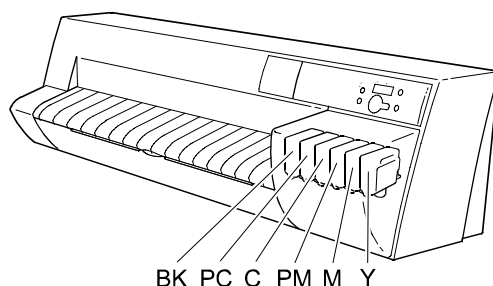
- 1) After installing the printhead, open the right cover.
- 2) Open the package containing the ink tank.
- 3) Install the ink tank while holding up the ink tank cover.
- 4) Press down the ink tank cover firmly until you feel a click as the ink tank is locked into position.
- 5) Repeat steps 2) to 4) until the ink tanks are installed for all 6 colors.
- 6) Close the right cover. The message "Ink Filling" is shown on the display, and the initial filling of the ink is started automatically. The times until the initial filling is completed are approx. 10 minutes for dye models and 24 minutes and a half for pigment models.



**Figure 3-17 Installing an Ink Tank**

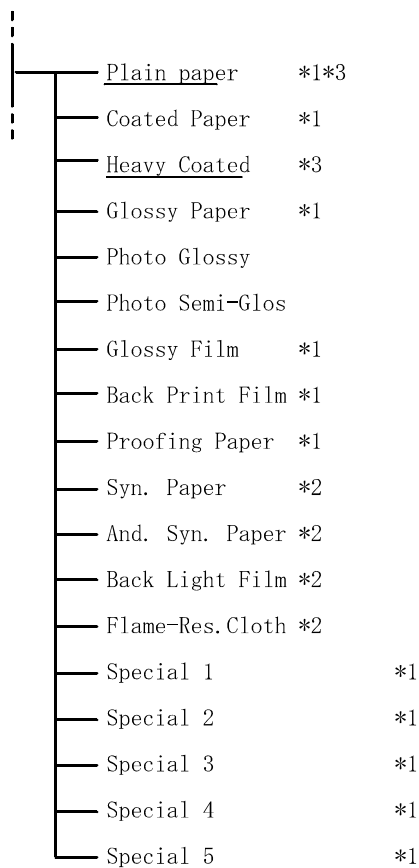


The ink tank covers have a mark which indicates which ink color goes in a particular slot, and each tank can be installed only in the correct slot. Never try to force a tank into a wrong slot, as this may damage the printer. Install Black (Bk), Photo Cyan (PC), Cyan (C), Photo Magenta (PM), Magenta (M) and Yellow (Y) from left to right.



**Figure 3-18 Installing Order of Ink Tanks**

\*1: Displayed only for Dye ink model  
 \*2: Displayed only for Pigment ink model  
 \*3: Default values are underlined  
 Dye ink model=Plain Paper  
 Pigment ink model=Heavy Coated



**Figure 3-41 Map of the Media Type**

### 5.1.3 Details of service mode

The details of the Service mode menus are as shown below.

#### a) DISPLAY

Displays and prints the printer information.

#### 1) PRINT-INF

Prints the following information.

- DISPLAY > SYSTEM
- DISPLAY > WARNING
- DISPLAY > ERROR
- DISPLAY > P-SETTING
- DISPLAY > INK CHECK
- ADJUST
- COUNTER

#### PRINT INF

Canon Large Format Printer W8200

ation Large Format Printer W8200

SYSTEM

TYPE:DYE    TMP BK:23.0    TMP C:24.0    TMP M:24.0    TMP Y:23.0    TMP PC:23.0    TMP PM:24.0

SIZE-LF:    0.0    SIZE-CR:    913.3

HEAD

S1:000F454E    L1:D62D25A0

INK

BK:F1250710    C:F1241810    M:F1242910    Y:F1250810    PC:F1242310    PM:F1242410

WARNING

01:W0100F 02:W0100F 03:W01021 04:W01021 05:W01021 06:W00000 07:W00000 08:W00000 09:W00000 10:W00000  
11:W00000 12:W00000 13:W00000 14:W00000 15:W00000 16:W00000 17:W00000 18:W00000 19:W00000 20:W00000

ERROR

01:E02010 02:E02005 03:E00000 04:E00000 05:E00000 06:E00000 07:E00000 08:E00000 09:E00000 10:E00000  
11:E00000 12:E00000 13:E00000 14:E00000 15:E00000 16:E00000 17:E00000 18:E00000 19:E00000 20:E00000  
21:E00000 22:E00000 23:E00000 24:E00000 25:E00000 26:E00000 27:E00000 28:E00000 29:E00000 30:E00000

P-SETTING

01:R101308W0823-    02:R101226W0053-    03:100ZZ4S0050W    04:100302W0047W    05:R10336001928-    06:R103368W1901-    07:R103368W1858W  
08:00000000000000    09:00000000000000    10:00000000000000    11:00000000000000    12:00000000000000    13:00000000000000    14:00000000000000  
15:00000000000000    16:00000000000000    17:00000000000000    18:00000000000000    19:00000000000000    20:00000000000000

INK CHECK

0    0    0    0    0    0

ADJUST

A1:+0    A2:+0    A3:+2    A4:+1    A5:+1  
B1:-4    B2:-4    B3:-2    B4:-3    B5:-3    D2:+0    D3:+0    D4:+0    D5:+0  
C1:-3    C2:-1    C3:-1    C4:-2    C5:-2    E2:+0    E3:+0    E4:-1    E5:-1  
L:+0    M:+0    N:+0    P:+0    Q:+0    R:+0    S:+0    T:+0    U:+0    V:+0    W:+0    X:+0    Y:+0    Z:+0

COUNTER

PRINTER    :    6    79    805    28  
CARRIAGE   :    1    1  
PURGE       :    2    2    0  
INK          :    3    3    3    3    3    2  
HEAD        :    655    108    109    108    108    111    111  
CUT SHEET   :    0    0    1    0    0  
ROLL MEDIA   :    4    0    1    0    0  
MEDIA-ALL    :    1    1    0    4    0    0    0    0  
MEDIA-00     :    0    0    1    0    0    MEDIA-01:    0    0    1    0  
MEDIA-02     :    0    0    0    0    0    MEDIA-03:    4    0    0    0  
MEDIA-04     :    0    0    0    0    0    MEDIA-05:    0    0    0    0  
MEDIA-06     :    0    0    0    0    0    MEDIA-07:    0    0    0    0  
MEDIA-OTHER:    0    0    0    0    0

2)

3)

4)

5)

6)

7)

e)

Adjustment settings of MAIN MENU "Pattern A".

Adjustment settings of MAIN MENU "Pattern B".

Dye ink model

L: Plain Paper

M: Coated Paper

N: Heavy Coated

P: Glossy Paper

Pigment ink model

L: Heavy Coated

M: Photo Glossy

N: Photo Semi-Glos

Q: Photo Glossy

R: Photo Semi-Glos

S: Glossy Film

T: Back Print Film

U: Proofing Paper

V: Special 1

W: Special 2

X: Special 3

Y: Special 4

Z: Special 5

S: Back Light Film

T: Flame-Res. Cloth

R: Not used

**Figure 3-50 PRINT-INF (Image)**

#### 2) SYSTEM

Displays the printer information shown below.

Display	Description
TYPE	Engine controller type setting
H-TMP BK	Calibrated temperature of head temperature sensor (Bk)
H-TMP C	Calibrated temperature of head temperature sensor (C)
H-TMP M	Calibrated temperature of head temperature sensor (M)
H-TMP Y	Calibrated temperature of head temperature sensor (Y)
H-TMP PC	Calibrated temperature of head temperature sensor (PC)
H-TMP PM	Calibrated temperature of head temperature sensor (PM)
SIZE LF	Detected size of loaded media (feeding direction)
SIZE CR	Detected size of loaded media (carriage direction)

## 7) P-SETTING

Displays the print setting history (up to 20 events). The newest event has the smallest history number.

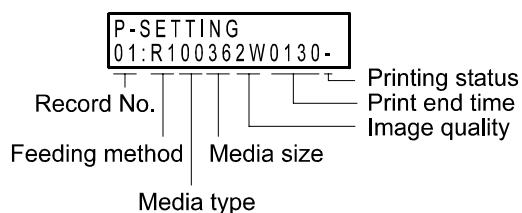


Figure 3-53 P-SETTING

<i>Classification</i>	<i>Display</i>	<i>Description</i>
Feeding method R1	Roll media feeding	
	C1	Cut sheet feeding
Media type	00	Plain paper
	01	Coated Paper, Heavy Coated
	02	Glossy Paper
	03	Photo Glossy, Photo Semi-Glos
	04	Glossy Film
	05	Syn. Paper, And. Syn. Paper, Matte Film
	06	Back Print Film, Back Light Film
	07	Flame-Res.Cloth
	ZZ	All other types
Media size	42	42 inches or more
	36	36 to less than 42 inches
	30	30 to less than 36 inches
	24	24 to less than 30 inches
	LL	Banner-size sheets exceeding the maximum fixed size
	ZZ	Other sizes
Image quality	2W	2-pass, Bi-directional (draft)
	4S	4-pass, Uni-directional (standard)
	6W	6-pass, Bi-directional (standard)
	8W	8-pass, Bi-directional (high)
	AW	10-pass, Uni-directional (highest)
Print end time	0000	Seconds
Printing status	-	Printing ends normally
	W	Warning occurs during printing
	E	Error occurs during printing

## 8) INK CHECK

Display the execution history of "Ink Check Off" in the Main Menu.

0= No execution history

1= One or more execution histories exist

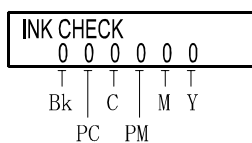
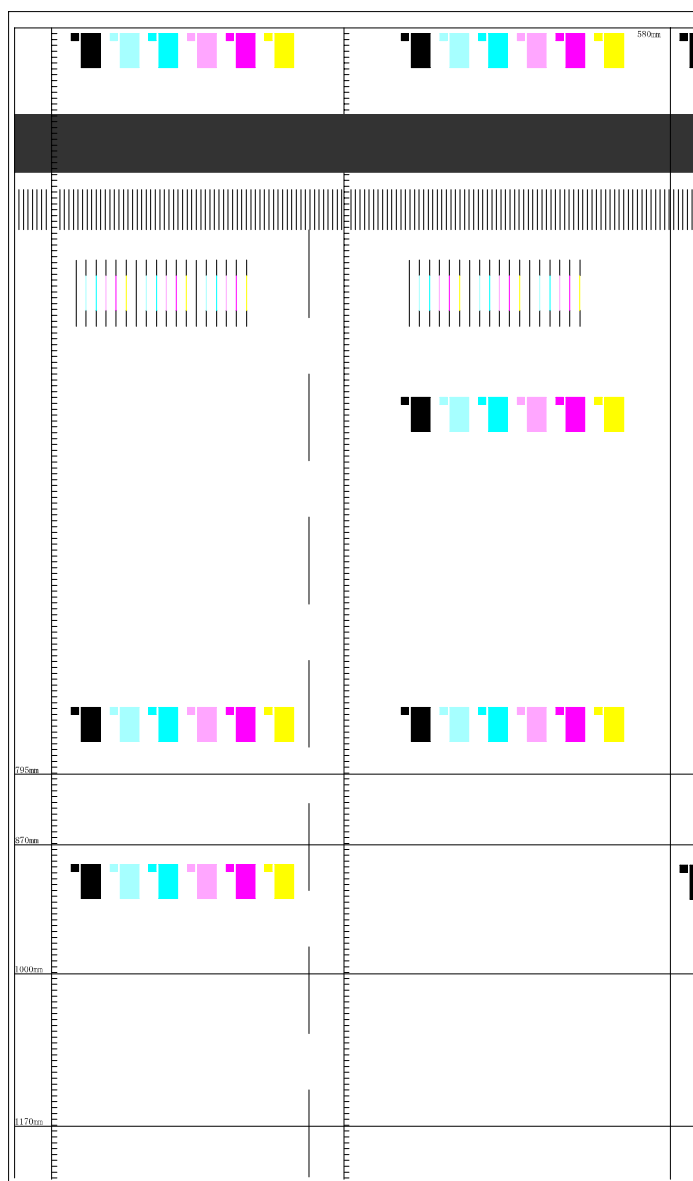


Figure 3-54 INK CHECK

- PRINT PATTERN > SCALE  
Maintenance test pattern



**Figure 3-57 SCALE (Image)**

- BAND

This mode performs the same adjustment as Print Pattern B in the Main Menu. However, in contrast to Print Pattern B, which performs correction between bands for each media type, the internal parameters of this mode result in a single batch correction between bands for all media types. (Adjustment range: -5 to +5)

Use the following media, and enter the adjustment values for this mode based on the image obtained from executing the PRINT PATTERN>BAND command.

Dye model=Glossy film

Pigment model=Photo glossy paper

- NOZZLE CHK POS.

This command is executed after replacing the linear scale, and it is used to adjust the optical axis of the head management sensor.

• MEDIA-ALL Cumulative printing length for different media types

<b>Display</b>	<b>Description</b>	<b>Unit</b>
00	Plain Paper	m
01	Coated Paper, Heavy Coated	m
02	Glossy Paper	m
03	Photo Glossy, Photo Semi-Glos	m
04	Glossy Film	m
05	Syn. Paper, And. Syn. Paper, Matte Film	m
06	Back Print Film, Back Light Film	m
07	Flame-Res.Cloth	m
OTHER	Other media	m

	Cumulative printing length for different media widths
MEDIA-00	(Plain Paper)
MEDIA-01	(Coated Paper, Heavy Coated)
MEDIA-02	(Glossy Paper)
MEDIA-03	(Photo Glossy, Photo Semi-Glos)
MEDIA-04	(Glossy Film)
MEDIA-05	(Syn. Paper, Adh. Syn. Paper, Matte Film)
MEDIA-06	(Back Print Film, Back Light Film)
MEDIA-07	(Flame-Res.Cloth)
MEDIA-OTHER	(Other media)

<b>Display</b>	<b>Description</b>	<b>Unit</b>
42	42" or more	m
36	36" to less than 42"	m
30	30" to less than 36"	m
24	24" to less than 30"	m
OTHER	Less than 24"	m

## 6. PRINTER SPECIAL MODE

In addition to Service mode, this printer is provided with the following special modes.

- Controller Replace Mode
- Download Mode

### 6.1 Controller Replace Mode

This mode is used when replacing the system controller and engine controller.

This mode transfers the setting values, counter values, and other data before replacement in each controller to the new controller.

For details about entering and operating this mode, refer to "[Part 5: 5.2.12 Boards](#)".

### 6.2 Download Mode

This mode is used for troubleshooting when upgrading the firmware.

For details about entering and operating this mode, refer to "[Part 3: 7.2.1 Firmware Recovery Procedure](#)".

### 6.3 Reset Mode for Dye/Pigment Model Settings

This is used when the dye model/pigment model registration inside the printer is set incorrectly due to transport problems or misoperation at initial installation (such as when the pigment ink tanks are mistakenly loaded after installing a dye printhead).

For details on how to start this mode and use this mode, see "[Part 5: 6.2.3 Reset for dye/pigment model setting](#)".

**d) Highest mode**

In super-high quality print mode, a single band is printed using an 10-pass operation.

This mode is used by selecting the "Highest" Fine option under Print Quality settings in the printer driver.

For proof paper, the mask pattern control divides the image data into five sections for each color, and then nozzle block control is used to divide this data into two sections for 10-pass bi-directional printing.

For other paper, the mask pattern control divides the image data into 10 sections for each color for 10-pass bi-directional printing.

**Table 4-1 Print Modes****Dye ink model**

Mode	Print resolution (dpi)	Print pass	Print direction	Media type
Draft	300x1200	2-pass	Bi-directional	Plain paper, Coated paper
Standard	600x1200	4-pass	Uni-directional	Plain paper
	600x1200	6-pass	Bi-directional	Except Plain paper
High	600x1200	8-pass	Bi-directional	Except Plain paper and Proofing paper
	1200x1200	8-pass	Bi-directional	Proofing paper
Highest	600x1200	10-pass	Bi-directional	Except Plain paper, Coated paper and Proofing paper
	1200x1200	10-pass	Bi-directional	Proofing paper

**Pigment ink model**

Mode	Print resolution (dpi)	Print pass	Print direction	Media type
Draft	300x1200	2-pass	Bi-directional	Heavy coated paper
Standard	600x1200	6-pass	Bi-directional	Except Back light film, Synthetic paper and Adhesive synthetic paper
	1200x1200	8-pass	Bi-directional	Back light film, Synthetic paper and Adhesive synthetic paper
High	1200x1200	8-pass	Bi-directional	All media
Highest	1200x1200	10-pass	Bi-directional	Except Heavy coated paper



## 3.5 Purge Unit

### 3.5.1 Functions of purge unit

To maintain high print quality, the purge unit performs maintenance of the nozzles in the printhead.

The functions of the purge unit include capping, cleaning, and ink supply.

#### a) Capping

Capping prevents nozzle drying and dust adhesion by pressing the cap of the purge unit to the face plate on the nozzle section of the printhead.

Capping is performed when printing is completed, at the start of the suction operation, and when switching to the standby state due to an error.

The capping operation also connects the ink passage between the printhead and purge unit.

#### b) Cleaning

Cleaning includes a wiping operation for removing paper fibers and dried ink deposits adhering to the nozzle face plates of the printhead, a suction operation for removing ink from the nozzles and drawing new ink to refresh the nozzles, and a maintenance jet operation where ink is sprayed from the nozzles to the cap or maintenance jet tray to remove bubbles in the nozzles and dust and other foreign particles near the nozzles. The combination of these three maintenance operations improves nozzle discharge performance.

Details of the cleaning function are shown in the table below.

Printer status	Cleaning description	Predefined period (h)	Ink consumption*1
At installation	Initial refilling suction		Approx. 38 g
At power-on when more than a predefined amount of ink has been discharged since the last cleaning C or initial refilling suction	Cleaning C		Approx. 13g
At power-on when the predefined period has elapsed since the last cleaning C or initial refilling suction	Cleaning C	D <sup>*4</sup> : 720<= $T$ <2160 P <sup>*5</sup> : 480<= $T$ <1800	Approx. 13g
At power-on when more than the predefined period has elapsed since the last cleaning C or initial refilling suction	Initial refilling suction	D: $T$ >=2160 P: $T$ >=1800	Approx. 38g
At the start of printing when the predefined period has elapsed since the last cleaning C or initial refilling suction	Cleaning C	D: 720<= $T$ <2160 P: 480<= $T$ <1800	Approx. 13g
At the start of printing when more than the predefined period has elapsed since the last cleaning C or initial refilling suction	Initial refilling suction	D: $T$ >=2160 P: $T$ >=1800	Approx. 38g
At the start of printing when less than the predefined period has elapsed since the last printing was completed	Wiping + Maintenance jet	$T$ <48	Approx. 0.008 g
At the start of printing when the predefined period has elapsed since the last printing was completed	Wiping + Maintenance jet	48<= $T$ <168	Approx. 0.016 g
At the start of printing when more than the predefined period has elapsed since the last printing was completed	Cleaning A	$T$ >=168	Approx. 1 g
At the start of printing when more than the predefined period has elapsed after printing is suspended due to an error during printing	Cleaning A	$T$ >=3	Approx. 1 g
Scan period during printing	Maintenance jet		5 discharges per nozzle
After printing is completed when a predefined amount of ink has been discharged since the last wiping*2	Wiping + Maintenance jet		Approx. 0.008 g
After printhead replacement	Cleaning C		Approx. 13 g
Manual cleaning (Head Cleaning A)	Cleaning A		Approx. 1g
Manual cleaning (Head Cleaning B)	Cleaning B		Approx. 6g
At power-on when less than the predefined period has elapsed since the abnormal end*3	Cleaning A	$T$ <=72	Approx. 1 g
At power-on when more than the predefined period has elapsed since the abnormal end*3	Cleaning C	$T$ >72	Approx. 13 g

\*1 Ink consumption amount for each nozzle array.

\*2 In the banner print mode, the cleaning operation status upon reaching a predefined point.

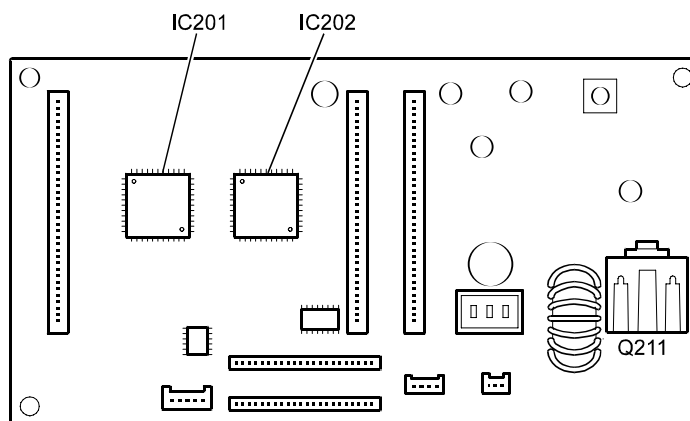
\*3 When the power button was not pressed and capping could not be performed, such as during a power outage or when the power cable is unplugged.

\*4 D=Dye ink

\*5 P=Pigment ink

## 4.4 Carriage Relay PCB

### 4.4.1 Carriage relay PCB components



**Figure 4-31 Carriage Relay PCB**

**a) Receiver ASIC (IC201, IC202)**

The receiver ASIC receives and recovers the image data that has undergone differential processing by the driver ASIC (IC410, IC411) in the engine controller, and then sends this data to the printhead.

**b) Regulator IC (Q211)**

The regulator IC is used to generate the discharge drive power supply (Dye ink model:18 V/Pigment ink model:19 V) of the printhead from +26.5 V.

## 6. ADJUSTMENT AND SETUP

### 6.1 Adjustment and Setup Items

#### 6.1.1 Mistaken insertion of ink tanks prevention mechanism setting

This is activated when a mistaken setting is made at the time of initial installation, such as when the user touches the mechanism for preventing mistaken insertion before installing the ink tanks.

#### 6.1.2 Adjustment of head holder tilt lever

This procedure is performed when the edge sections of the image are not sharp when printing in Draft mode (2-pass).

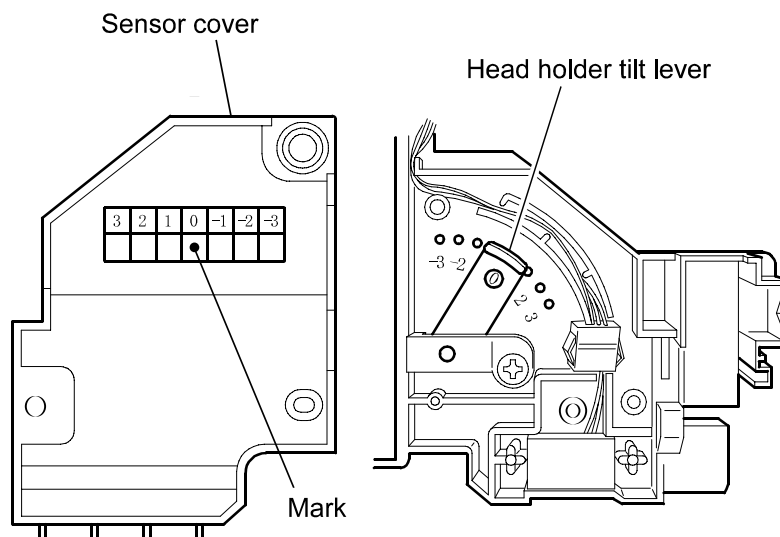
#### 6.1.3 Reset for dye/pigment model setting

This is used when the dye model/pigment model registration inside the printer is set incorrectly due to transport problems or misoperation at initial installation (such as when the pigment ink tanks are mistakenly loaded after installing a dye printhead).

### 6.2.2 Adjustment of the head holder tilt lever

This adjustment is performed when the edge sections of the image are not sharp when printing in Draft mode (2-pass).

After adjusting the head holder tilt lever, mark the number visible from the window of the head holder tilt lever with the number inside the sensor cover.



**Figure 5-47 Adjusting the Head Holder Tilt Lever**

### 6.2.3 Reset for dye/pigment model setting

This procedure is used as a remedy when the dye/pigment model registration inside the printer is set incorrectly due to transport problems or misoperation at initial installation (such as when the pigment ink tanks are mistakenly loaded after installing a dye printhead).

There are three possible remedy procedures based on four situations when the problem occurs.

- a. When the correct combination of ink tanks cannot be inserted**  
(Due to transport conditions, the misinsertion prevention flag has been moved.)
- b. When realized your mistake while installing the first color of ink tanks**  
(The ink supply needle has not been inserted into the ink tank<sup>\*1</sup>, but the misinsertion prevention flag is locked.)
- c. When realized your mistake after installing one ink tank or more (before closing the right cover)**  
(The ink supply needle is inserted into the ink tank and ink is supplied to the ink tank unit.)
- d. When realized your mistake after installing one ink tank or more and closing the right cover<sup>\*2</sup>**  
(The ink supply needle is inserted into the ink tank and ink is supplied to the ink tank unit.)

<sup>\*1</sup>: When the ink supply needle is inserted into the ink tank, even before ink filling, ink flows into the sub-buffer of the ink tank unit spontaneously.

<sup>\*2</sup>: The closing of the right cover as a trigger, the types of print head and ink tanks are checked, and if the mismatch is detected, an error (E02802 or E02805 to E02809) will be displayed.

The remedy procedure for each case is shown in the next page.

**a. When the correct combination of ink tanks cannot be inserted****b. When realized your mistake while installing the first color of ink tanks**

- 1) Check that the ink supply needle has not been inserted into the ink tank\*<sup>1</sup> and no ink is being supplied into the ink tank unit.
- 2) Return the misinsertion prevention flag of the respective color back to the default setting. (See "[Part 5: 6.2.1 Mistaken insertion of ink tanks prevention mechanism setting](#)".)
- 3) Install the correct ink tank, and then continue with the installation operation.

\*<sup>1</sup>: When the ink supply needle is inserted into the ink tank, even before ink filling, ink flows into the sub-buffer of the ink tank unit spontaneously.

**c. When realized your mistake after installing one ink tank or more (before closing the right cover)**

- 1) Check that no ink is being supplied inside the ink tube unit.
- 2) Replace the ink tank unit. (See "[Part 5: 5.2.10 Ink tank unit](#)".)
- 3) Install the correct ink tank, and then continue with the installation operation.

**d. When realized your mistake after installing one ink tank or more and closing the right cover\*<sup>2</sup>**

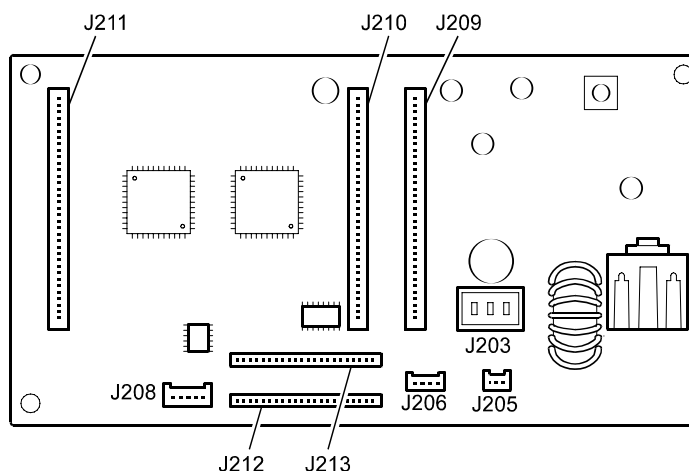
- 1) As an error (E02802 or E02805 to E02809) is shown on the display, install the correct combination of printhead and ink tanks according to the error.
- 2) Perform ink filling\*<sup>3</sup> following the installation sequence. After filling ink, when "Load Roll Media" is shown on the display, turn off the power.
- 3) Turn on the printer while holding down the ONLINE button, ENTER button, CANCEL button, and PAPER SOURCE button.
- 4) Check that "Canon W8200" is shown on the display, and then release the buttons. When printer enters Reset mode for the dye/pigment model setting, all the LEDs on the operation panel turn on.
- 5) "TYPE RESET" is shown on the display.
- 6) Select "YES", and then reset the dye/pigment model setting in the printer.  
When reset is selected, the ink drain sequence is executed. It takes approximately 4 minutes for the process to be completed.
- 7) Check that "Turn Power Off!!" is shown on the display, and then turn off the power.
- 8) Unplug the power cord from the outlet.
- 9) Move the carriage, and then takeout the printhead.
- 10) Replace the following parts
  - Ink tube unit : See "[Part 5: 5.2.6 Ink tube unit](#)".
  - Purge unit : See "[Part 5: 5.2.9 Purge unit](#)".
  - Ink tank unit : See "[Part 5: 5.2.10 Ink tank unit](#)".
- 11) Turn on the printer, and then continue with the installation operation (from installation of the printhead). At this time, replace the printhead with a new one\*<sup>4</sup>.

\*<sup>2</sup>: The closing of the right cover as a trigger, the types of print head and ink tanks are checked, and if the mismatch is detected, an error (E02802 or E02805 to E02809) will be displayed.

\*<sup>3</sup>: When the right cover is closed, even if the error (E02802 or E02805 to E02809) is detected, the type of inks such as dye or pigment is registered inside the printer. If the ink filling process in the installation sequence is not terminated correctly, the registered type of ink in the printer cannot be reset because of internal communications.

\*<sup>4</sup>: It is necessary to replace the printhead as the mixed dye-and-pigment inks have been flowed in the printhead.

### 8.3 Carriage Relay PCB



**Figure 5-50 Carriage Relay PCB**

#### J203

Pin number	Signal name	IN/OUT	Function
1	RGV19	OUT	Power supply for driving head (Dye ink model:+18V/Pigment ink model:+19V)
2	HGND	—	GND
3	GNDR	—	GND

#### J205

Pin number	Signal name	IN/OUT	Function
1	GND	—	GND
2	JOINTSNS	IN	Carriage cover opening and closing detection signal
3	+5V	OUT	Power supply (+5.1V)

#### J206

Pin number	Signal name	IN/OUT	Function
1	CRENCB	IN	Linear scale phase signal B
2	+5V	OUT	Power supply (+5.1V)
3	CRENCA	IN	Linear scale phase signal A
4	GND	—	GND

#### J208

Pin number	Signal name	IN/OUT	Function
1	PTC	OUT supply	Media sensor light-receiving element power
2	PTE	IN signal	Media sensor light-receiving element detection
3	PLED_A	OUT	Media sensor light-emitting element power supply
4	PLED_K	IN signal	Media sensor light-emitting element ON/OFF
5	NC	—	NC



# **2:**

# **TU-03 SERVICE MANUAL**

Page

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1. SPECIFICATIONS



## 1. SPECIFICATIONS

1. Type	Stand built-in type
2. Wind-up method	Auto (optical loop detection system) and Manual
3. Cardbord tube for wind-up	2- or 3-inch cardboard tube (Any ordinary cardbord tube, which is used as a core of the roll media, can also be used.)
4. Sliding range of cardbord tube holder	594 to 1127.8mm (44 inch)
5. Applicable roll media width for winding	A1, A0, 24", 36", 42", 44"
6. Applicable media type for winding	<b>When Dye ink model of the W8200:</b> Coated Paper, Heavy Coated Paper, Glossy Paper, Proofing Paper, Photo Glossy Paper, Photo Semi-Glossy Paper <b>When Pigment ink model of the W8200:</b> Heavy coated paper, Flame-resistant cloth, Back light film, Adhesive synthetic paper
7. Maximum wind-up amount (diameter)	ø150mm or less (after getting rid of stack) (The one roll media for approx. length of 50m)
8. Winding rotation	10.7rpm
9. Wind-up torque	0.392N/m (4.0kgf/cm)
10. Running noize	58dB (A) or less (including the running sound from the printer)
11. Operating	Temperature: 15~35°C Humidity: 10~80%RH
12. Power supply	DC26.5V+5%/-5%, DC5.1V+5%/-5% (supplied from the printer)
13. Rating (current)	250mA(26.5V), 50mA(5.1V)
14. Weight	15kg (including the mounting brackets)