Canon

Practical Guide
for Advanced Printing

This document provides useful explanations about procedures for printing documents and solutions to common printing problems. We recommend you read this document and the e-Manual.

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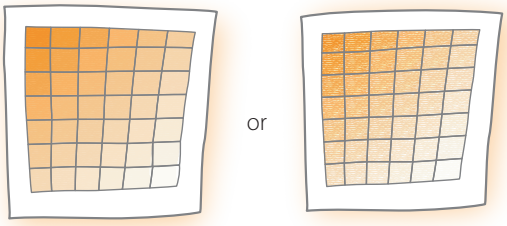
Types of Paper You Can Use for Calibration

Recommended Types of Calibration

The density and tone of colors may change as you print large volumes of pages. Even if you are printing the same image, slight variations in the shades of colors may become apparent. This is characteristic to this machine. You need to calibrate the colors periodically to compensate for the difference in colors. The following two types of calibration can be done periodically. Refer to the following and select the type of calibration that meets your needs.



Enhanced Calibration or Simple Calibration

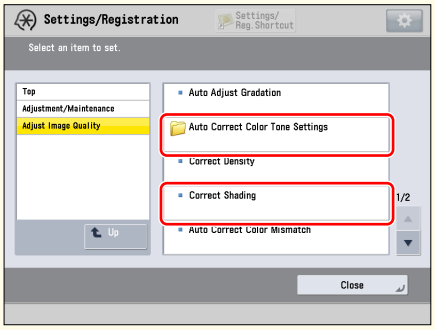
If you want to calibrate the colors as precisely as possible even if it takes time and effort	Enhanced Calibration (p. 4)
If you want to calibrate the colors quickly and easily*1	Simple Calibration (p. 11)
If the environment of the location in which you have installed the machine is outside the recommended range*2	Enhanced Calibration (p. 4)

*1 You can select this type of calibration only if the environment in which the machine is installed is within the recommended range*2.

*2 For information on the environment (temperature and humidity) for installing the machine and storing paper, see the *Installation and Operating Environment Guidelines* or the *Specialty Media Handling Guide*.

Other Types of Calibration You Can Do When You Notice Variations in the Shades and Tones of Colors

The following calibrations can be made in addition to Enhanced Calibration and Simple Calibration. Calibrate the machine only if you notice irregularities in the colors. (You do not need to calibrate the machine on a regular schedule.) Make sure to do automatic gradation calibration prior to doing either one of the following calibrations. If you are using the imagePRESS Server and a spectrophotometer, such as an X-Rite i1 Pro, you can make more precise corrections by doing both Shading Correction and Automatic Color Tone Correction. In this case, do these corrections in the following order; Automatic Gradation Calibration → Shading Correction → Automatic Color Tone Correction.



Shading Correction

Do this if the color densities become uneven.

Automatic Color Tone Correction

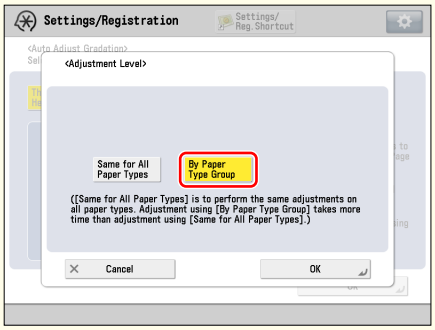
Do this if you notice differences in the color tones.

Enhanced Calibration

This type of calibration is recommended if you want to correct the shades and tones of colors as precisely as possible, even if it takes more time and effort. This is also suitable if the environment (temperature and humidity) in which the machine is installed does not satisfy the recommended range for some reason. This type of calibration uses specific types of paper, which correspond to the types of paper you want to print on, so that more precise corrections can be achieved. The paper is categorized in three groups, group A, B, and C, for the purpose of more precise calibration. See the list in "Types of Paper You Can Use for Calibration" at the end of this document. Find out in which group the paper you want to print on is categorized, and then select the corresponding type of paper you can use for calibration. To keep making corrections precisely, calibrate the machine for the paper you are printing on whenever you print on paper of a different group. For example, if you print on plain paper, which is listed in group A, in the morning, and print on Heavy 5, which is listed in group B, in the afternoon, calibrate the machine for paper in group A (p. 5) before starting printing jobs in the morning and calibrate the machine for paper in group B (p. 5) before starting printing jobs in the afternoon.

Prior to Starting Enhanced Calibration

See "Adjustment for Image Quality and Finish (Calibration)" > "Automatic Gradation Adjustment" > "Changing Adjustment Level" in the e-Manual, and set [Adjustment Level] for automatic gradation adjustment to 'By Paper Type Group'. If you are not sure of the name of the paper to use for calibration, contact your local authorized Canon dealer.



Calibrating for Paper in Group A

1 Load the paper for calibration for group A into the paper drawer.

2 Press ⊛ → [Adjustment/Maintenance] → [Adjust Image Quality] → [Auto Adjust Gradation] → [Thin 1/Plain/Heavy 1-4].

3 Select the paper you loaded in step 1 for [Select Paper to Adjust].

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Selecting Paper for Calibration" in the e-Manual

4 Do automatic gradation calibration (full calibration).

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Full Adjustment" in the e-Manual

Calibrating for Paper in Group B

1 Load the paper for calibration for group B into the paper drawer.

2 Press ⊛ → [Adjustment/Maintenance] → [Adjust Image Quality] → [Auto Adjust Gradation] → [Heavy 5].

3 Select the paper you loaded in step 1 for [Select Paper to Adjust].

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Selecting Paper for Calibration" in the e-Manual

4 Do automatic gradation calibration (full calibration).

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Full Adjustment" in the e-Manual

5 If the paper you want to print on is coated and you are using the imagePRESS Server, do steps 1 to 8 in the "Calibrations on the imagePRESS Server" in "Required Calibrations." (p. 17)

- Do calibration on the imagePRESS Server using "OK Top Coat Plus (34 lb. (127.9 g/m²))" or the paper that you registered in advance.

■ Calibrating for Paper in Group C

1 Load the paper for calibration for group C into the paper drawer.

2 Press ⚙ → [Adjustment/Maintenance] → [Adjust Image Quality] → [Auto Adjust Gradation] → [Heavy 6].

3 Select the paper you loaded in step 1 for [Select Paper to Adjust].

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Selecting Paper for Calibration" in the e-Manual

4 Do automatic gradation calibration (full calibration).

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Full Adjustment" in the e-Manual

5 If the paper you want to print on is coated and you are using the imagePRESS Server, do steps 1 to 8 in the "Calibrations on the imagePRESS Server" in "Required Calibrations." (p. 17)

- Do calibration on the imagePRESS Server using "Futura Gloss Cover (100 lb. (271 g/m²))" or the paper that you registered in advance.

Calibrating for Paper in Group A and B

1 Load the paper for calibration for group A and B into different paper drawers.

2 Press ⚙ → [Adjustment/Maintenance] → [Adjust Image Quality] → [Auto Adjust Gradation] → [Thin 1/Plain/Heavy 1-4].

3 Select the paper you loaded for calibration for group A for [Select Paper to Adjust].

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Selecting Paper for Calibration" in the e-Manual

4 Do automatic gradation calibration (full calibration).

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Full Adjustment" in the e-Manual

5 Press [Heavy 5].

6 Select the paper you loaded for calibration for group B for [Select Paper to Adjust].

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Selecting Paper for Calibration" in the e-Manual

7 Do automatic gradation calibration (full calibration).

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Full Adjustment" in the e-Manual

8 If the paper you want to print on is coated and you are using the imagePRESS Server, do steps 1 to 8 in the "Calibrations on the imagePRESS Server" in "Required Calibrations." (p. 17)

- Do calibration on the imagePRESS Server using "OK Top Coat Plus (34 lb. (127.9 g/m^2))" or the paper that you registered in advance.

■ Calibrating for Paper in Group A and C

1 Load the paper for calibration for group A and C into different paper drawers.

2 Press ⚙ → [Adjustment/Maintenance] → [Adjust Image Quality] → [Auto Adjust Gradation] → [Thin 1/Plain/Heavy 1-4].

3 Select the paper you loaded for calibration for group A for [Select Paper to Adjust].

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Selecting Paper for Calibration" in the e-Manual

4 Do automatic gradation calibration (full calibration).

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Full Adjustment" in the e-Manual

5 Press [Heavy 6].

6 Select the paper you loaded for calibration for group C for [Select Paper to Adjust].

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Selecting Paper for Calibration" in the e-Manual

7 Do automatic gradation calibration (full calibration).

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Full Adjustment" in the e-Manual

8 If the paper you want to print on is coated and you are using the imagePRESS Server, do steps 1 to 8 in the "Calibrations on the imagePRESS Server" in "Required Calibrations." (p. 17)

- Do calibration on the imagePRESS Server using "Futura Gloss Cover (100 lb. (271 g/m^2))" or the paper that you registered in advance.

Calibrating for Paper in Group B and C

1 Load the paper for calibration for group B and C into different paper drawers.

2 Press → [Adjustment/Maintenance] → [Adjust Image Quality] → [Auto Adjust Gradation] → [Heavy 5].

3 Select the paper you loaded for calibration for group B for [Select Paper to Adjust].

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Selecting Paper for Calibration" in the e-Manual

4 Do automatic gradation calibration (full calibration).

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Full Adjustment" in the e-Manual

5 Press [Heavy 6].

6 Select the paper you loaded for calibration for group C for [Select Paper to Adjust].

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Selecting Paper for Calibration" in the e-Manual

7 Do automatic gradation calibration (full calibration).

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Full Adjustment" in the e-Manual

8 If the paper you want to print on is coated and you are using the imagePRESS Server, do steps 1 to 8 in the "Calibrations on the imagePRESS Server" in "Required Calibrations." (p. 17)

- Do calibration on the imagePRESS Server according to the basis weight of coated paper, using "OK Top Coat Plus (34 lb. (127.9 g/m^2))," "Futura Gloss Cover (100 lb. (271 g/m^2))," or the paper that you registered in advance.

■ Calibrating for Paper in Group A, B, and C

1 Load the paper for calibration for group A, B, and C into different paper drawers.

2 Press ⚙ → [Adjustment/Maintenance] → [Adjust Image Quality] → [Auto Adjust Gradation] → [Thin 1/Plain/Heavy 1-4].

3 Select the paper you loaded for calibration for group A for [Select Paper to Adjust].

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Selecting Paper for Calibration" in the e-Manual

4 Do automatic gradation calibration (full calibration).

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Full Adjustment" in the e-Manual

5 Press [Heavy 5].

6 Select the paper you loaded for calibration for group B for [Select Paper to Adjust].

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Selecting Paper for Calibration" in the e-Manual

7 Do automatic gradation calibration (full calibration).

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Full Adjustment" in the e-Manual

8 Press [Heavy 6].

9 Select the paper you loaded for calibration for group C for [Select Paper to Adjust].

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Selecting Paper for Calibration" in the e-Manual

10 Do automatic gradation calibration (full calibration).

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Full Adjustment" in the e-Manual

11 If the paper you want to print on is coated and you are using the imagePRESS Server, do steps 1 to 8 in the "Calibrations on the imagePRESS Server" in "Required Calibrations." (p. 17)

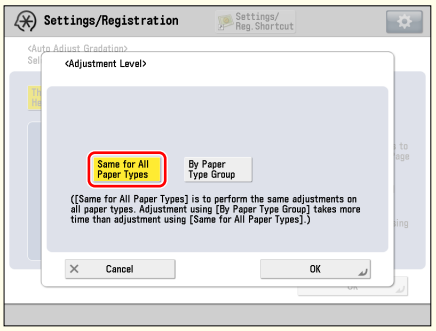
- Do calibration on the imagePRESS Server according to the basis weight of coated paper, using "OK Top Coat Plus (34 lb. (127.9 g/m^2))," "Futura Gloss Cover (100 lb. (271 g/m^2))," or the paper that you registered in advance.

Simple Calibration

If you want to correct the printed colors quickly and easily, this type of calibration is recommended. Do steps 1 to 3 in "Normal Calibration" once a day. (p. 32) This is, however, done on the premise that the environment (temperature and humidity) in which the machine is installed satisfies the recommended range. If the environment does not satisfy this range, do "Enhanced Calibration." (p. 4)

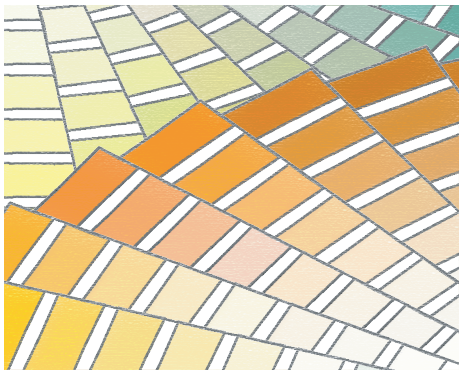
Prior to Starting Simple Calibration

See "Adjustment for Image Quality and Finishing (Calibration)" > "Adjust Image Quality" > "Automatic Gradation Adjustment" > "Changing Adjustment Level" in the e-Manual, and set [Adjustment Level] for automatic gradation adjustment to 'Same for All Paper Types'.



Getting the Best Colors from Your Machine

The density and tone of colors may change as you print large volumes of the same pages, even if you are printing the same image, slight variations in the shades of colors may become apparent. This is characteristic to this machine. You need to calibrate the colors periodically to compensate for the difference in colors.



NOTE

This section explains how to perform calibration using [Adjustment Level] with <Same for All Paper Types> for automatic gradation calibration. For more information on [Adjustment Level] for automatic gradation calibration, see "Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Changing Adjustment Level" in the e-Manual.

Calibration after Purchase

The machine must be calibrated after you install it on your site. Use the following procedure to do the calibration.

Step 1	Required Calibrations (Calibrations on the Machine) (p. 15)
▼	
Step 2	Required Calibrations (Calibrations on the imagePRESS Server) (p. 17)
▼	
Step 3	Calibrating for Paper You Want to Use for Printing (Calibrations on the Machine) (p. 21)
▼	
Step 4	Calibrating for Paper You Want to Use for Printing (Calibrations on the imagePRESS Server) (p. 24)

Calibration After the Machine Is in Operation

After the activation, you need to perform calibration with the following frequency.

Every Day	Normal Calibration (p. 32)
Every Few Weeks	Detailed Calibration (p. 33)

Calibration as Needed

If any of the following symptoms appear, perform calibration as needed.

Wrong Colors on Normal Paper	Detailed Calibration (p. 33)
Wrong Colors on Heavy or Coated Paper	Calibration to Print Colors Correctly on Heavy or Coated Paper (p. 35)

NOTE

The machine automatically corrects the color density every time it prints a certain number of pages to maintain stable gradations, densities, and shades of printed colors. When you print a large number of pages, you can increase the frequency of density corrections to minimize changes in colors.

"Adjustment for Image Quality and Finishing (Calibration)" > "Gradation Adjustment During Printing" in the e-Manual

Types of Paper You Can Use for Calibrating

You can use the following types of paper for calibration. If you want to use a different type of paper, you need to register the paper on the machine and the imagePRESS Server before performing a calibration. See "Calibrating for Paper You Want to Use for Printing" (p. 21) for the procedure.

For the European and Asia-Pacific Regions

Calibrating from the Machine

Canon Océ Top Colour Paper (100 g/m^2)

Calibrating from the imagePRESS Server

- Type of paper you want to print on is Plain (52-220 gm2):
  Canon Océ Top Colour Paper (100 g/m^2)
- Type of paper you want to print on is Thick (221-256 gm2):
  Canon Océ Top Colour Paper (250 g/m^2)
- Type of paper you want to print on is Heavy Thick (257-300 gm2):
  Canon Océ Top Colour Paper (300 g/m^2)
- Type of paper you want to print on is Coated (106-180 gm2):
  OK Top Coat Plus (127.9 g/m^2)
- Type of paper you want to print on is Heavy Coated (181-300 gm2):
  Futura Gloss Cover (271 g/m^2)

For the American Region

Calibrating from the Machine

Hammermill Color Copy Digital (28 lb. (105 g/m^2))

Calibrating from the imagePRESS Server

- Type of paper you want to print on is Plain (52-220 gm2):
  Hammermill Color Copy Digital (28 lb. (105 g/m^2))
- Type of paper you want to print on is Thick (221-256 gm2):
  Mohawk Options Navajo Smooth Brilliant White (90 lb. Cover (243 g/m^2))
- Type of paper you want to print on is Heavy Thick (257-300 gm2):
  Hammermill Color Copy Digital Cover (100 lb. (271 g/m^2))
- Type of paper you want to print on is Coated (106-180 gm2):
  OK Top Coat Plus (34 lb. (127.9 g/m^2))
- Type of paper you want to print on is Heavy Coated (181-300 gm2):
  Futura Gloss Cover (100 lb. (271 g/m^2))

* The names of the types of paper are subject to change. For more information, contact your local authorized Canon dealer.

Calibration after Purchase

Required Calibrations

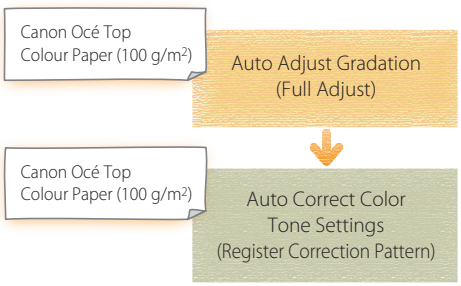
There are two types of calibration. One is on the machine, the other is on the imagePRESS Server. You need to perform both types of calibration.

Creating New Standard Values for Calibration

Standard values for calibration are already registered in the machine and the imagePRESS Server by default. If you notice a change in color, you can restore these default settings. Note that this value is a general value. However, you can create new standard values for your usage environment that allow you to calibrate the machine with greater accuracy.

Calibrations on the Machine

This section explains how to create new standard values for calibration.



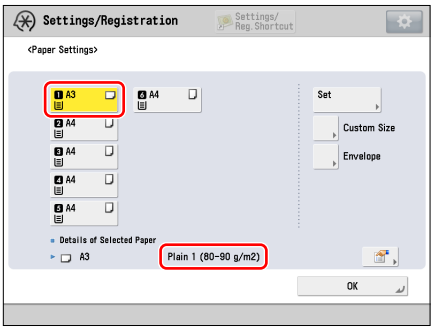
1 Load "Canon Océ Top Colour Paper (100 g/m²)"* into the paper drawer.

* "Canon Océ Top Colour Paper (100 g/m²)" is a type of paper for the European and Asia-Pacific regions. Use "Hammermill Color Copy Digital (28 lb. (105 g/m²))" for the American region. The former type of paper is used as an example throughout this guide when explaining how to operate the machine.

2 Make sure that the paper type in the paper drawer is "Plain 1 (80-90 g/m²)."

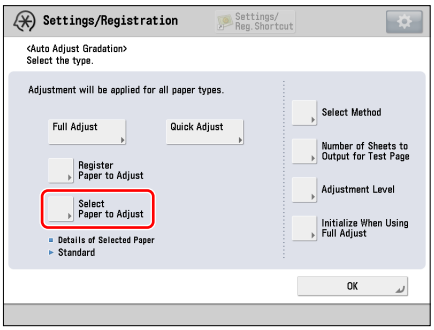
"Settings/Registration" > "Registering the Paper Size and Type for a Paper Source" in the e-Manual

- Press ⚙ → [Preferences] → [Paper Settings] → [Paper Settings] to check the paper type.



3 Select <Standard> in [Select Paper to Adjust].

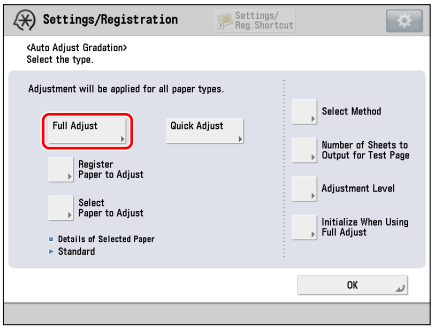
"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Selecting Paper for Calibration" in the e-Manual



4 Perform automatic gradation calibration (full calibration).

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Full Adjustment" in the e-Manual

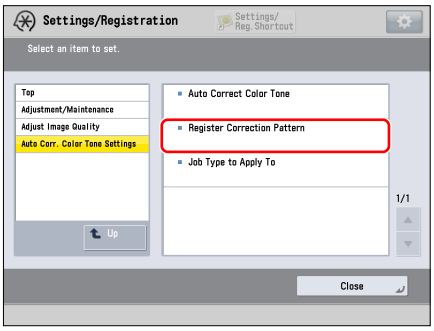
- Select the paper drawer where you have loaded "Canon Océ Top Colour Paper (100 g/m²)" as the paper source for test printing.



5 Create and register a new standard for automatic color tone correction.

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Color Tone Correction" > "Registering Correction Pattern" in the e-Manual

- Select "Plain 1 (80-90 g/m²)" for the paper type that you use for test printing.
- Select the paper drawer where you have loaded "Canon Océ Top Colour Paper (100 g/m²)" as the paper source for test printing.



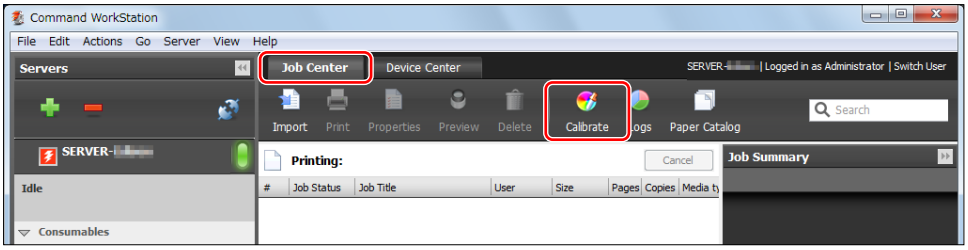
Calibrations on the imagePRESS Server

This section explains how to calibrate for "Canon Océ Top Colour Paper (100 g/m²)" by using a manual spectrophotometer (X-Rite i1 Pro). You need to connect the spectrophotometer to a machine on which Command WorkStation is installed. Note that doing these operations overwrites any calibration values that you have registered.

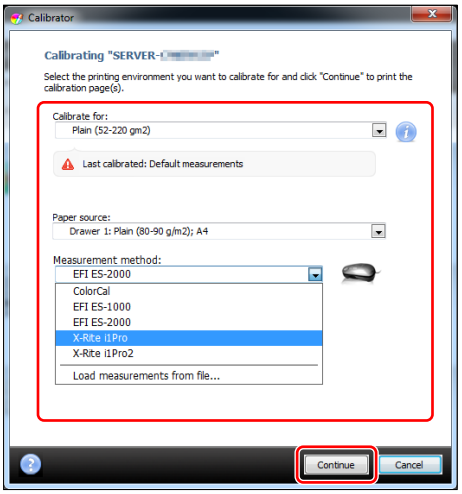
Canon Océ Top Colour Paper (100 g/m²)

Calibrations on the imagePRESS Server

1 Click [Job Center] → [Calibrate] in Command WorkStation.



2 Select each item as follows and click [Continue].



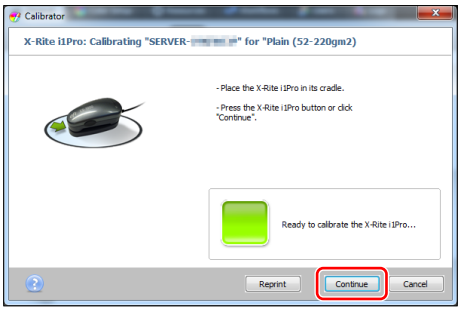
[Calibrate for:]
Select the paper you use for the calibration.
(Select "Plain (52-220 gm2)" here.)

[Paper source:]
Select the paper drawer where you have loaded the paper.
(Select the paper drawer where "Canon Océ Top Colour Paper (100 g/m²)" is loaded here.)

[Measurement method:]
Select the calibration method. (Select "X-Rite i1Pro" here.)

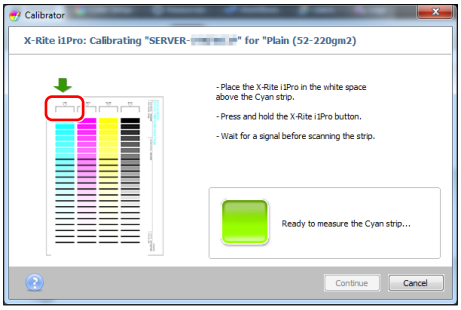
- A calibration page is printed.

3 Place the spectrophotometer, X-Rite i1 Pro, on the cradle and click [Continue].



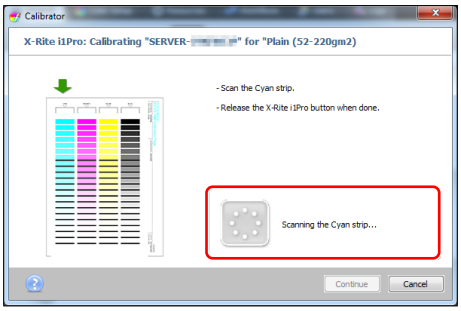
4 Place the sensor of the spectrophotometer on the calibration page.

- Place several sheets of blank paper on a flat surface and place the calibration paper on the top.
- Focus the sensor of the spectrophotometer on the white area indicated by the red frame in the image.



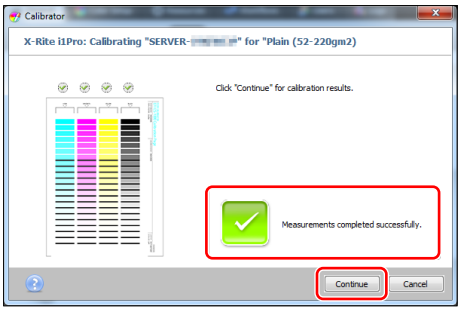
5 Hold the spectrophotometer button and scan the cyan strip.

- Hold the spectrophotometer button until you see <Scanning the Cyan strip...>. Keep holding the button and move the spectrophotometer from the top to the bottom to scan the cyan strip.
- Release the button after you have finished scanning.

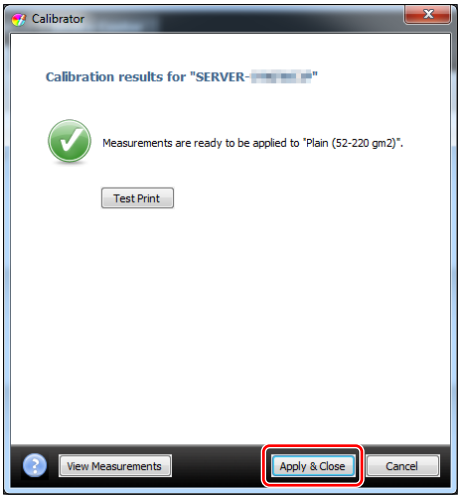


6 Scan the magenta, yellow, and black strips in the same way.

7 After <Measurements completed successfully.> appears, click [Continue].



8 Click [Apply & Close].



9 If necessary, calibrate for the following papers in the same way.

For the European and Asia-Pacific Regions

Canon Océ Top Colour Paper (250 g/m²)
Canon Océ Top Colour Paper (300 g/m²)
OK Top Coat Plus (127.9 g/m²)
Futura Gloss Cover (271 g/m²)

For the American Region

Mohawk Options Navajo Smooth Brilliant White (90 lb. Cover (243 g/m²))
Hammermill Color Copy Digital Cover (100 lb. (271 g/m²))
OK Top Coat Plus (34 lb. (127.9 g/m²))
Futura Gloss Cover (100 lb. (271 g/m²))

- In step 2, select one of the following types of paper for [Calibrate for:].

For the European and Asia-Pacific Regions

Canon Océ Top Colour Paper (100 g/m²): Plain (52-220 gm2)
Canon Océ Top Colour Paper (250 g/m²): Thick (221-256 gm2)
Canon Océ Top Colour Paper (300 g/m²): Heavy Thick (257-300 gm2)
OK Top Coat Plus (127.9 g/m²): Coated (106-180 gm2)
Futura Gloss Cover (271 g/m²): Heavy Coated (181-300 gm2)

For the American Region

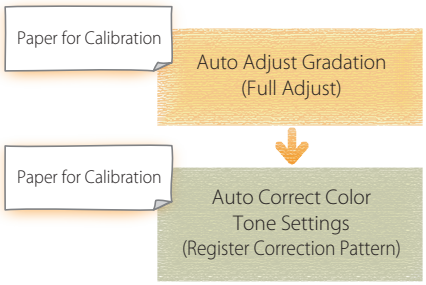
Hammermill Color Copy Digital (28 lb. (105 g/m²)): Plain (52-220 gm2)
Mohawk Options Navajo Smooth Brilliant White (90 lb. Cover (243 g/m²)): Thick (221-256 gm2)
Hammermill Color Copy Digital Cover (100 lb. (271 g/m²)): Heavy Thick (257-300 gm2)
OK Top Coat Plus (34 lb. (127.9 g/m²)): Coated (106-180 gm2)
Futura Gloss Cover (100 lb. (271 g/m²)): Heavy Coated (181-300 gm2)

■ Calibrating for Paper You Want to Use for Printing

You need to calibrate the machine for the paper you are actually using. Make sure you complete the procedure in "Calibrations on the Machine" (p. 15) in "Required Calibrations," even if you are not going to use "Canon Océ Top Colour Paper (100 g/m²)."

Calibrations on the Machine

This section explains how to create new standard values for calibration. You must use uncoated paper for the calibration even if you are using some type of paper other than uncoated paper for printing. If this is the case, use an uncoated paper that is as close as possible to the basis weight of the paper you are using for printing. For more information, see "Types of Paper You Can Use for Calibration" at the end of this document.



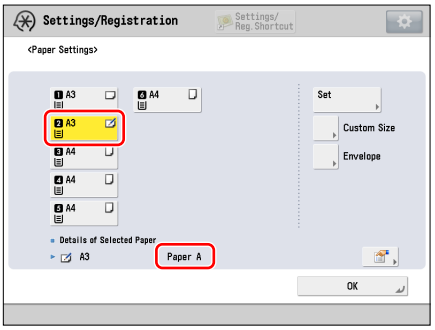
1 Load the paper you want to use for calibration.

- Make sure that "Canon Océ Top Colour Paper (100 g/m²)" is also loaded properly for use.

2 Change the paper type of the paper drawer to match the paper type loaded in step 1.

"Settings/Registration" > "Registering the Paper Size and Type for a Paper Source" in the e-Manual

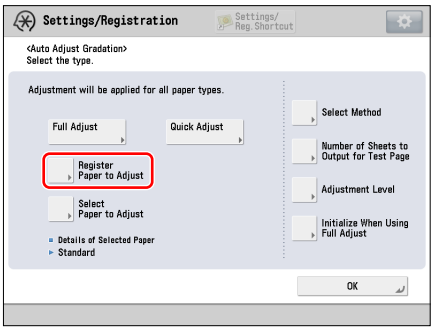
- Press ⓐ → [Preferences] → [Paper Settings] → [Paper Settings] to set the paper type.



3 Register the paper you want to use for calibration.

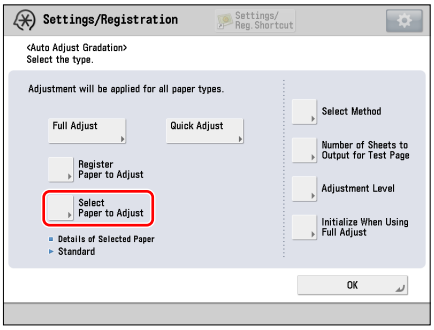
"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Registering Paper for Calibration" in the e-Manual

- Select <Standard> for the type for the paper to use as a basis.
- Select the paper drawer where you have loaded "Canon Océ Top Colour Paper (100 g/m^2)" as the paper source contains the type of paper to use as a basis.
- Select the paper drawer in which the paper you can use for calibration has been loaded as the paper source that is loaded with custom paper to be used as the paper type to adjust.



4 Select the paper you registered in step 3 for [Select Paper to Adjust].

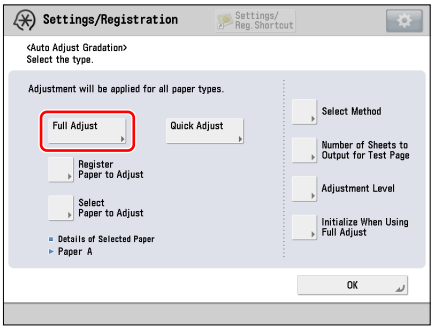
"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Selecting Paper for Calibration" in the e-Manual



5 Perform automatic gradation calibration (full calibration).

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Full Adjustment" in the e-Manual

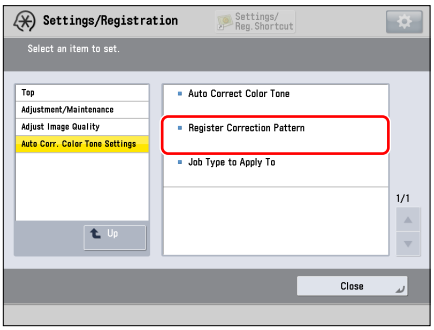
- Select the paper drawer in which the paper you can use for calibration has been loaded as the paper source for test printing.



6 Create and register a new standard for calibration for automatic color tone correction.

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Color Tone Correction" > "Registering Correction Pattern" in the e-Manual

- Select the type of paper you can use for calibration as the paper type that you use for test printing.
- Select the paper drawer in which the paper you can use for calibration has been loaded as the paper source for test printing.



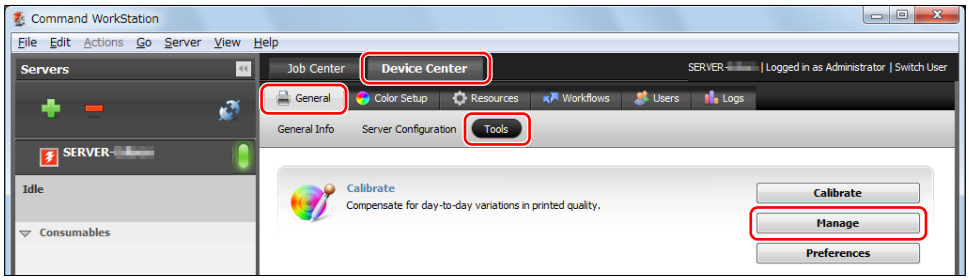
IMPORTANT

When standards for calibration are overwritten, the data is lost. Be careful not to overwrite the standard for calibration for "Canon Océ Top Colour Paper (100 g/m^2)" when you register a new standard of calibration for the paper you can use for calibration.

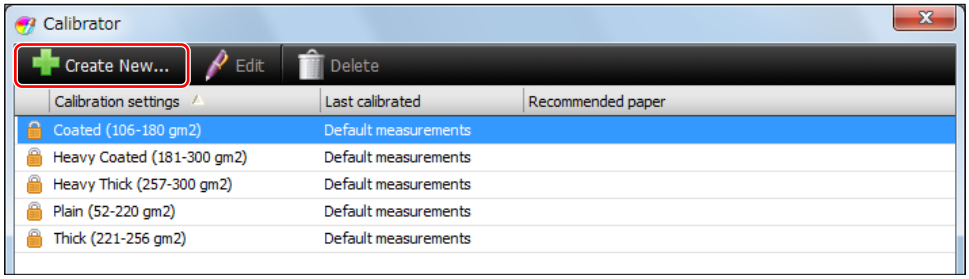
Calibrations on the imagePRESS Server

This section explains how to use a manual spectrophotometer (X-Rite i1 Pro) to calibrate the machine for the paper you want to print on. You need to connect the spectrophotometer to a machine on which Command WorkStation is installed.

1 Click the [Device Center] tab in Command WorkStation → [General] → [Tools] → [Manage] for <Calibrate>.

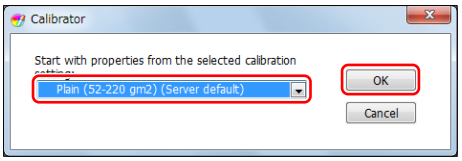


2 Click [Create New].



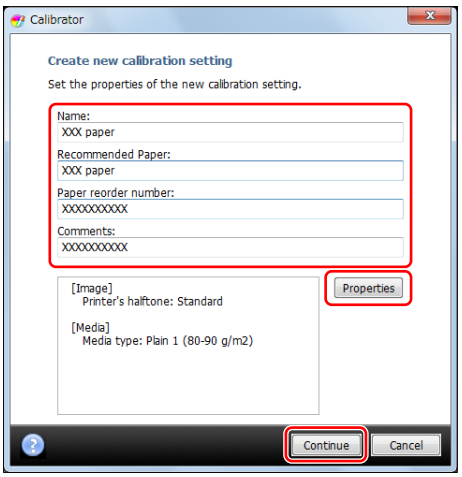
3 Select the paper type which is closest to the paper you want to print on, and click [OK].

- If there is no appropriate paper type, select <Server default>.



4 Enter the required information and click [Continue].

- It will be easier to find the calibration settings if you enter specific characteristics of the paper you are calibrating, such as gloss value, in addition to basis weight and paper type.
- You can check the print settings by clicking [Properties].

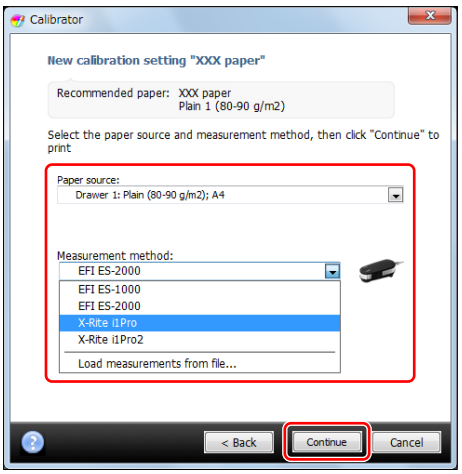


5 Select the items as described below and click [Continue].

[Paper source:]
Select the paper drawer in which the paper you want to print on is loaded.

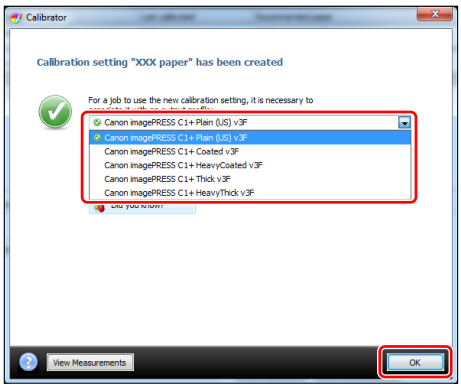
[Measurement method:]
Select the calibration method. (Select "X-Rite i1Pro" here.)

- A calibration page is printed.

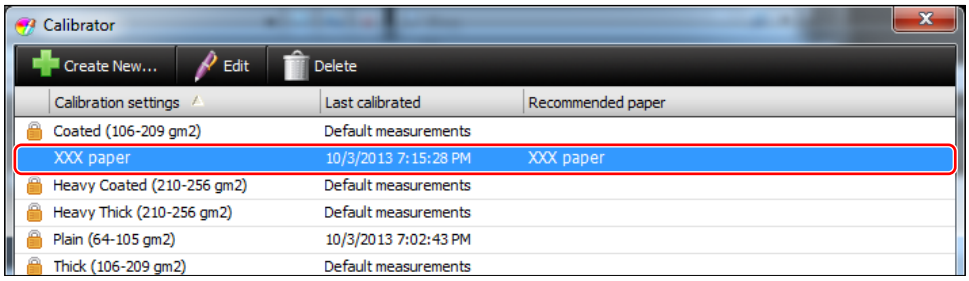


6 Follow steps 3 to 7 in "Calibrations on the imagePRESS Server" (p. 17) in "Required Calibrations."

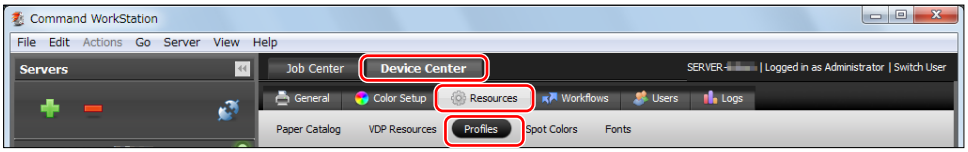
7 Link the calibration setting with the output profile and click [OK].



- The calibration setting for the paper you want to print on is added to the list.

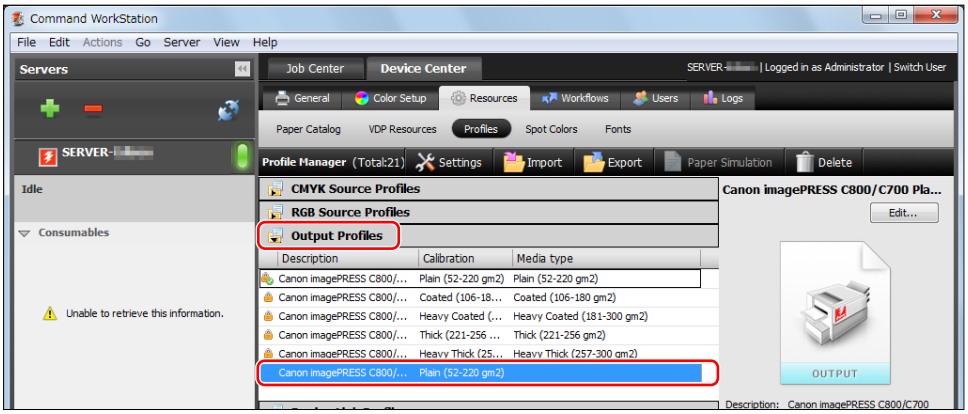


8 Click the [Device Center] tab in Command WorkStation → [Resources] → [Profiles].

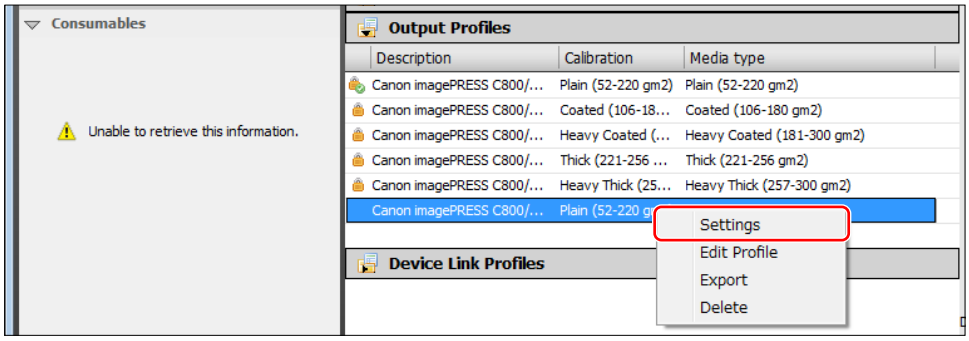


9 Click [Output Profiles] to display a list of profiles.

- An output profile with "Copy" appended to the name appears in the list as the output profile for the paper you want to print on.



10 Right-click the output profile for the paper you are using, and click [Settings].

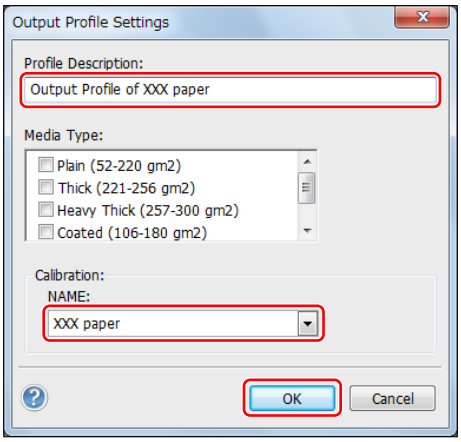


11 Select or enter the items as shown below, and click [OK].

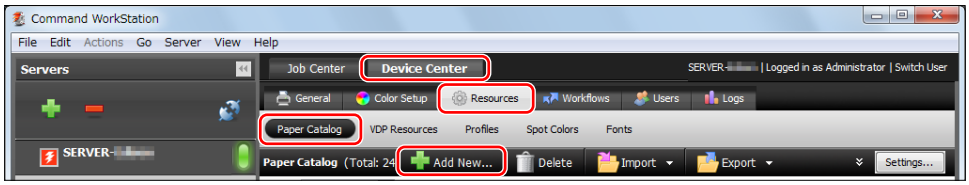
[Profile Description:]
Enter a simple description to distinguish this profile from other profiles.

[Media Type:]
Nothing needs to be selected.

[Calibration:]
Select the calibration setting you created in steps 1 to 7 for the paper you want to print on.

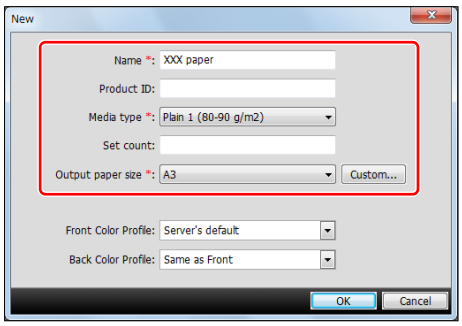


12 Click the [Device Center] tab in Command WorkStation → [Resources] → [Paper Catalog] → [Add New].

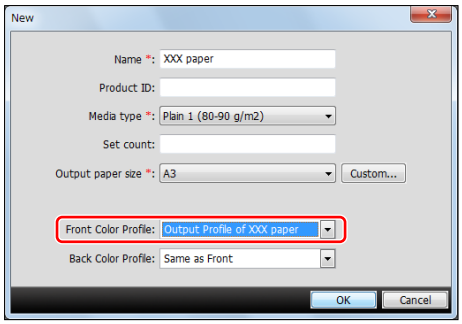


13 Register attributes of the paper you want to print on in the imagePRESS Server.

- Set a name, type or size of the paper.



- Select the output profile you set in step 11 in <Front Color Profile>.



NOTE

- If the front and back surfaces of the paper are different, you can select <Back Color Profile> and <Front Color Profile> separately.
- For detailed information on the setting items, see the user manual or the Help for the imagePRESS Server.

14 Click [OK].

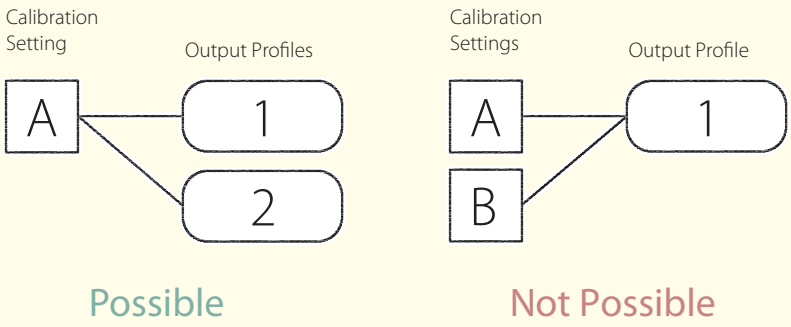
NOTE

See the following reference for information about how to use profile creation software to create output profiles.

"When Creating a Custom Output Profile, How Do I Do?" (p. 36)

Calibration Settings and Output Profiles

You need to link the output profile to the calibration settings to use them for the paper you want to print on. You can use a calibration setting with several output profiles, but each output profile must be linked with only a single calibration setting.



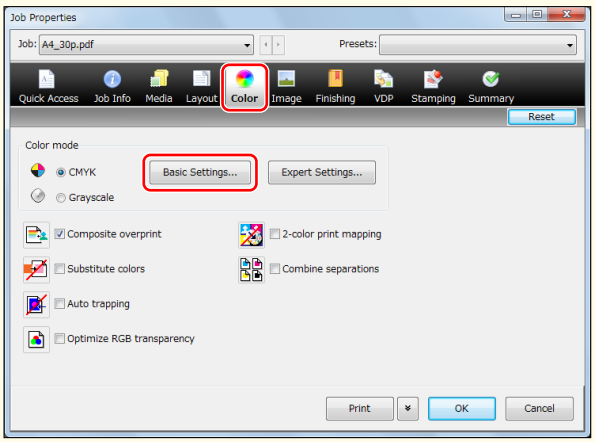
Setting Output Profiles to a Job

You can set output profiles to each job in the imagePRESS Server. Follow the procedure below to use an arbitrary profile temporarily.

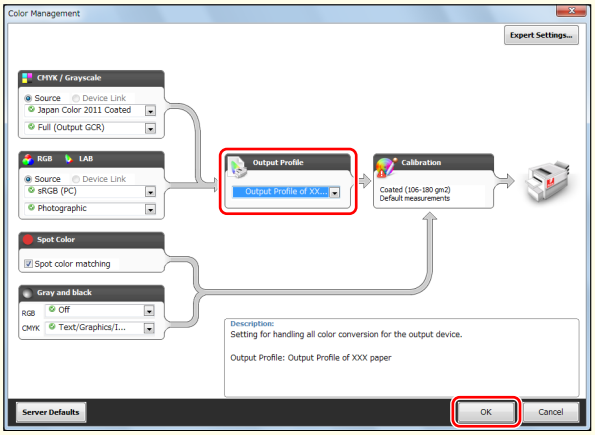
1 Double-click the job in Command WorkStation.

- [Job Properties] is displayed.

2 Select the [Color] tab, and then click [Basic Settings].



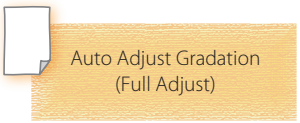
3 Select any profiles in [Output Profile] on the <Color Management> screen and click [OK].



Calibration After the Machine Is in Operation

Normal Calibration

Perform automatic gradation calibration (full calibration) once a day to output CMYK properly.

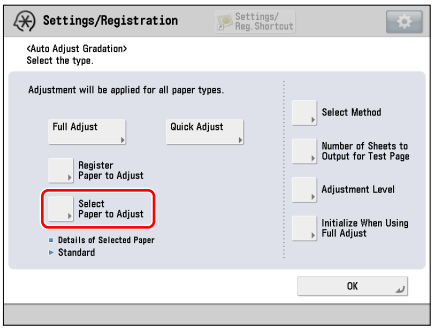


1 Load the paper into the paper drawer.

- Load "Canon Océ Top Colour Paper (100 g/m²)" or the paper you want to use for calibration which has been registered.

2 Select the paper type you loaded in step 1 for [Select Paper to Adjust].

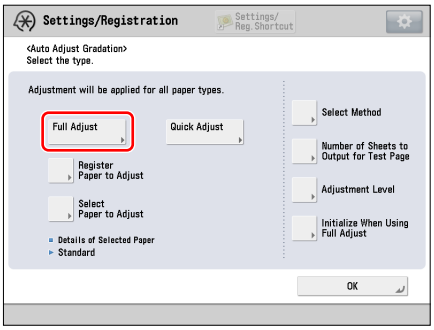
"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Selecting Paper for Calibration" in the e-Manual



3 Perform automatic gradation calibration (full calibration).

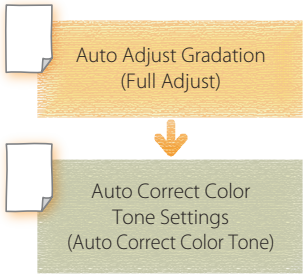
"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Full Adjustment" in the e-Manual

- Select the paper drawer where you loaded the paper in step 1 as the paper source for test printing.



Detailed Calibration

You need to perform automatic gradation calibration (full calibration) and automatic color tone correction every few weeks. The calibration is more accurate if you perform automatic gradation calibration first, and then perform automatic color tone correction. Try this procedure if you are not satisfied with the skin tone or gray scale that is being printed. Doing so may improve the shades of colors.

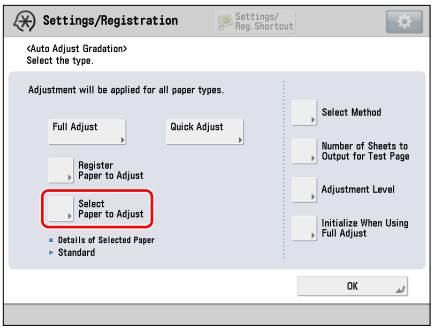


1 Load the paper into the paper drawer.

- Load "Canon Océ Top Colour Paper (100 g/m²)" or the paper you want to use for calibration which has been registered.

2 Select the paper type you loaded in step 1 for [Select Paper to Adjust].

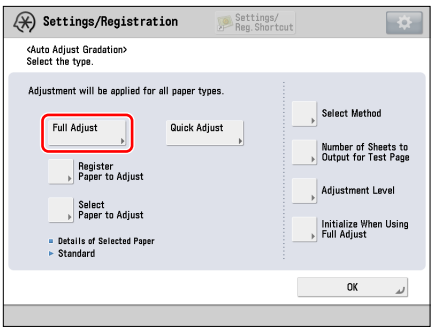
"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Selecting Paper for Calibration" in the e-Manual



3 Perform automatic gradation calibration (full calibration).

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" > "Full Adjustment" in the e-Manual

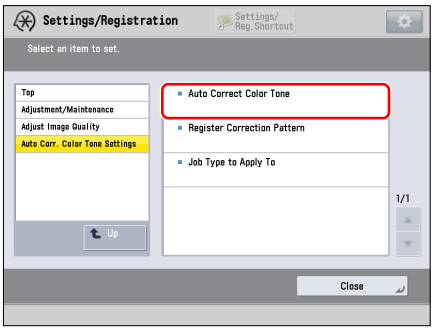
- Select the paper drawer where you loaded the paper in step 1 as the paper source for test printing.



4 Perform automatic color tone correction.

"Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Color Tone Correction" > "Automatic Color Tone Correction" in the e-Manual

- Press [Change Corr. Pattern], and select the calibration standard you created in "Calibration after Purchase." (p. 15)
- Select the paper drawer where you loaded the paper in step 1 as the paper source for the paper for which you are calibrating the machine.



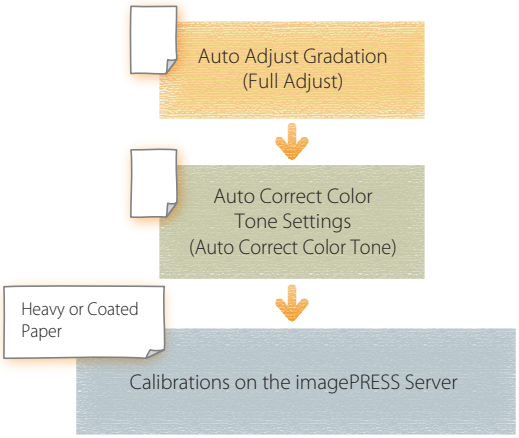
Calibration As Needed

Wrong Colors on Normal Paper

See "Detailed Calibration." (p. 33)

Wrong Colors on Heavy or Coated Paper

If the wrong flesh tone or incorrect gray scale appears on heavy or coated paper, perform automatic gradation calibration (full calibration) and automatic color tone correction on the machine, and then perform calibration for heavy paper or coated paper on the imagePRESS Server. Doing so may improve the shades of colors.



1 Load the paper into the paper drawer.

- To do calibrations on the machine, load "Canon Océ Top Colour Paper (100 g/m^2)" or the paper you want to use for calibration which has been registered.
- To do calibrations on the imagePRESS Server, load heavy or coated paper that you have registered as a paper you want to use for calibration.

2 Perform calibration on the machine.

- Follow steps 2 to 4 in "Detailed Calibration." (p. 33)

3 Perform calibration on the imagePRESS Server.

- Follow steps 1 to 8 in "Calibrations on the imagePRESS Server" in "Required Calibrations." (p. 17)

When Creating a Custom Output Profile, How Do I Do?

If you create a custom output profile using profile creation software, you need to output the chart for color measurement from the imagePRESS Server. Specify the job properties for the outputting chart in the Command WorkStation as follows.

IMPORTANT

Make sure to do the following procedure. If the job properties are not specified properly, the chart for color measurement may not be output correctly.

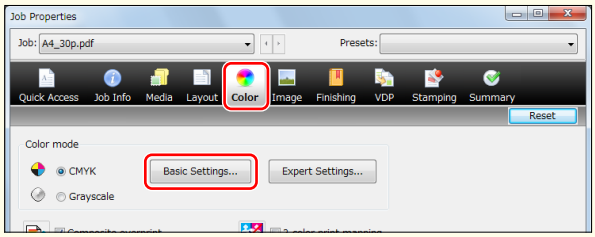
NOTE

For information on how to create a custom output profile, see the user manual or the Help for the profile creation software you are using.

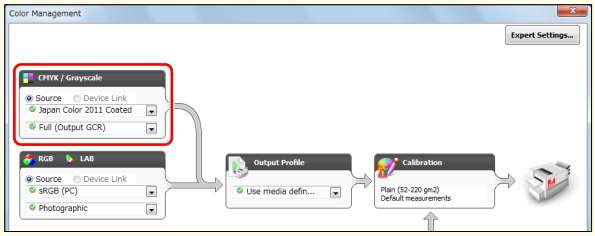
1 Double-click the job for which you want to output a chart.

- [Job Properties] is displayed.

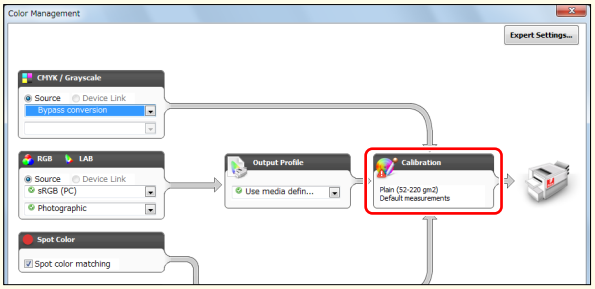
2 Select the [Color] tab, and then click [Basic Settings].



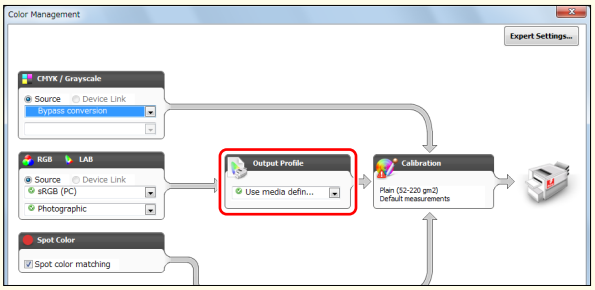
3 Select [Bypass conversion] in [CMYK/Grayscale] on the <Color Management> screen.



4 Confirm that the appropriate calibration setting is displayed in [Calibration].



- If you want to change a calibration setting, select the output profile, which is linked with your desired calibration setting, in [Output Profile].

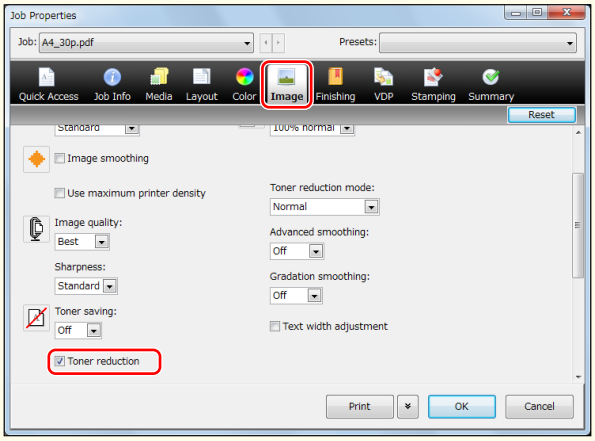


NOTE

If you select [Bypass conversion] in [CMYK/Grayscale], the output profile is not used. Only a calibration setting linked with the selected output profile is applied.

5 Click [OK].

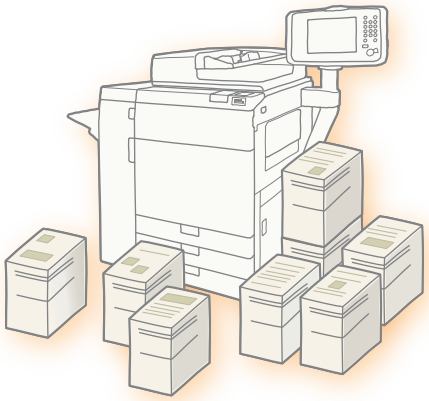
6 Select the [Image] tab on the <Job Properties> screen, clear the check box for [Toner reduction].



7 Click [OK].

Improving Productivity

This section provides information you can use to do jobs quickly and smoothly. You can improve productivity and speed up your work just by learning the pointers and techniques we introduce here.



- Choosing Paper Wisely (p. 39)
- Speeding Up a Print Job by Using Thin Paper First (p. 40)
- Replacing a Toner Cartridge without Stopping the Print Job (p. 41)
- Increasing a Paper Loading Capacity by Giving Priority to the Lower Tray (p. 42)
- Using Auto Drawer Switching to Its Fullest (p. 42)
- Increasing Print Speed by Giving Priority to Either Thin Paper or Heavy Paper (p. 46)
- Speeding Up a Print Job Manually When Printing on Heavy 5/Heavy 6 Paper (p. 48)
- Speeding Up a Print Job by Giving Priority to Productivity Rather Than Gloss (p. 48)

Choosing Paper Wisely

Print speed changes depending on the type of paper and the basis weight. You can improve productivity by choosing a paper consciously to meet your needs. First of all, see the following table.

Relationship between Types of Paper and Print Speed

Basis Weight	Types of Paper That Have Been Registered in the Machine (Standard Paper)	Print Speed
52 g/m^2 to 220 g/m^2 (14 lb bond to 80 lb cover)	Thin 1 or 2, Plain 1 or 2, Heavy 1 to 4	-
221 g/m^2 to 256 g/m^2 (82 lb cover to 140 lb index)	Heavy 5	2/3 as fast
257 g/m^2 to 300 g/m^2 (140 lb index to 110 lb cover)	Heavy 6	1/2 as fast

For example, if you use a paper type whose basis weight is 221 g/m^2, Heavy 5 is a normal choice for the type of paper. In this case, the print speed slows down to two thirds of the print speed of Heavy 4, whose basis weight is 220 g/m^2. In this way only 1 g/m^2 of the basis weight creates about 1.5 times difference in the print speed. You can improve productivity by using a paper type whose basis weight is 220 g/m^2, not 221 g/m^2.

NOTE

- Only thin, plain, and heavy papers are selected from the standard types of paper and listed in the table above.
- Print speed changes not just according to the basis weight, by the type of paper as well. For the relationship between standard paper and print speed, see "Types of Paper You Can Use for Calibration" at the end of this document. (If you use group A as the base, the print speeds of group B and group C are two thirds as fast and one half as fast respectively.)
- The print speed may differ from those in the table depending on the amount of images and the room temperature.

Speeding Up a Print Job by Using Thin Paper First

The temperature of the fixing unit in the machine is adjusted as necessary according to the type of paper and the basis weight. Generally, the temperature of the fixing unit is set to lower when paper with a small basis weight, such as thin paper, is loaded. It takes more time for the temperature of the fixing unit to fall than to increase. You can use the characteristics of the fixing unit to increase productivity. For example you can reduce the time required for the fixing unit temperature to adjust by printing on the thin paper first if you need to print on thin paper and heavy paper consecutively.

Order of Paper Used	Fixing Unit Temperature	Waiting Time
Thin paper → Thin paper Heavy paper → Heavy paper	No temperature adjustment	None
Thin paper → Heavy paper	Increase the temperature	Short
Heavy paper → Thin paper	Lower the temperature	Long

NOTE

- The waiting time may be different from those in the table because the time required for the fixing unit to adjust the temperature changes depending on the type of paper and the basis weight as well as the room temperature.
- You can increase print speed by controlling the fixing unit for temperature adjustment. For more information, see "Increasing Print Speed by Giving Priority to Either Thin Paper or Heavy Paper." (p. 46)

Replacing a Toner Cartridge without Stopping the Print Job

When the remaining toner is low, the machine displays an error message on the touch panel display. If toner remains in the machine, it continues to print jobs even after the cartridge is empty, but it stops printing after toner in the machine is totally empty. Productivity falls overall, because the print job stops until the toner cartridge is replaced. You can maintain productivity by replacing the toner cartridge when there is still toner in the machine without stopping the print job. You can safely replace toner cartridges while printing.

Error Message*	Remaining Toner	Print Job	Toner Cartridge Replacement
Replace toner cartridge. (Black)	The toner cartridge is empty, but a little toner is left in the machine.	The machine continues to print jobs while toner is still left.	You can replace the toner cartridge while printing.
Replace toner. (Black)	The toner cartridge is empty and there is no toner remaining in the machine.	Print job is automatically stopped.	The machine restarts the print job after you replace the toner cartridge.

* The messages are for black toner. You will see a different color in the message for cyan, magenta and yellow toners.

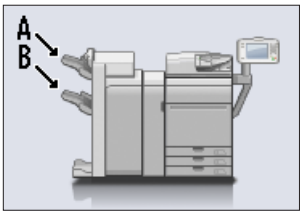
NOTE

- See the following information on replacing toner cartridges.
  "Maintenance" > "Replacing the Toner Cartridge" in the e-Manual
- You can always check the toner level on [Status Monitor/Cancel]. See the following for more information.
  "Status Monitor /Cancel" > "Checking the Status of Consumables and Other Information" in the e-Manual

Increasing a Paper Loading Capacity by Giving Priority to the Lower Tray

The finisher has a two-tiered paper tray, and the lower tray can stack many more printouts than the upper tray. If you designate the lower tray for large volumes of printing, productivity improves because you do not need to remove the printed paper as often.

Finisher-AM1



Paper loading capacity of tray B is larger than that of tray A. For more information on specifying the output tray, see the following.

"Settings/Registration" > "Output Tray Designation" in the e-Manual

High Volume Stack Mode

If you set the High Volume Stack Mode to 'On', the tray order to which printouts are output is fixed. For example, when you print a job to tray A and B on the Finisher-AM1 with the High Volume Stack Mode 'On', the printouts are stacked on the tray B first, and after the tray B reaches its capacity, the printed paper is stacked on tray A. You can improve productivity by setting the High Volume Stack Mode to 'On' and using tray B first. For more information on the High Volume Stack Mode, see the following.

"Settings/Registration" > "High Volume Stack Mode" in the e-Manual

Using Auto Drawer Switching to Its Fullest

Auto Drawer Switching is a function that automatically feeds paper from a different paper drawer when the specified paper drawer runs out of paper. You can prevent the machine from running out of paper by using this function. This section explains how to use Auto Drawer Switching for large print job that is printed from a computer as an example.

IMPORTANT

When you refill the paper drawer, be careful not to open the paper drawer that the machine is currently using. Doing so may cause a paper jam.

Example: To print 10,000 pages in a row using Plain 1 (80 g/m^2) using the Multi-drawer Paper Deck-B1

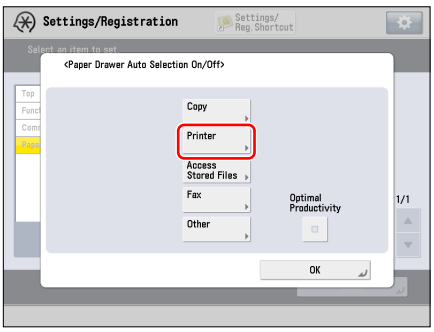
The Multi-drawer Paper Deck-B1 has three paper sources, the upper, middle, and lower drawers, and each can stack up to 2,000 sheets of paper (80 g/m^2). With Auto Drawer Switching, you can load paper into the drawers as the paper runs out, without stopping printing. If you keep refilling the paper drawers so they do not run out, you can print 10,000 sheets continuously by refilling the upper and middle paper drawers. The paper source changes four times during this cycle.

■ Specifying the Settings on the Machine

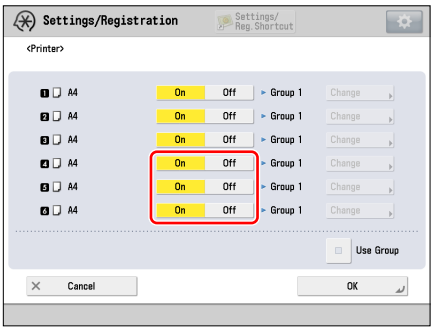
After you load 2,000 sheets of paper into each of the upper, middle, and lower drawers on the Multi-drawer Paper Deck-B1, specify the following settings.

1 Press ◎ → [Function Settings] → [Common] → [Paper Feed Settings] → [Paper Drawer Auto Selection On/Off].

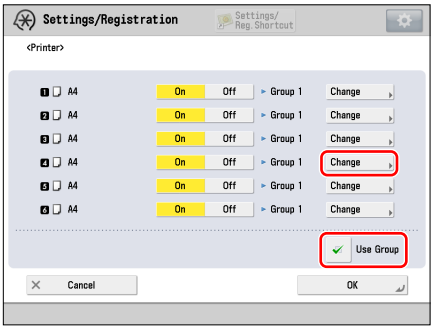
2 Select [Printer].



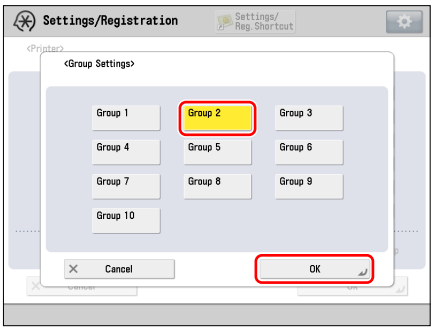
3 Select [On] for paper sources **4**, **5**, and **6**.



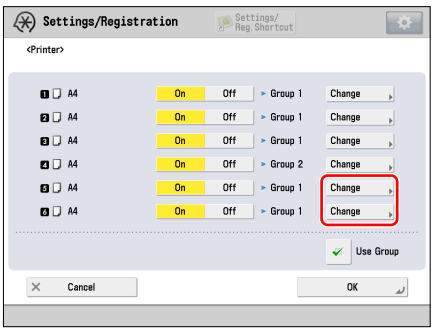
4 Select [Use Group] → press [Change] for paper source **4**.



5 Select [Group 2] → press [OK].

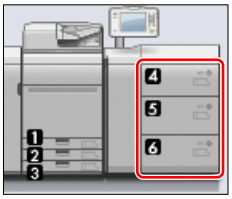


6 In the same way that you change the setting for paper source 4, change [Group 1] to [Group 2] for paper sources 5 and 6.



NOTE

Paper sources 4, 5 and 6 are equivalent to the upper, middle, lower drawers of the Multi-drawer Paper Deck-B1.



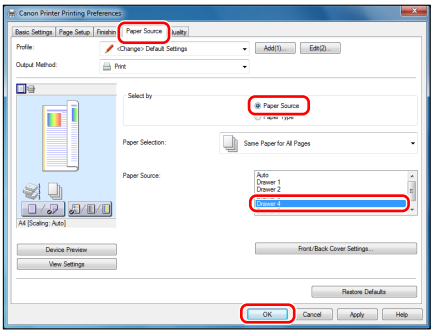
■ Specifying the Settings on the Printer Driver

1 On <Devices and Printers>, right-click the machine icon → select [Printing preferences].

2 Select the <Paper Source> tab and specify the settings as described below → click [OK].

[Select by]
Select [Paper Source].

[Paper Source:]
Select [Drawer 4].



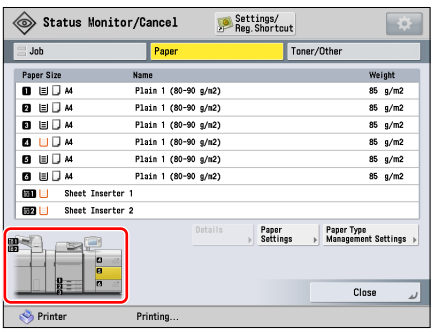
■ Starting a Print Job

As the machine starts printing, paper is fed from the upper drawer of the Multi-drawer Paper Deck-B1. After the paper source changes, follow the procedure below.

1 Press [◈] → select the [Paper] tab.

2 Make sure the paper source has changed to the middle drawer.

- The paper source in use is highlighted in yellow on the image which is in the lower left corner of the screen.



3 Load paper into the upper drawer of the Multi-drawer Paper Deck-B1.

4 In the same way, load paper into the middle drawer of the Multi-drawer Paper Deck-B1.

- When the paper in the middle drawer runs out, the paper source changes to the lower drawer. Load paper into the middle drawer in the same way.

NOTE

- You do not need to stop a print job when you refill paper.
- After you complete a print job, make sure to restore the setting on both the machine and the printer driver to prevent the setting being applied to the next print job.
- You can use Auto Drawer Switching for various purposes besides those mentioned in this section. For more information, see the following.

"Settings/Registration" > "Enabling Paper Drawer Auto Selection" in the e-Manual

Increasing Print Speed by Giving Priority to Either Thin Paper or Heavy Paper

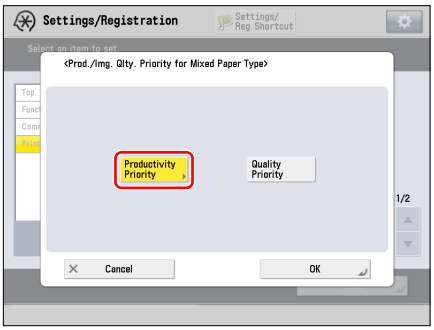
The temperature of the fixing unit in the machine is adjusted constantly according to the type of paper and the paper's basis weight. As a result, when you switch the type of paper for a job, the machine needs to adjust the temperature according to the paper and you may need to wait for the temperature to change. For this reason, we provide a way to improve the overall productivity by roughly specifying priority for either heavy paper or thin paper.

Example: To print on both Thin 1 (64 g/m^2) and Plain 1 (80 g/m^2) for a job

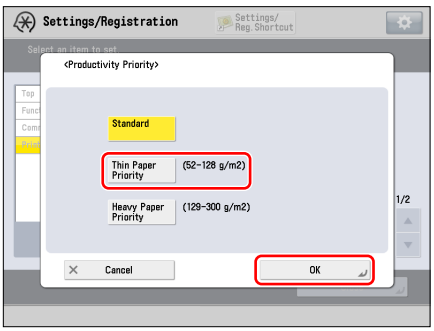
Technically, the temperature of the fixing unit for Thin 1 (64 g/m^2) and Plain 1 (80 g/m^2) paper is different. If you set [Thin Paper Priority] in the following procedure, you can reduce the waiting time and improve productivity because the temperature of the fixing unit is optimized for paper with a small basis weight (less than 128 g/m^2).

1 Press ⚙ → [Function Settings] → [Common] → [Print Settings] → [Prod./Img. Qlty. Priority for Mixed Ppr. Type].

2 Press [Productivity Priority].



3 Select [Thin Paper Priority] → press [OK] → [OK].



4 Start Printing.

NOTE

- If you set [Productivity Priority] for this setting, uneven gloss may occur or toner may not be properly applied to the image, under the certain conditions.
- If you select [Thin Paper Priority] and then print on paper with a basis weight greater than 129 g/m^2 (40 lb bond), the time you wait while temperature adjusts may increase.
- Besides the above mentioned settings, you can improve productivity by giving priority to heavy paper with a basis weight over than 129 g/m^2 (40 lb bond), or you can give priority to image quality by optimizing the temperature for all types of paper. For more information, see the following.

"Settings/Registration" > "Productivity/Image Quality Priority for Mixed Paper Type" in the e-Manual

Speeding Up a Print Job Manually When Printing on Heavy 5/Heavy 6 Paper

The print speed changes depending on the type of paper and the paper's basis weight. When you use paper with a high basis weight, the machine prints images at slower speeds so that paper feeds smoothly and the toner is applied to the paper properly. If you set [Heavy 5/Heavy 6 Paper Productivity Priority] to 'On', you can force the print speed to increase. For more information, see the following.

"Settings/Registration" > "Heavy 5/Heavy 6 Paper Productivity Priority" in the e-Manual

NOTE

When [Heavy 5/Heavy 6 Paper Productivity Priority] is set to 'On', print speed increases, but color/gloss/fixing quality may be adversely affected.

Speeding Up a Print Job by Giving Priority to Productivity Rather Than Gloss

The print speed changes depending on the type of paper and the paper's basis weight. When you use coated paper, the machine prints images more slowly to preserve the gloss of the image. If you specify [Productivity Priority] in [Coated Paper Productivity/Gloss Priority], you can force the machine to print faster. For more information, see the following.

"Settings/Registration" > "Coated Paper Productivity/Gloss Priority" in the e-Manual

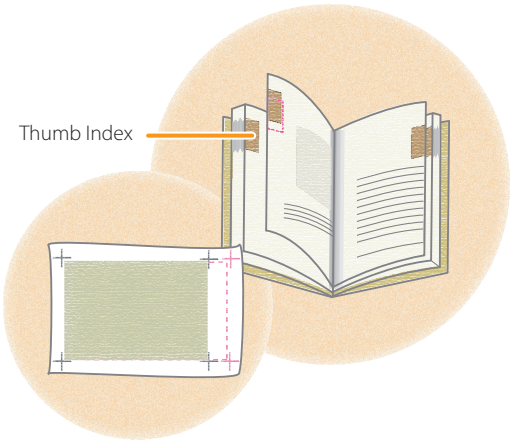
NOTE

If you specify these settings, the print speed increases but the gloss quality may be adversely affected.

How to Fix Misalignment of Images

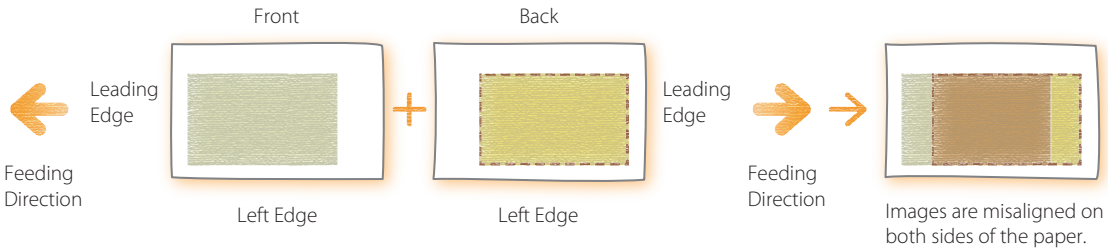
If the following troubles often occur, the machine may have alignment problems. Follow the procedures described in this section to solve such problems.

- The register marks on one side of a printed sheet do not match those on the other side.
- The thumb indexes on the printed pages are not aligned.
- The image is not printed within the register marks.



NOTE

- You may not be able to correct misalignment that is less than 1.0 mm (1/25").
- The machine decides the printing start position based on the leading edge of the paper. After the front side of the paper is printed, the paper is reversed and the back side of the paper is printed from the trailing edge. Because of this, the position where printing starts may be slightly different on opposite sides of the paper.



Step 1 Eliminating the Basic Causes of Misalignment (p. 50)

Step 2 Changing Settings on the Machine According to Paper Characteristics (p. 53)

Step 3 Changing Print Settings on the Printer Driver (p. 56)

Step 1 Eliminating the Basic Causes of Misalignment

Find the answers to your questions about how to solve your problems.

Q. Is the machine or paper located in a high humidity environment?

A. Paper tends to expand when it absorbs moisture from a highly humid environment. If this happens, the images may be printed in the wrong position. For example, the image may be printed in the lower left corner, rather than in the center as expected. Or, images printed on the front and back of the paper may be misaligned.

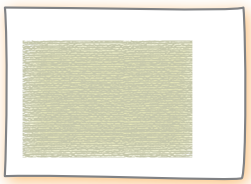


Image is printed near the edge of the paper because the paper is larger than the set paper size.

Solution

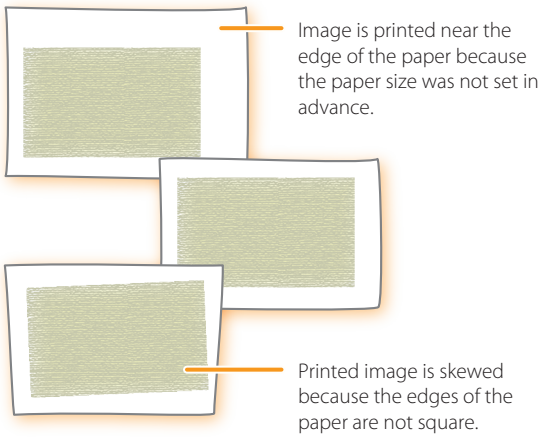
- Keep the machine and paper in a room with a steady temperature and humidity. If the temperature and humidity are unstable, it may cause the paper to expand or shrink, resulting in misalignment of printed images.
- For appropriate temperature and humidity, see the *Installation and Operating Environment Guidelines* or the *Specialty Media Handling Guide*.
- Before you load paper, place the package of paper near the machine so it can fully acclimatize to the temperature and humidity.
- Unwrap the paper immediately before you load the paper into the machine.

Q. Is the paper cut correctly?

A. If the paper is not uniform in size and shape, the margins around the image may be different on each page. If the paper is not cut square, the images may be skewed when they are printed.

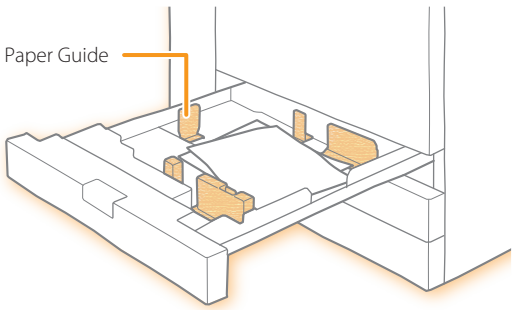
Solution

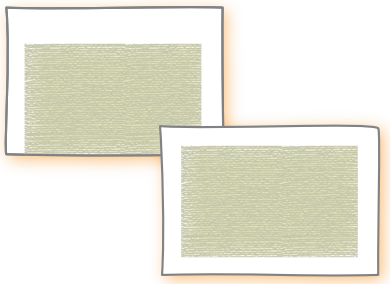
- Use a different batch of paper that has been cut correctly.
- If you cut the paper yourself, measure it and confirm it is the correct size.



Q. Did you load paper in the correct position?

A. If you place the paper guide in the wrong position or do not align the edges of the paper before you load it, the printed images may be misaligned on every page.





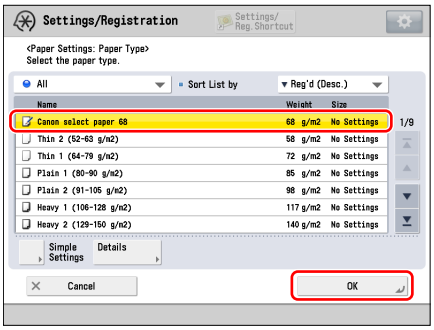
Position in which image is printed is misaligned because the paper guide is in the wrong position.

Solution

- Align the edges of the paper and load it again.
- Make sure that the paper guide is placed in the correct position.

Q. Did you register the paper type correctly?

A. If you load a different brand of paper, different from the one you have used before, you need to change the settings for the paper in the machine. If you start printing without changing the settings, the machine applies the previous settings to the new paper type, which causes misalignment of the images on every page.



Solution

Press ⚙ → [Preferences] → [Paper Settings] → [Paper Settings] → select the brand of paper that you have loaded.

"Settings/Registration" > "Registering the Paper Size and Type for a Paper Source" in the e-Manual

Q. Have the machine got warmed up enough to obtain proper printing results?

A. If you start printing before the machine gets warmed up enough, such as just after turned ON, the printed images may be misaligned.

Solution

Before you start a print job, warm up the machine by printing 10 to 30 copies of a test page.

Step 2 Changing Settings on the Machine According to Paper Characteristics

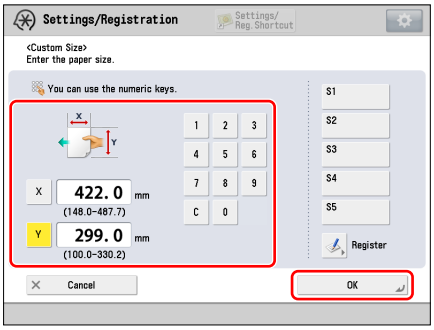
If you still have the same problem after you follow the procedures of "Eliminating the Basic Causes of Misalignment" in step 1, change the settings to meet paper characteristics.

Registering the Measured Value of the Paper

If you want to print the image within a specified area, you need to register the correct paper size in advance. Measure the paper size and register the value.

Press ⓐ → [Preferences] → [Paper Settings] → [Paper Type Management Settings] → select the brand of paper in which the image is misaligned → press [Details/Edit] → [Change] for <Size> → [Custom Size] → enter the measured value.

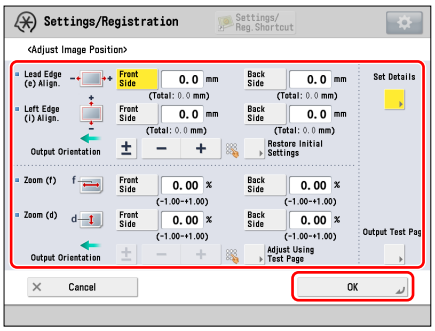
"Paper Type Management" > "Changing the Size" in the e-Manual



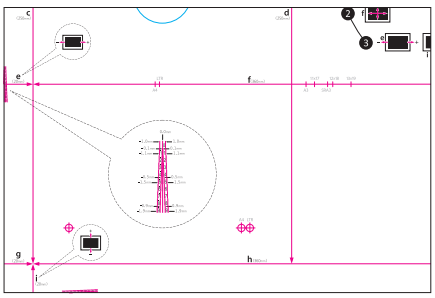
Adjusting the Position of the Image

You can adjust the position in which the image is actually printed.

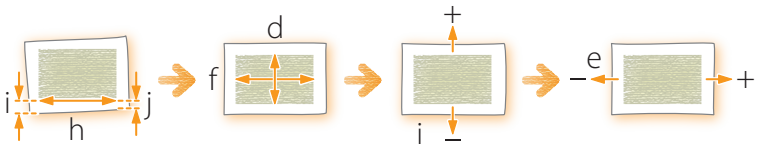
1 Press ⓐ → [Preferences] → [Paper Settings] → [Paper Type Management Settings] → select the brand of paper in which the image is misaligned → press [Details/Edit] → [Change] for <Adjust Image Position>.



2 Print a test page.



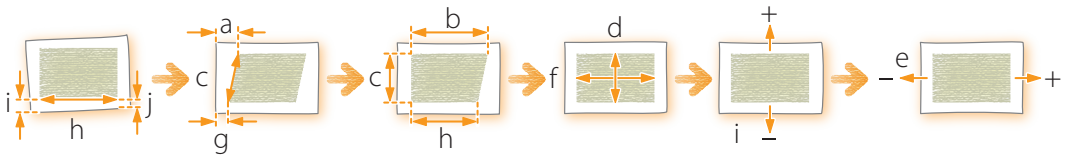
3 Adjust the position of the image in the sequence shown below.



Correct Image Skew | Adjust Zoom Ratio | Adjust Position of Left Edge Register | Adjust Position of Leading Edge Register

4 Print another test page and hold it up to a light to see if the ⊕ (register marks) are in the same position on both sides of the paper.

5 If the ⊕ (register marks) are not aligned, adjust the position of the image again in the sequence shown below.



Correct Image Skew | Correct Parallelogram Distortion | Correct Trapezoid Distortion | Adjust Zoom Ratio | Adjust Position of Left Edge Register | Adjust Position of Leading Edge Register

NOTE

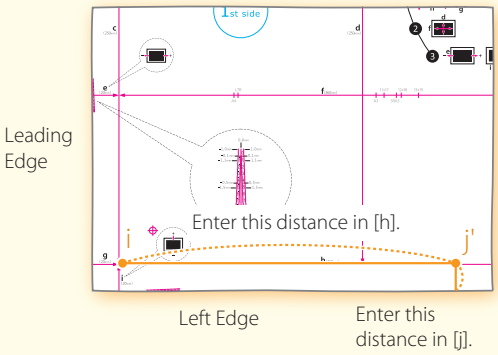
- Print about ten copies of the test page, and then measure the final page that is printed. This is done to improve accuracy, because the position of the images that are printed first is inconsistent. If the humidity is high, print about 30 copies of the test page and measure the final page.
- If you are adjusting the position of the image on coated paper or heavy paper that is more than 250 g/m^2 (66 lb bond), print three to five test pages and use the average value. This is done because the position of the image on heavy or coated paper is inconsistent.
- Use the marks for each paper size when checking for misalignment of images. For example, if the test page is A3, use the ⊕ A3 register mark to check for misalignment.
- If you change the value in [Adj. Secondary Transfer Volt.], be sure to adjust the zoom ratio of the image.

"Paper Type Management" > "Adjusting the Image Position" in the e-Manual

How to Correct Skew and Parallelogram/Trapezoid Distortion on a Small Test Page

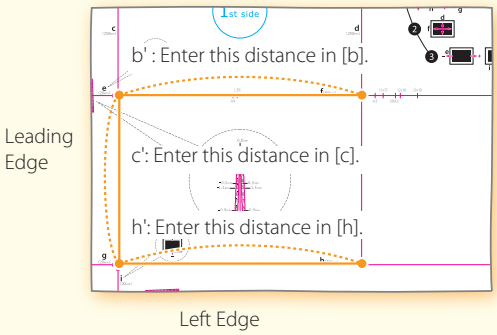
Skew Correction

If the test page is so small that <j> is not on the page, add an arbitrary mark <j'> anywhere on the red line <h>. Then, enter the distance from <j'> to the left edge of the paper in [j]. Enter the distance from <i> to <j'> in [h].



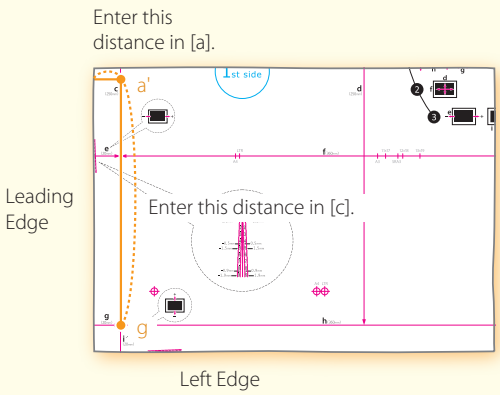
Trapezoid Distortion Correction

If the test page is so small that the distances b and h cannot be measured, add <c'>, <b'> and <h'> as shown in the illustration on the right. Enter these distances in [c], [b] and [h] respectively.



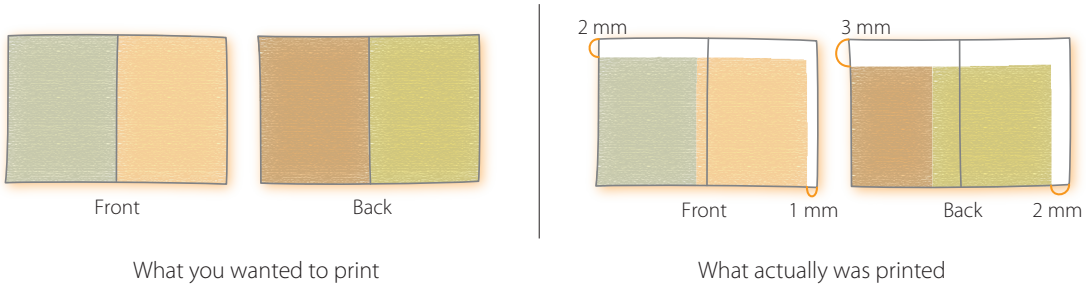
Parallelogram Distortion Correction

If the test page is so small that <a> is not on the page, add an arbitrary mark <a'> on the red line <c>. Enter the distance from <a'> to the leading edge of the paper in [a]. Enter the distance from <g> to <a'> in [c].



Step 3 Changing Print Settings on the Printer Driver

If you still have misalignment problems after you follow the procedures in steps 1 and 2, you can adjust the image position by changing the print job settings on the printer driver. The procedure below is for imagePRESS Server. For example, if you are printing on both sides of A3 size paper and the results are different from what you expected as shown below, use the following procedure to change the settings. These settings can be changed for each job.



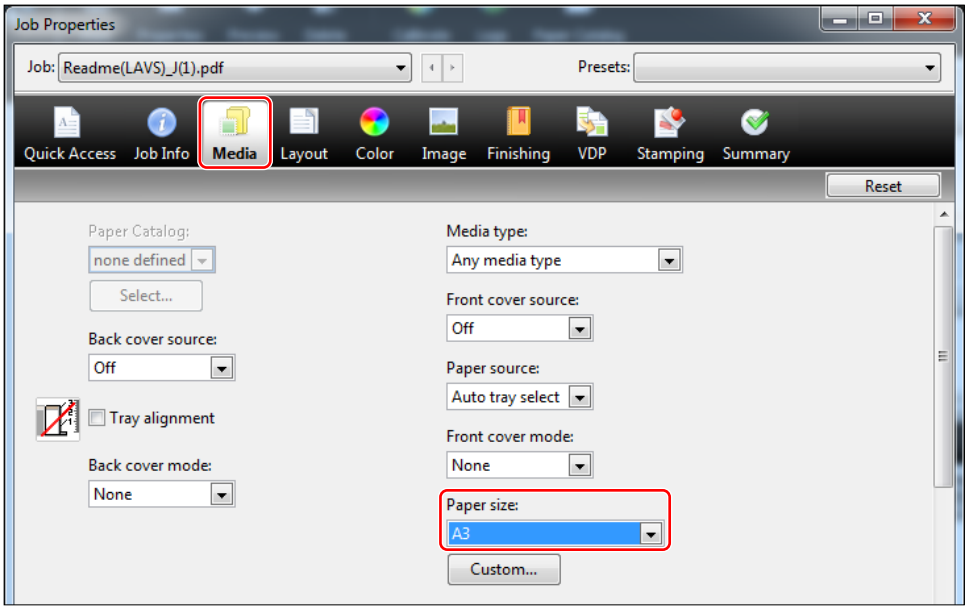
What you wanted to print

What actually was printed

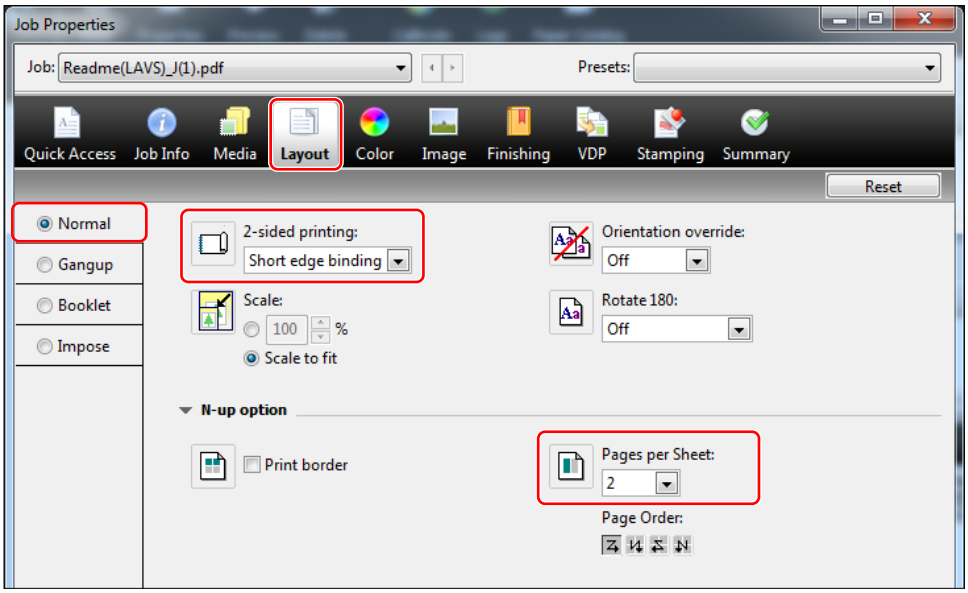
1 Double-click the job on Command WorkStation of imagePRESS Server.

- [Job Properties] is displayed.

2 Click the [Media] tab → select <A3> for [Paper size].



3 Click the [Layout] tab → select [Normal] → <Short edge binding> for [2-sided printing] and <2> for [Pages per Sheet].

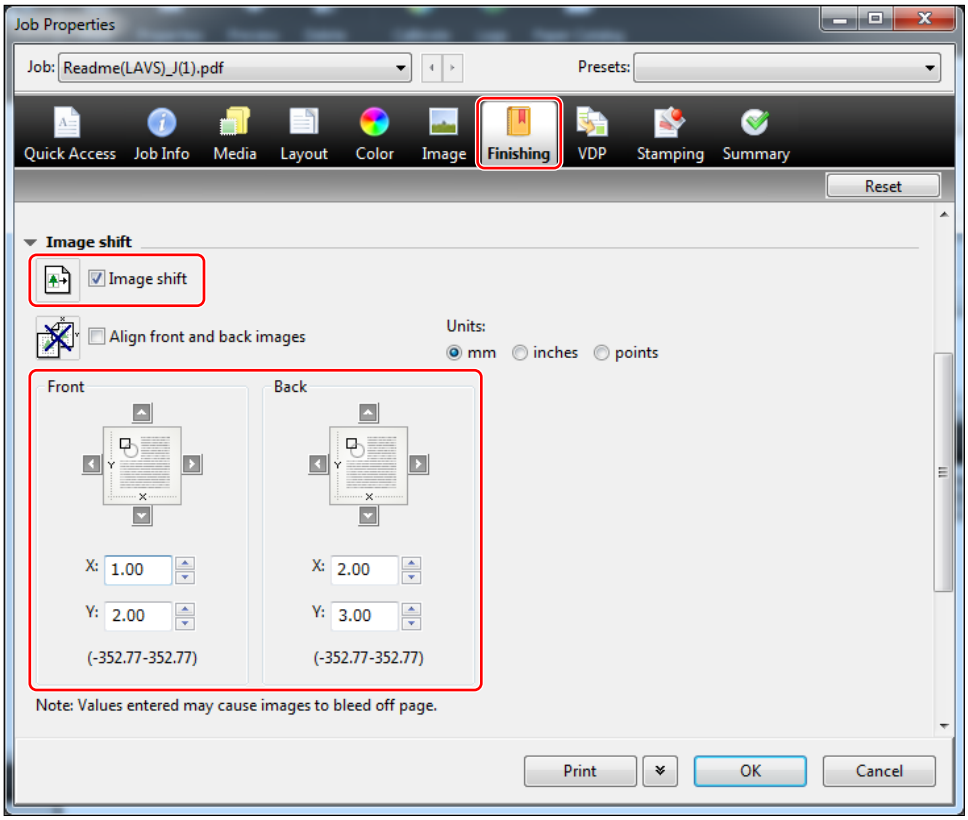


NOTE

If you select [Booklet], not [Normal], you cannot select [Image shift] in step 4. If you want to make a booklet, you need to print the job and then saddle stitch it separately.

4 Click the [Finishing] tab → select [Image shift] and enter the value in millimeters (inches) to move the image horizontally (X direction) and vertically (Y direction).

- In this case, enter the value for each direction as shown below.
  [Front] X: 1.00 mm, Y: 2.00 mm [Back] X: 2.00 mm, Y: 3.00 mm

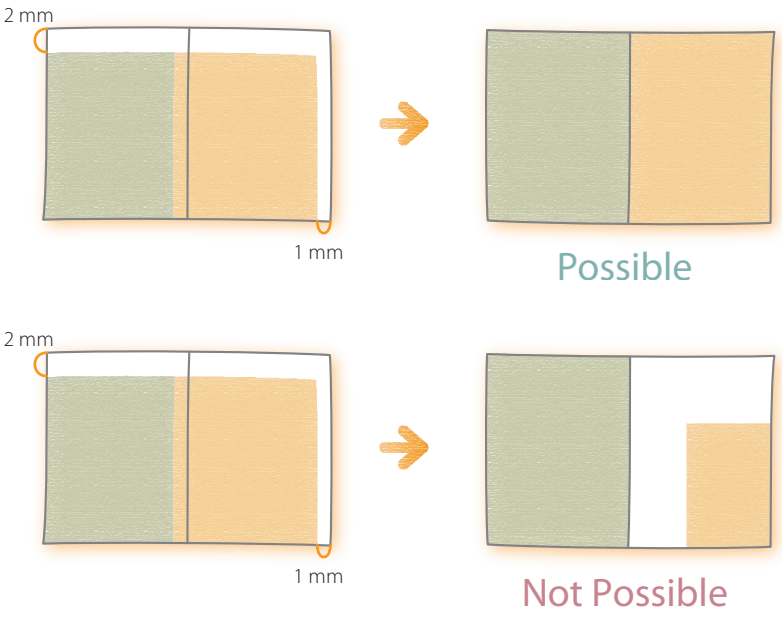


5 Click [Print].

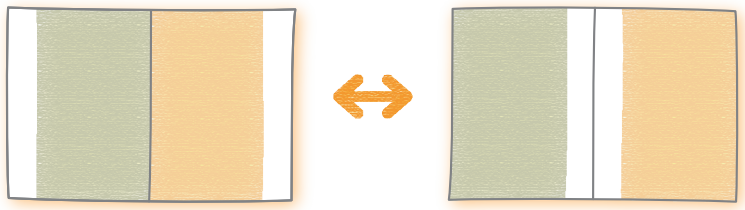
- The machine starts printing. After the misalignment problem is solved, saddle stitch the booklet separately if you want to make a booklet.

NOTE

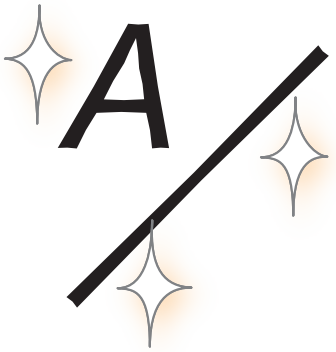
- You cannot move the image on each page after the imposition of images is completed. The laid out images on the two pages move together as a single image.



- If you select [Booklet] in step 3, you can move the image toward the fore-edge or the gutter of the page as shown in the illustration below. For more information, see the manual for the imagePRESS Server.



Getting Clear Texts and Lines from Your Machine



If you are not satisfied with printouts because of faint, blurry, or rough edges on text and lines, follow the procedures below to solve the problems.

Step 1 Eliminating the Basic Causes (p. 60)

Step 2 Changing Print Settings for a Job with the imagePRESS Server (p. 61)

Step 1 Eliminating the Basic Causes

Find the answers to your questions about how to solve your problems.

Q. Are the letters or lines too small or too thin?

A. If the letters or lines in the data you are printing are too small or too thin, the printed letters and lines may appear faint.

Solution

If possible, modify the data you are printing to enlarge the text and make the lines thicker.

Q. Are you using an outline font?

A. Outline fonts become thicker when they are printed, and they look different from their images on your computer screen.

Solution

- If you set [1200dpi] for <Resolution>, it may reduce the thickness of fonts. For detailed procedure, see "Reducing the thickness of outline fonts." (p. 62)
- If possible, print the image using a non-outline font.

Step 2 Changing Print Settings for a Job with the imagePRESS Server

If printed text or lines are still faint or blurry after you follow the procedures in step 1 "Eliminating the Basic Causes," change the print settings in Command WorkStation on the imagePRESS Server. Note that if you change the following print settings, it may affect the print results, such as when printing photos. If possible, we recommend you change the settings gradually, so you can judge the effect of the changes that you make.

- Printing figures, lines, and text with vivid clarity while keeping the smooth gradation of photographs
- Printing text with vivid clarity while keeping the smooth gradation of photographs, figures, and lines
- Reducing jagged edges on text and lines
- Printing text thicker because the thin lines of Roman fonts appear faint
- Reducing the thickness of outline fonts

"Changing Settings in the Image Tab" (p. 61)

- Printing black text and lines clearly

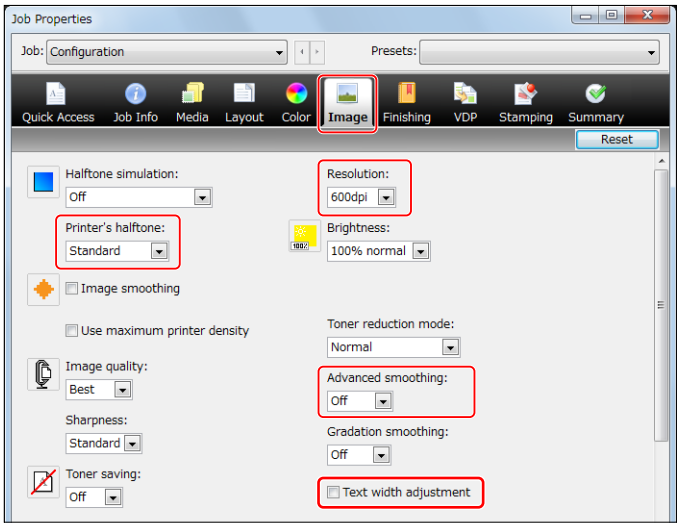
"Changing Settings in the Color Tab" (p. 66)

Changing Settings in the Image Tab

1 Double-click the job in Command WorkStation.

- [Job Properties] is displayed.

2 Click the [Image] tab → change the print settings for <Printer's halftone>, <Advanced smoothing>, <Text width adjustment>, <Resolution> if necessary.



Printing figures, lines, and text with vivid clarity while keeping the smooth gradation of photographs

Select [Pattern 2] or [Pattern 7] for <Printer's halftone>.

- If you want to keep the gradation of figures and lines, select [Pattern 7].

Printing text with vivid clarity while keeping the smooth gradation of photographs, figures, and lines

Select [Pattern 4] for <Printer's halftone>.

Reducing jagged edges on text and lines

Select [Level 1] or [Level 2] for <Advanced smoothing>.

- To use this function, you need to specify the settings for advanced smoothing in advance. For detailed information, see "Specifying the Settings for the Printout's Finish." (p. 64)

Printing text thicker because the thin lines of Roman fonts appear faint

Check the check box for <Text width adjustment>.

- To use this function, you need to specify the thickness and font color for the target text in advance. For detailed information, see "Specifying the Settings for the Printout's Finish." (p. 64)

Reducing the thickness of outline fonts

Select [1200dpi] for <Resolution>.

- In some cases, this may make lines too thin and faint because it prints text and lines exactly as they are in the data.

3 Click [OK].

- Print a test sheet to check the sharpness of text and lines. If you are satisfied with the result, you can print a job.

Patterns for <Printer's halftone>

Each of the following dither patterns, [Gradation], [Resolution], and [Error diffusion], has been set in this machine by default.

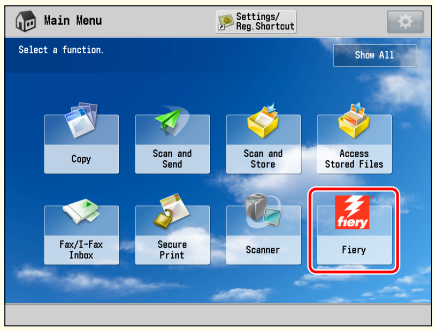
Dither Pattern	Name	Features
	Gradation	This pattern is appropriate for producing an image, such as a picture, for which the gradation is important.
	Resolution	This pattern is appropriate for producing text and thin lines.
	Error diffusion	This pattern is appropriate for producing text and thin lines because no jagged edges (rough edges in an image) appear on it.

If you select [Pattern 2], [Pattern 4], and [Pattern 7] for <Printer's halftone>, these patterns above are automatically set to the output image.

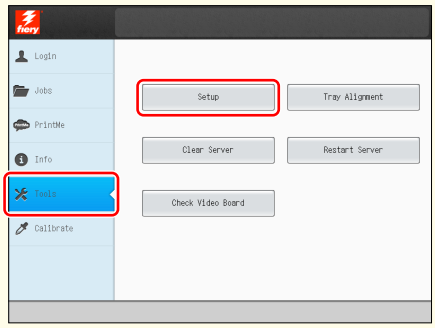
Pattern	Images (Photographs)	Graphics (Figures and Lines)	Text (Letters)
Pattern 2	Gradation	Error diffusion	Error diffusion
Pattern 4	Gradation	Gradation	Error diffusion
Pattern 7	Gradation	Resolution	Error diffusion

Specifying the Settings for the Printout's Finish

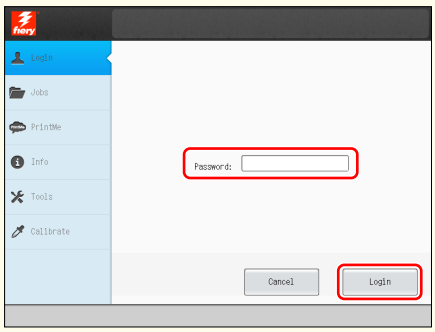
1 Press [Home] → [Fiery].



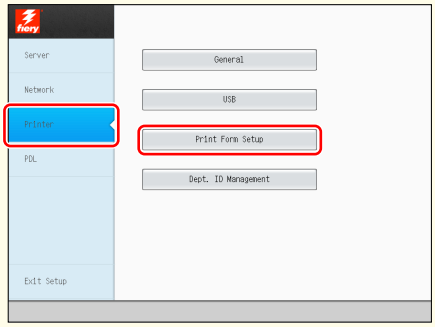
2 Press [Tools] → [Setup].



3 Enter the password → press [Login].



4 Press [Printer] → [Print Form Setup].



5 Specify the settings for Advanced smoothing.

- If you want to reduce jagged edges on lines, select [On] for <Advanced smoothing for graphics>.
- If you want to reduce jagged edges on text, select [On] for <Advanced smoothing for text>.
- If you want to apply the advanced smoothing settings to direct printing, such as PDF printing, select [Level 1] or [Level 2] for <Advanced smoothing>. ([Level 2] is more effective.)

6 Specify the settings for the text element.

- If you want to make horizontal lines on the text thicker, select [Level 1] or [Level 2] for <Horizontal text width adjustment>. ([Level 2] is more effective.)
- If you want to make vertical lines in the text thicker, select [Level 1] or [Level 2] for <Vertical text width adjustment>. ([Level 2] is more effective.)
- If you want to specify the settings for the text element for black text only, select [Black only] for <Text width adjustment color>.
- If you want to apply the settings for the text element for direct printing, such as PDF printing, select [On] for <Text width adjustment>.

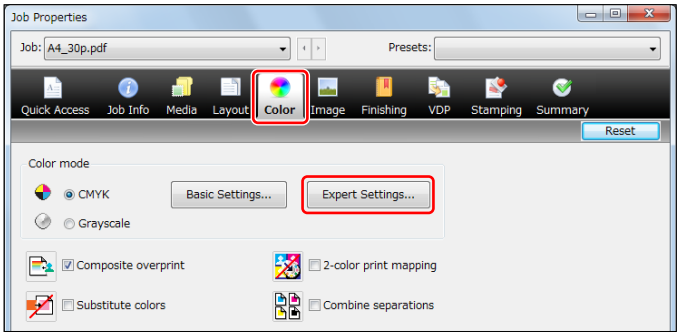
7 Press [Save Changes].

■ Changing Settings in the Color Tab

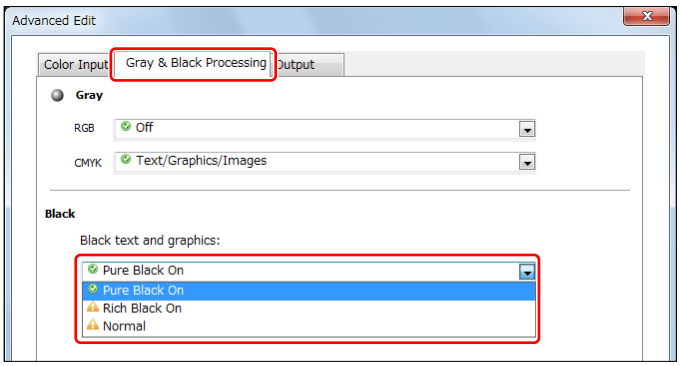
1 Double-click the job in Command WorkStation.

- [Job Properties] is displayed.

2 Click the [Color] tab → [Expert Settings].



3 Click the [Gray & Black Processing] tab, and change the print settings in <Black text and graphics> according to what you are printing and how you want the printouts to appear.



Printing black text and lines clearly

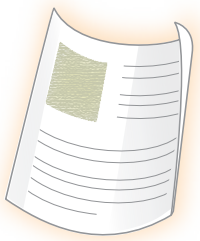
Select [Pure Black On] or [Rich Black On] for <Black text and graphics>.

- You can make black elements in printouts more vivid if you select [Rich Black On] rather than [Pure Black On], because [Rich Black On] produces black by adding cyan to black.

4 Click [OK] → [OK].

- Print a test sheet to check the sharpness of text and lines. If you are satisfied with the result, you can print a job.

How to Fix Curled Printouts



If printouts are curled, follow the procedures described in this section to solve the problems.

Step 1 Eliminating the Basic Causes of Curled Paper (p. 68)

Step 2 Changing Settings on the Machine According to Paper Characteristics (p. 69)

Step 1 Eliminating the Basic Causes of Curled Paper

Find the answers to your questions about how to solve your problems.

Q. Is the machine or paper located in a high or low humidity environment?

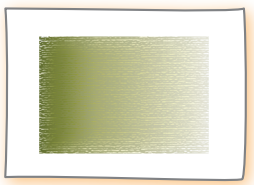
A. The humidity may cause the paper to expand or shrink. If you store the paper in an extremely high or low humidity environment, the paper may curl before printing.

Solution

- Keep the machine and paper in a room with steady temperature and humidity. If the temperature and humidity are unstable, it may cause the paper to expand or shrink, resulting in curled paper.
- For the appropriate temperature and humidity, see the *Installation and Operating Environment Guidelines* or the *Specialty Media Handling Guide*.
- Before you load paper, place the package of paper near the machine so it can fully acclimatize to the temperature and humidity.
- Unwrap the paper immediately before you load it into the machine.

Q. Are the edges of the image extremely dark?

A. If the edges of the image are extremely dark, the paper may tend to curl during printing.



Solution

- Decrease the density in the very dark areas to reduce the difference in the density between the dark and light areas.
- Use heavier paper.

Step 2 Changing Settings on the Machine According to Paper Characteristics

If you still have the same problem after you follow the procedures in "Eliminating the Basic Causes of Curled Paper" in step 1, change the settings to meet characteristics of the paper you are using.

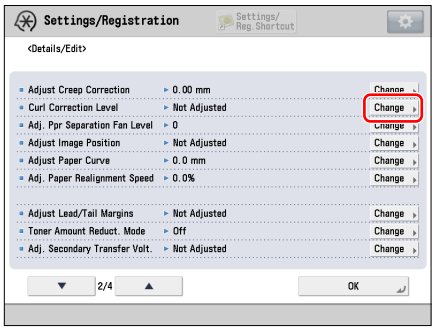
IMPORTANT

This function may affect how paper is fed. Since increasing the value to a great extent may cause paper jams, we recommend adjusting the values in small increments.

1 Press ⚙ → [Preferences] → [Paper Settings] → [Paper Type Management Settings].

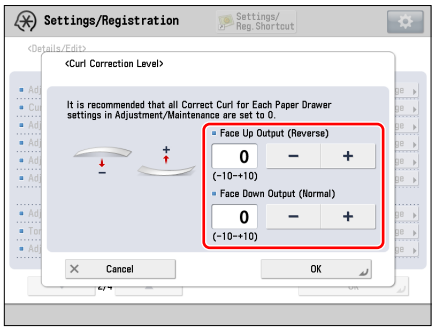
"Paper Type Management" > "Adjusting the Level of Curl Correction" in the e-Manual

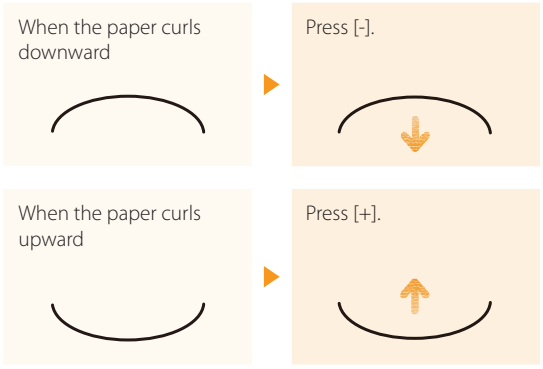
2 Select the paper type that you want to edit from the list → press [Details/Edit] → [Change] for <Curl Correction Level>.



3 Press [-] or [+] under [Face Up Output (Reverse)] or [Face Down Output (Normal)] to correct the curl correction level.

- To determine the curl direction, watch the paper as it is output to the output tray.
- Adjust the curl correction level in the direction opposite to the direction that the output paper is curled.





4 Make test copies or prints on the paper for which you have adjusted the machine and check the condition of the printouts.

- Repeat steps 1 to 4 to adjust the curl correction level until the paper does not curl when it is output.

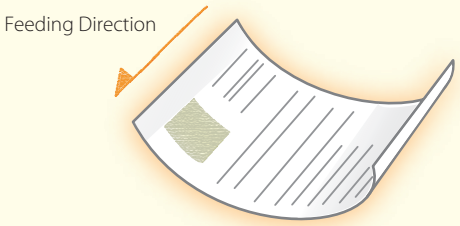
NOTE

The regular procedure is to set the level of curl correction in advance to suit the characteristics of each type of paper. This is because the curl in the paper depends on the paper's materials and basis weight. However, if significant changes in the environment, such as temperature and humidity, occur for some reason, and the changes temporarily affect the condition of the paper, such as moisture content, the curl may not be corrected to your satisfaction. If this happens, see the following and adjust the level of the curl correction for the paper source in which you have loaded the paper for which you want to calibrate the machine.

"Adjustment for Image Quality and Finishing (Calibration)" > "Curl Correction for Each Paper Drawer" in the e-Manual

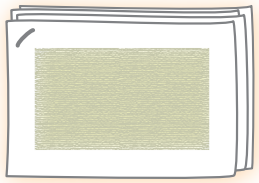
How to Fix a Curl That Is Perpendicular to the Direction of Paper Feed

Printouts may not curl if you print on the back side of the paper. However, be careful of the paper's finish, because the finish of the front and back sides of the paper may differ, depending on the type of paper. If the printouts are still curled even if you print on the back side of the paper, follow the procedures described above to adjust the curl correction level.



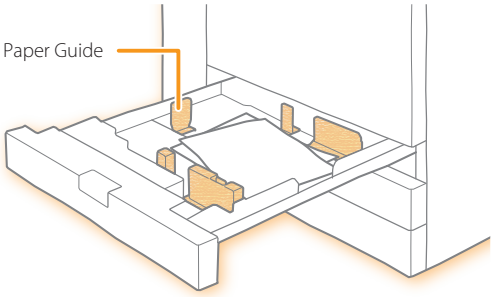
How to Align and Staple Printouts

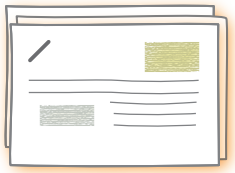
If the stapled papers are misaligned, follow the procedures below to solve the problem.



Q. Did you load paper in the correct position?

A. If you place the paper guides in the wrong position or do not align the edges of the paper before you load it, stapled papers may be misaligned.





If you place the paper guides in the wrong position, stapled papers may be misaligned.

Solution

- Align the edges of the paper and load it again.
- Make sure that the paper guides are placed in the correct position.

Q. Does the paper shrink when it is output?

A. Depending on the paper, printed paper may shrink. As a result, the saddle stitch position may be misaligned.

Solution

See the following and adjust the position to align the paper.

"Adjustment for Image Quality and Finishing (Calibration)" > "Paper Alignment When Stapling" in the e-Manual

Q. Is [Speed Priority] set to the mode for double stapling?

A. You can set whether to give priority to speed or precision for double stapling. If you select speed priority, the precision for double stapling may fall.

Solution

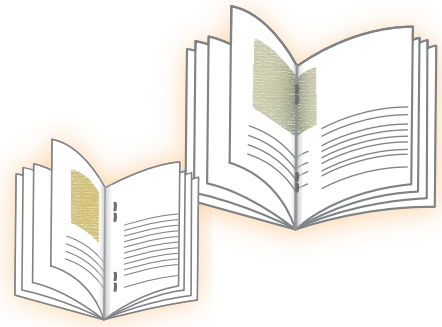
See the following and change the mode to [Precision Priority].

"Adjustment for Image Quality and Finishing (Calibration)" > "Speed/Precision Priority for Double Staple" in the e-Manual

How to Adjust the Saddle Stitch Position

When you make a saddle stitch booklet, if you notice the following phenomena, you need to adjust the saddle stitch position. Follow the procedures below to solve the problem.

- The saddle stitch fold position is not aligned with the saddle stitch position.
- The saddle stitch fold and saddle stitch positions are not in the center of the booklet.



Step 1	Adjusting the Saddle Stitch Position to the Center of the Booklet (p. 73)
Step 2	Adjusting the Saddle Stitch Fold Position to the Center of the Booklet (p. 75)

Step 1 Adjusting the Saddle Stitch Position to the Center of the Booklet

Adjust the saddle stitch position to the center of the booklet.

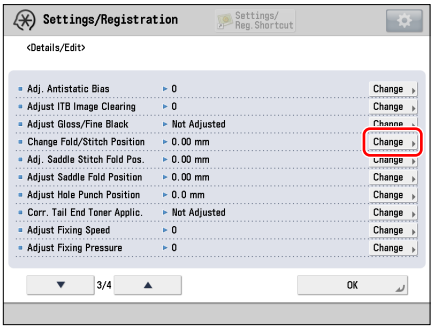
NOTE

If the saddle stitch position is exactly in the center of the booklet but the saddle stitch fold position is not, skip this step, go to the procedures in step 2 "Adjusting the Saddle Stitch Fold Position to the Center of the Booklet."

1 Press → [Preferences] → [Paper Settings] → [Paper Type Management Settings].

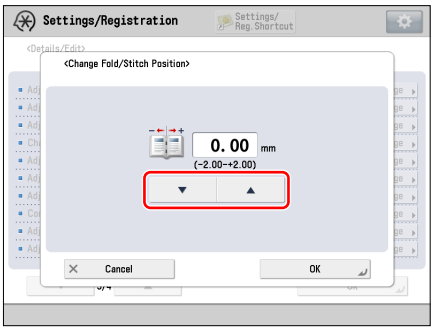
"Paper Type Management" > "Adjusting the Saddle Stitch Position" in the e-Manual

2 Select the paper type that you want to edit from the list → press [Details/Edit] → [Change] for <Change Fold/Stitch Position>.



3 Press [▼] or [▲] to adjust the saddle stitch position.

- If you want the saddle stitch position to shift to the right while facing the printed side of the printout, increase the setting value.
- If you want the saddle stitch position to shift to the left while facing the printed side of the printout, decrease the setting value.



4 Make test prints and check the finish.

- If the saddle stitch position is still not exactly in the center of the booklet, repeat steps 1 to 4 until the saddle stitch position is shifted exactly to the center of the booklet.

- If the saddle stitch position has shifted exactly to the center of the booklet, but the saddle stitch fold position is not, go to the procedures in step 2 "Adjusting the Saddle Stitch Fold Position to the Center of the Booklet."

Step 2 Adjusting the Saddle Stitch Fold Position to the Center of the Booklet

Adjust the saddle stitch fold position to the center of the booklet.

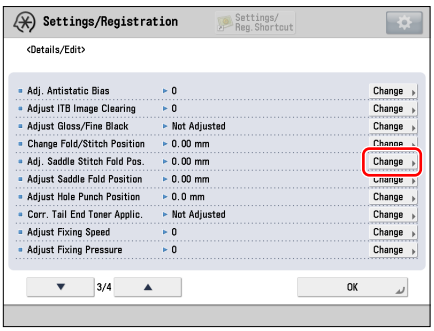
NOTE

If the saddle stitch position is not exactly in the center of the booklet, follow the procedures in step 1 "Adjusting the Saddle Stitch Position to the Center of the Booklet."

1 Press ⚙ → [Preferences] → [Paper Settings] → [Paper Type Management Settings].

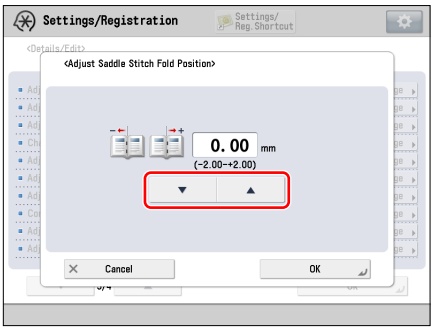
"Paper Type Management" > "Adjusting the Saddle Stitch Fold Placement" in the e-Manual

2 Select the paper type that you want to edit from the list → press [Details/Edit] → [Change] for <Adj. Saddle Stitch Fold Pos.>.



3 Press [▼] or [▲] to adjust the saddle stitch fold position.

- If you want the saddle stitch fold position to shift to the right while facing the printed side of the printout, increase the setting value.
- If you want the saddle stitch fold position to shift to the left while facing the printed side of the printout, decrease the setting value.

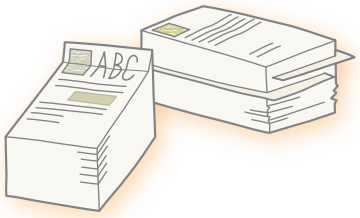


4 Make test prints and check the finish.

- If the saddle stitch position is exactly in the center of the booklet, but the saddle stitch fold position is not, repeat steps 1 to 4 until the saddle stitch fold position is shifted exactly to the center of the booklet.

How to Align Printouts

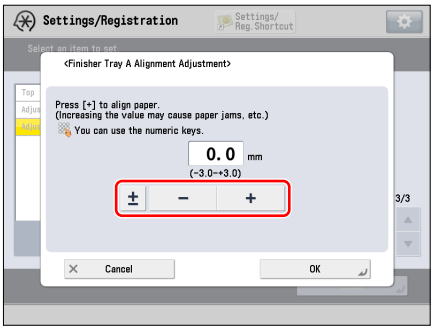
If printouts are misaligned or the edges of printouts are folded on the output trays of the finisher, follow the procedures below to solve the problem.



1 Press ⚙ → [Adjustment/Maintenance] → [Adjust Action] → [Finisher Tray A Alignment Adjustment] or [Finisher Tray B Alignment Adjustment].

"Adjustment for Image Quality and Finishing (Calibration)" > "Paper Alignment on Finisher Tray A/B" in the e-Manual

2 Press [-] or [+] to adjust the paper alignment.



- If the edges of printouts are folded
  Press [-] to increase the width for aligning printouts.

- If printouts are misaligned
  Press [+] to decrease the width for aligning printouts.

NOTE

If you set [Staple] in the finishing mode, the adjustments in [Finisher Tray A Alignment Adjustment] and [Finisher Tray B Alignment Adjustment] are disabled.

How to Align Thin Paper

The frequency of the misalignment of printouts increases when using "Thin 2 (52 g/m^2 to 63 g/m^2 (14 lb bond to 16 lb bond))" paper, compared with other types of paper, due to the characteristics of the paper. Setting [Alignment Priority] for [Finisher Output Priority Settings (Thin)] may improve the situation.

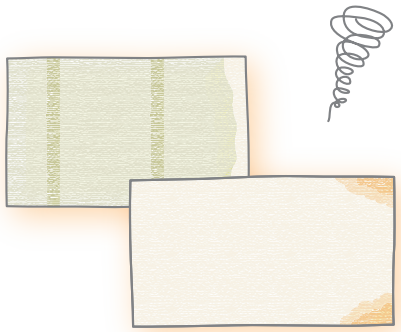
"Adjustment for Image Quality and Finishing (Calibration)" > "Changing the Finisher Output Priority Settings (Thin)" in the e-Manual

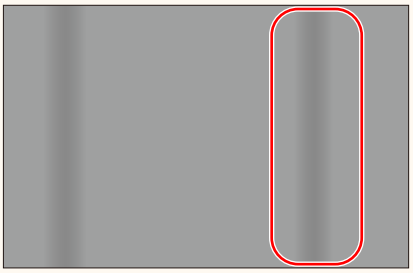
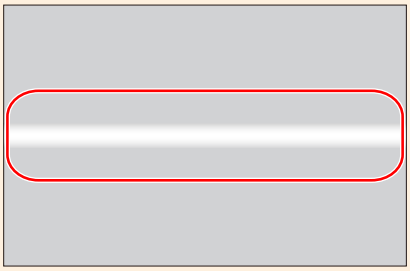
NOTE

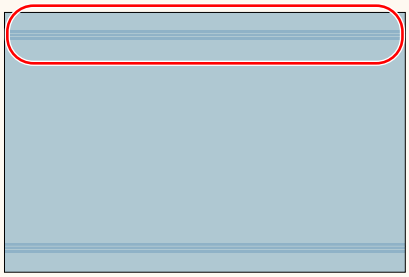
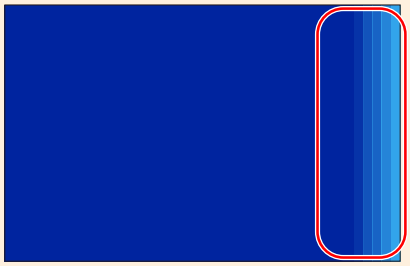
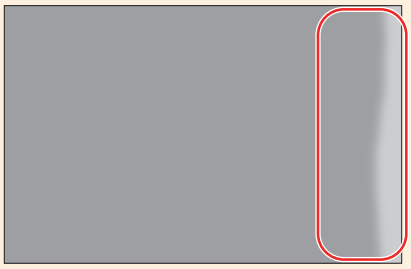
This setting is enabled only when using "Thin 2" paper, and is disabled when using other types of paper, such as "Plain" or "Thin 1 (64 g/m^2 to 79 g/m^2 (17 lb bond to 20 lb bond))" paper.

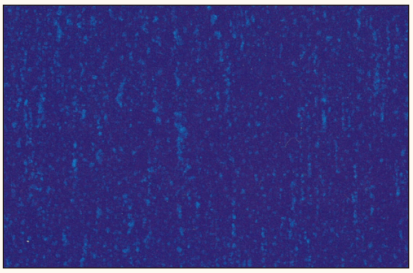
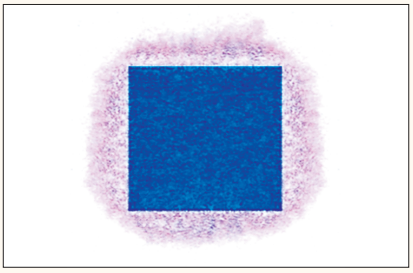
Problems with Printouts That Look Like the Following Images

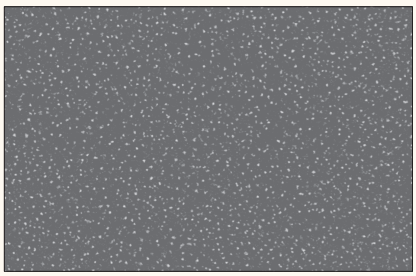
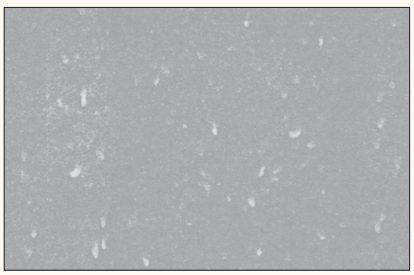
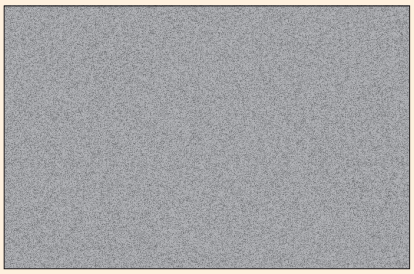
If your printouts consistently appear as shown in the images below, refer to the cause and remedy described here to solve the problem. However, please refer to the e-Manual and confirm the instructions before you adjust the settings, because adjusting the settings may cause the color balance to become unstable. If the situation does not improve even after adjusting the settings, contact your local authorized Canon dealer.

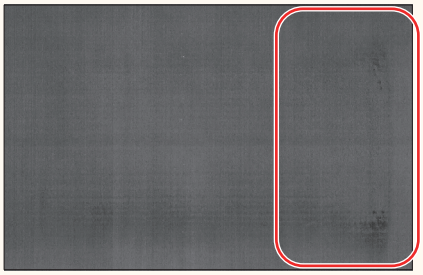
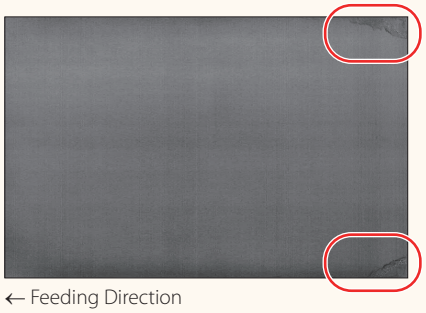


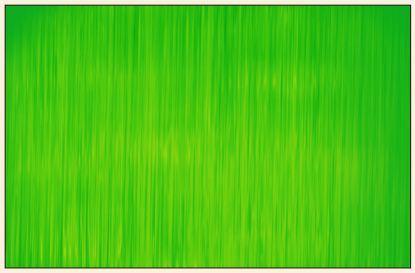
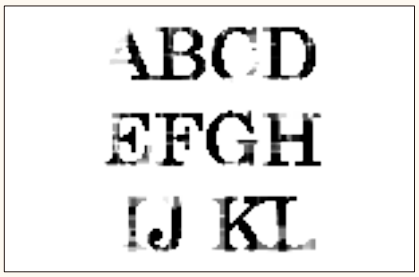
When Your Printouts Look Like...	Check the Cause and Remedy Below
Streaks that are perpendicular to the direction of feed appear in the printout.  ← Feeding Direction	**Cause** The intermediate transfer belt is warped. **Remedy** If you have not used your machine for a long period of time, the intermediate transfer belt may become warped. If this happens, clean inside the main unit several times. Press ⊛ → [Adjustment/Maintenance] → [Maintenance] → [Clean Inside Main Unit]. "Maintenance" > "Output Paper Becomes Dirty (Cleaning Inside of the Main Unit)" in the e-Manual
Streaks that are parallel to the direction of feed appear in the printout.  ← Feeding Direction	**Cause** The corona assembly wires inside the main unit are dirty. **Remedy** Clean the corona assembly wires inside the main unit several times. Press ⊛ → [Adjustment/Maintenance] → [Maintenance] → [Clean Wire]. "Maintenance" > "Output Paper Becomes Dirty (Wire Cleaning)" in the e-Manual

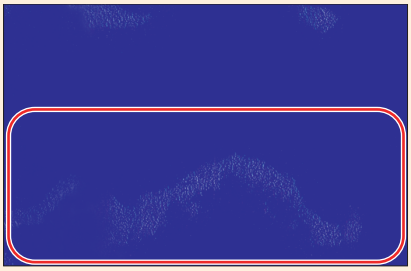
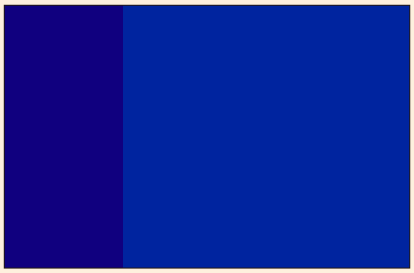
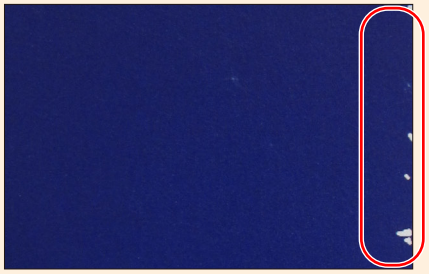
When Your Printouts Look Like...	Check the Cause and Remedy Below
Glossy streaks appear on both edges of the page parallel to the direction of feed.  ← Feeding Direction	**Cause** Parts of the surface of the fixing belt are rough. **Remedy** Refresh the fixing belt. Press ⚙ → [Adjustment/Maintenance] → [Maintenance] → [Refresh Fixing Belt]. "Maintenance" > "Streaks and Gloss Unevenness Appear on Output Paper (Refreshing the Fixing Belt)" in the e-Manual
Color becomes faint on the tail end of the paper, when the printout is very dark.  ← Feeding Direction Toner is not applied to the tail end of the paper, which appears white, when the printout is very light.  ← Feeding Direction	**Cause** Tail end of the paper is curled. **Remedy** • This may occur because the toner is not applied evenly to the curled parts of the paper. Eliminate the cause of paper curl. "How to Fix Curled Printouts" (p. 68) • To improve this situation when using paper that tends to curl, adjust the value for <Corr. Tail End Toner Applic.> to match the specific characteristics of the paper. Press ⚙ → [Preferences] → [Paper Settings] → [Paper Type Management Settings] → select the type of paper you are using that is having this problem → press [Details/Edit] → [Change] for <Corr. Tail End Toner Applic.> → adjust the correction value. If images are faint, adjust the correction value toward the minus end in [Correction Level]. If the tail end of the paper appears white, adjust the correction value toward the plus end in [Correction Level]. "Paper Type Management" > "Changing the Tail End White Patch Correction" in the e-Manual

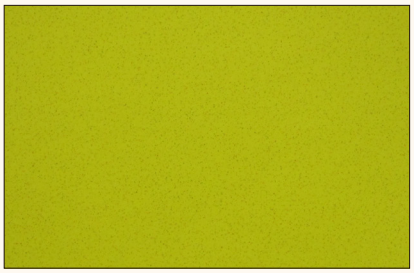
When Your Printouts Look Like...	Check the Cause and Remedy Below
Uneven glossy areas may occur in high density images. (Type A)  Toner may splatter around the edges of high density images. (Type A) 	**Cause** The voltage that transfers toner to the paper does not match the specific characteristics of the paper. **Remedy** To improve this situation, adjust the value for <Adj. Secondary Transfer Volt.> to match the specific characteristics of the paper. There are two types of problems; type A and type B. Adjust the value according to the problem with your printout. Press → [Preferences] → [Paper Settings] → [Paper Type Management Settings] → select the type of paper you are using that is having this problem → press [Details/Edit] → [Change] for <Adj. Secondary Transfer Volt.> → adjust the voltage value. For type A, adjust the voltage value toward the plus end. For type B, adjust the voltage value toward the minus end. "Paper Type Management" > "Adjusting the Secondary Transfer Voltage" in the e-Manual

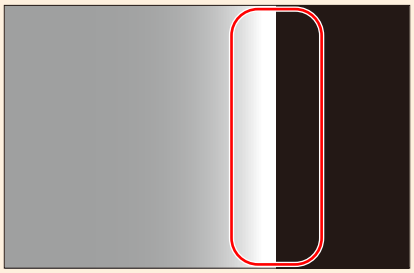
When Your Printouts Look Like...	Check the Cause and Remedy Below
Paper surface is rough in low density areas. (Type B)  Tiny white spots appear. (Type B) 	**Cause** The voltage that transfers toner to the paper does not match the specific characteristics of the paper. **Remedy** To improve this situation, adjust the value for <Adj. Secondary Transfer Volt.> to match the specific characteristics of the paper. There are two types of problems; type A and type B. Adjust the value according to the problem with your printout. Press → [Preferences] → [Paper Settings] → [Paper Type Management Settings] → select the type of paper you are using that is having this problem → press [Details/Edit] → [Change] for <Adj. Secondary Transfer Volt.> → adjust the voltage value. For type A, adjust the voltage value toward the plus end. For type B, adjust the voltage value toward the minus end. "Paper Type Management" > "Adjusting the Secondary Transfer Voltage" in the e-Manual
The definition of the printout is low. 	**Cause** The dither settings are not appropriate for the image being printed. **Remedy** To improve this situation, adjust the dither settings to increase the space between halftone dots. Press → [Adjustment/Maintenance] → [Adjust Image Quality] → [Dither Settings] → decrease the setting value for <Gradation> and <Resolution>. "Adjustment for Image Quality and Finishing (Calibration)" > "Dither Settings" in the e-Manual

When Your Printouts Look Like...	Check the Cause and Remedy Below
The definition of the printout on coated paper is low.  ← Feeding Direction  ← Feeding Direction	**Cause** The coating on the paper has become uneven. **Remedy** • If paper loses moisture and the moisture content becomes irregular, the surface of the paper may become uneven. Avoid storing paper stock in extremely low humidity environments for a long period of time, unless it is suitably wrapped. • To improve this situation, adjust the settings for <Correct Image for Scratching> to match the specific characteristics of the paper. Press ⓐ → [Preferences] → [Paper Settings] → [Paper Type Management Settings] → select the type of paper you are using that is having this problem → press [Details/Edit] → [Change] for <Correct Image for Scratching> → set [On]. "Paper Type Management" > "Correcting the Image for Scratching" in the e-Manual

When Your Printouts Look Like...	Check the Cause and Remedy Below
A part of the image is faint, and fine streaks appear in the faint area.  ← Feeding Direction	**Cause** Too much toner is being used. **Remedy** To improve this situation, do an automatic gradation adjustment that adjusts the total amount of toner. Press ⚙ → [Adjustment/Maintenance] → [Adjust Image Quality] → [Auto Adjust Gradation]. "Adjustment for Image Quality and Finishing (Calibration)" > "Automatic Gradation Adjustment" in the e-Manual
Text and images do not print clearly.  	**Cause** The toner does not fully fix to the paper because the printer is installed in a hot or humid environment that has caused condensation on the photoconductor drum. **Remedy** When printing in black and white, increase the temperature of the photoconductor drum. Press ⚙ → [Adjustment/Maintenance] → [Adjust Image Quality] → [Adjust Drum Temperature] → select [High]. "Adjustment for Image Quality and Finishing (Calibration)" > "Adjusting Drum Temperature" in the e-Manual

When Your Printouts Look Like...	Check the Cause and Remedy Below
A pattern that looks like something slithering across the paper appears.  ← Feeding Direction	**Cause** Temperature for fixing toner does not match the specific characteristics of the paper. **Remedy** To improve this situation, adjust the value for <Adjust Gloss/Fine Black> to match the specific characteristics of the paper. Press ⓐ → [Preferences] → [Paper Settings] → [Paper Type Management Settings] → select the type of paper you are using that is having this problem → press [Details/Edit] → [Change] for <Adjust Gloss/Fine Black> → adjust the value for [Gloss] toward the minus end. "Paper Type Management" > "Adjusting the Gloss and Fine Black" in the e-Manual
Uneven gloss occurs.  High Gloss Low Gloss ← Feeding Direction	
White spots like blisters appear.  ← Feeding Direction	

When Your Printouts Look Like...	Check the Cause and Remedy Below
Yellow does not appear yellow. 	**Cause** The residue of other colors of toner has accumulated on the intermediate transfer belt. **Remedy** This phenomenon may occur if the toner does not fully fix to the paper you are using. In this case, to improve this situation, adjust the setting value for <Adjust ITB Image Clearing> to match the specific characteristics of the paper. Press ⚙ → [Preferences] → [Paper Settings] → [Paper Type Management Settings] → select the type of paper you are using that is having this problem → press [Details/Edit] → [Change] for <Adjust ITB Image Clearing> → adjust the image clear level to increase the precision of automatic cleaning of the intermediate transfer belt. "Paper Type Management" > "Adjusting the Image Clear Level of the ITB (Intermediate Transfer Belt)" in the e-Manual

When Your Printouts Look Like...	Check the Cause and Remedy Below
If colors that have the same hue but have different brightness are adjacent to each other, the boundary between light areas and dark areas appears white. This is because the toner does not fix to the paper.  ← Feeding Direction	**Cause** The machine cannot develop the images correctly at the border of two areas due to the deterioration of the developers. **Remedy** To improve this situation, adjust the voltage for the image development in [Correct White Gap]. Press → [Adjustment/Maintenance] → [Adjust Image Quality] → [Correct White Gap] → change the setting value to [1] or [2]. "Adjustment for Image Quality and Finishing (Calibration)" > "White Gap Correction" in the e-Manual
The moiré effect occurs when copying. 	**Cause** Moiré occurs when regularly spaced dots in two or more patterns in an image overlap. The dots in a halftone image may create a moiré effect when scanned by the machine. **Remedy** Select [Map] in [Original Type] to reduce the moiré effect. Press → [Copy] → [Options] → [Original Type] → select [Map].

Types of Paper You Can Use for Calibration

For the European and Asia-Pacific Regions

Calibration on the Machine

			Types of Paper You Want to Print on				
			Group A	Group B	Group C	Group B	Group C
			Types of Paper That Have Been Registered in Advance in the Machine (Standard Paper)				
			Thin 2, Thin 1, Plain 1, Plain 2, Recycled 1 to 3, Color 1, Color 2, Heavy 1 to 4, Textured 1 to 6, Vellum 1 to 3, Transparency, Pre-Punched 1, Pre-Punched 2, Tab 1, Tab 2, Labels, Bond 1 to 3, Letterhead, Envelopes	Heavy 5, Textured 7	Heavy 6, Textured 8	1-Sided Coated 1 to 3, 2-Sided Coated 1 to 3, Matte Coated 1 to 3	1-Sided Coated 4 to 6, 2-Sided Coated 4 to 6, Matte Coated 4 to 6
			Types of Paper the User Can Register (Custom Paper)				
			• Custom paper whose basis weight and finish are equivalent to Standard Paper (52 g/m² to 220 g/m²) • Custom paper whose finish is equivalent to Transparency, or Labels (52 g/m² to 150 g/m², 181 g/m² to 220 g/m²) • Custom paper whose finish is equivalent to Pre-Punched (91 g/m² to 220 g/m²) • Custom paper whose finish is equivalent to Tab (64 g/m² to 150 g/m²)	• Custom paper whose basis weight and finish are equivalent to Standard Paper (221 g/m² to 256 g/m²) • Custom paper whose finish is equivalent to Transparency, Tab, or Labels (221 g/m² to 256 g/m²)	• Custom paper whose basis weight and finish are equivalent to Standard Paper (257 g/m² to 300 g/m²) • Custom paper whose finish is equivalent to Transparency, Tab, or Labels (257 g/m² to 300 g/m²)	Custom paper whose basis weight and finish are equivalent to Standard Paper (106 g/m² to 180 g/m²)	Custom paper whose basis weight and finish are equivalent to Standard Paper (181 g/m² to 300 g/m²)
Types of Paper You Can Use for Calibration	Simple Calibration	Paper Required as a Reference to Calibrate Other Types of Paper		Canon Océ Top Colour Paper (100 g/m²)			
		Paper Required When You Want to Do a More Precise Calibration		Thin 1, Plain 1, Plain 2, or Heavy 1 to 4/uncoated paper, or custom paper with an equivalent finish and basis weight (64 g/m² to 220 g/m²)			
	Enhanced Calibration	Paper Required as a Reference to Calibrate Other Types of Paper	Canon Océ Top Colour Paper (100 g/m²)	Canon Océ Top Colour Paper (250 g/m²)	Canon Océ Top Colour Paper (300 g/m²)	Canon Océ Top Colour Paper (250 g/m²)	Canon Océ Top Colour Paper (300 g/m²)
		Paper Required When You Want to Do a More Precise Calibration	Thin 1, Plain 1, Plain 2, or Heavy 1 to 4/uncoated paper, or custom paper with an equivalent finish and basis weight (64 g/m² to 220 g/m²)	Heavy 5/uncoated paper, or custom paper with an equivalent finish and basis weight (221 g/m² to 256 g/m²)	Heavy 6/uncoated paper, or custom paper with an equivalent finish and basis weight (257 g/m² to 300 g/m²)	Heavy 5/uncoated paper, or custom paper with an equivalent finish and basis weight (221 g/m² to 256 g/m²)	Heavy 6/uncoated paper, or custom paper with an equivalent finish and basis weight (257 g/m² to 300 g/m²)

Calibration on the imagePRESS Server

		Types of Paper You Want to Print On				
		Group A	Group B	Group C	Group B	Group C
		Plain (52-220 gm2)	Thick (221-256 gm2)	Heavy Thick (257-300 gm2)	Coated (106-180 gm2)	Heavy Coated (181-300 gm2)
Types of Paper You Can Use for Calibration	Paper Required as a Reference to Calibrate Other Types of Paper	Canon Océ Top Colour Paper (100 g/m²)	Canon Océ Top Colour Paper (250 g/m²)	Canon Océ Top Colour Paper (300 g/m²)	OK Top Coat Plus (127.9 g/m²)	Futura Gloss Cover (271 g/m²)
	Paper Required When You Want to Do a More Precise Calibration		Same as the paper you want to use for printing			

For information on which paper you should use for calibration when you print on paper registered in the paper database, contact your local authorized Canon dealer. The name of the 'Paper required as a reference to calibrate other types of paper' is subject to change without notice. For more information, contact your local authorized Canon dealer.

For the American Region

Calibration on the Machine

			Types of Paper You Want to Print on				
			Group A	Group B	Group C	Group B	Group C
			Types of Paper That Have Been Registered in Advance in the Machine (Standard Paper)				
			Thin 2, Thin 1, Plain 1, Plain 2, Recycled 1 to 3, Color 1, Color 2, Heavy 1 to 4, Textured 1 to 6, Vellum 1 to 3, Transparency, Pre-Punched 1, Pre-Punched 2, Tab 1, Tab 2, Labels, Bond 1 to 3, Letterhead, Envelopes	Heavy 5, Textured 7	Heavy 6, Textured 8	1-Sided Coated 1 to 3, 2-Sided Coated 1 to 3, Matte Coated 1 to 3	1-Sided Coated 4 to 6, 2-Sided Coated 4 to 6, Matte Coated 4 to 6
			Types of Paper the User Can Register (Custom Paper)				
			• Custom paper whose basis weight and finish are equivalent to Standard Paper (14 lb bond to 80 lb cover (52 g/m² to 220 g/m²)) • Custom paper whose finish is equivalent to Transparency, or Labels (14 lb bond to 40 lb bond (52 g/m² to 150 g/m²), 67 lb cover to 81 lb cover (181 g/m² to 220 g/m²)) • Custom paper whose finish is equivalent to Pre-Punched (25 lb bond to 80 lb cover (91 g/m² to 220 g/m²)) • Custom paper whose finish is equivalent to Tab (17 lb bond to 40 lb bond (64 g/m² to 150 g/m²))	• Custom paper whose basis weight and finish are equivalent to Standard Paper (82 lb cover to 140 lb index (221 g/m² to 256 g/m²)) • Custom paper whose finish is equivalent to Transparency, Tab, or Labels (82 lb cover to 140 lb index (221 g/m² to 256 g/m²))	• Custom paper whose basis weight and finish are equivalent to Standard Paper (140 lb index to 110 lb cover (257 g/m² to 300 g/m²)) • Custom paper whose finish is equivalent to Transparency, Tab, or Labels (140 lb index to 110 lb cover (257 g/m² to 300 g/m²))	Custom paper whose basis weight and finish are equivalent to Standard Paper (29 lb bond to 66 lb cover (106 g/m² to 180 g/m²))	Custom paper whose basis weight and finish are equivalent to Standard Paper (67 lb cover to 110 lb cover (181 g/m² to 300 g/m²))
Types of Paper You Can Use for Calibration	Simple Calibration	Paper Required as a Reference to Calibrate Other Types of Paper		Hammermill Color Copy Digital (28 lb. (105 g/m²))			
		Paper Required When You Want to Do a More Precise Calibration		Thin 1, Plain 1, Plain 2, or Heavy 1 to 4/uncoated paper, or custom paper with an equivalent finish and basis weight (17 lb bond to 80 lb cover (64 g/m² to 220 g/m²))			
	Enhanced Calibration	Paper Required as a Reference to Calibrate Other Types of Paper	Hammermill Color Copy Digital (28 lb. (105 g/m²))	Mohawk Options Navajo Smooth Brilliant White (90 lb. Cover (243 g/m²))	Hammermill Color Copy Digital Cover (100 lb. (271 g/m²))	Mohawk Options Navajo Smooth Brilliant White (90 lb. Cover (243 g/m²))	Hammermill Color Copy Digital Cover (100 lb. (271 g/m²))
		Paper Required When You Want to Do a More Precise Calibration	Thin 1, Plain 1, Plain 2, or Heavy 1 to 4/uncoated paper, or custom paper with an equivalent finish and basis weight (17 lb bond to 80 lb cover (64 g/m² to 220 g/m²))	Heavy 5/uncoated paper, or custom paper with an equivalent finish and basis weight (82 lb cover to 140 lb index (221 g/m² to 256 g/m²))	Heavy 6/uncoated paper, or custom paper with an equivalent finish and basis weight (140 lb index to 110 lb cover (257 g/m² to 300 g/m²))	Heavy 5/uncoated paper, or custom paper with an equivalent finish and basis weight (82 lb cover to 140 lb index (221 g/m² to 256 g/m²))	Heavy 6/uncoated paper, or custom paper with an equivalent finish and basis weight (140 lb index to 110 lb cover (257 g/m² to 300 g/m²))

Calibration on the imagePRESS Server

		Types of Paper You Want to Print On				
		Group A	Group B	Group C	Group B	Group C
		Plain (52-220 gm2)	Thick (221-256 gm2)	Heavy Thick (257-300 gm2)	Coated (106-180 gm2)	Heavy Coated (181-300 gm2)
Types of Paper You Can Use for Calibration	Paper Required as a Reference to Calibrate Other Types of Paper	Hammermill Color Copy Digital (28 lb. (105 g/m²))	Mohawk Options Navajo Smooth Brilliant White (90 lb. Cover (243 g/m²))	Hammermill Color Copy Digital Cover (100 lb. (271 g/m²))	OK Top Coat Plus (34 lb. (127.9 g/m²))	Futura Gloss Cover (100 lb. (271 g/m²))
	Paper Required When You Want to Do a More Precise Calibration		Same as the paper you want to use for printing			

For information on which paper you should use for calibration when you print on paper registered in the paper database, contact your local authorized Canon dealer. The name of the 'Paper required as a reference to calibrate other types of paper' is subject to change without notice. For more information, contact your local authorized Canon dealer.