Pro C7100S/C7100SX/C7110S/C7110SX / Pro C7100/C7100X/C7110/C7110X

Operating Instructions

Troubleshooting: TCRU/ORU

Read This First

Introduction

This manual contains detailed instructions and notes on the operation and use of this machine. For your safety and benefit, read this manual carefully before using the machine. Keep this manual in a handy place for quick reference.

How to Read This Manual

Symbols

This manual uses the following symbols:

Important

Indicates points to pay attention to when using the machine, and explanations of likely causes of paper misfeeds, damage to originals, or loss of data. Be sure to read these explanations.

Note

Indicates supplementary explanations of the machine's functions, and instructions on resolving user errors.

Reference

This symbol is located at the end of sections. It indicates where you can find further relevant information.

[ ]

Indicates the names of keys on the machine's display or control panels.

Disclaimer

Contents of this manual are subject to change without prior notice.

In no event will the company be liable for direct, indirect, special, incidental, or consequential damages as a result of handling or operating the machine.

Notes

The manufacturer shall not be responsible for any damage or expense that might result from the use of parts other than genuine parts from the manufacturer with your office products. For good output quality, the manufacturer recommends that you use genuine toner from the

manufacturer.

Some illustrations in this manual might be slightly different from the machine.

Certain options might not be available in some countries. For details, please contact your local dealer.

Depending on which country you are in, certain units may be optional. For details, please contact your local dealer.

Before You Begin

About This Manual

If the machine will not print, does not print as expected, or exhibits any other problem, find the problem in this manual and troubleshoot accordingly.

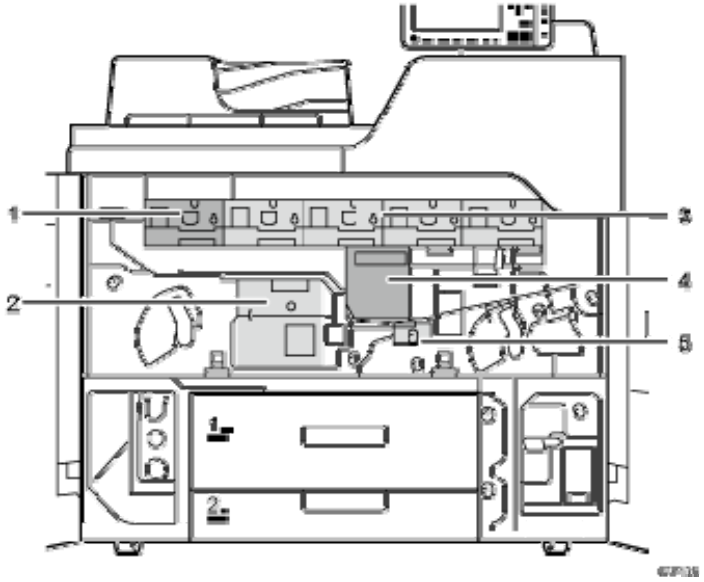
⚠CAUTION

- Before you replace any unit:
  - To prevent electrical shock, turn off the color controller on the machine control panel, switch off the main power switch then the main power switch, and then disconnect the machine from the power supply.
  - Allow the machine to cool for at least 30 minutes before replacing a part.

Names of Components

⚠WARNING

- Do not remove any covers or screws other than those explicitly mentioned in this manual. Inside this machine are high voltage components that are an electric shock hazard. Contact your sales or service representative if any of the machine's internal components require maintenance, adjustment, or repair.
- Do not attempt to disassemble or modify this machine. Doing so risks burns and electric shock.



1. **Development unit (Fifth Station)**
2. **Fuser unit**
3. **Development unit (Yellow, Magenta, Cyan, and Black)**
4. **Cleaning unit for intermediate transfer belt (ITB cleaning unit)**
5. **Paper transfer unit**

About the Display for Options

This machine displays all of the adjustment items in the Adjustment Settings for Skilled Operators menu and advanced settings for custom paper regardless of whether or not the items are for options. Note that any modifications to the option settings do not take effect unless the applicable options are installed on this machine.

Note

- For details about the options available for this machine, see "Guide to Functions of the Machine's Options", About This Machine.

Before You Change a Setting

Important

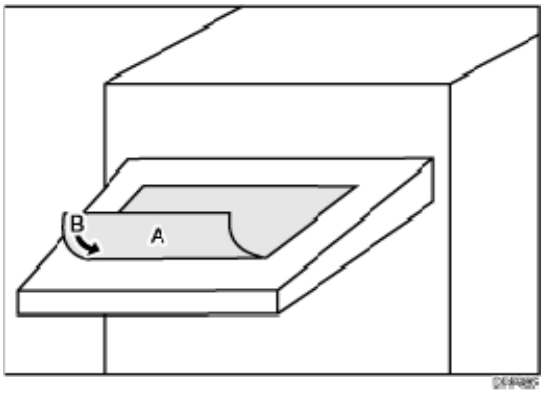
- If the problem persists despite the setting being changed, restore the value you made a note of.
- Operating the machine with the changed setting may cause problems such as reduced print quality.
- If the problem persists even though the setting has been changed, restore the value noted. Operating the machine with the changed setting may cause problems, such as inferior printed images.

About Printing Surfaces

Side 1 is the surface of the paper printed during one-sided printing, or the surface of the first print during duplex printing.

Side 2 is the surface of the paper printed after side 1 has been printed during duplex printing.

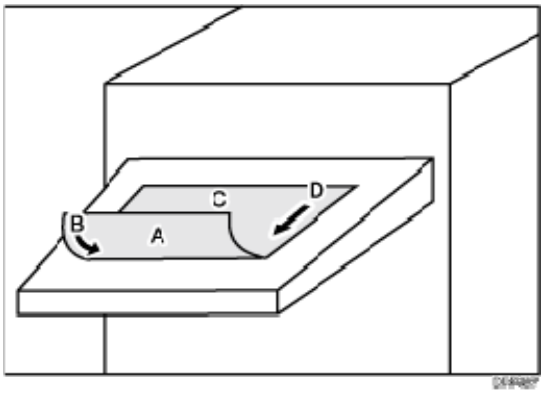
Single-sided printing: Printed side face down



A. Side 1

B. Paper feed direction of Side 1

Duplex printing: Printed side face down



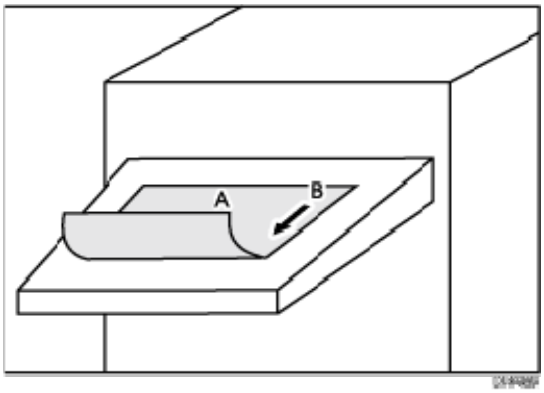
A. Side 1

B. Paper feed direction of Side 1

C. Side 2

D. Paper feed direction of Side 2

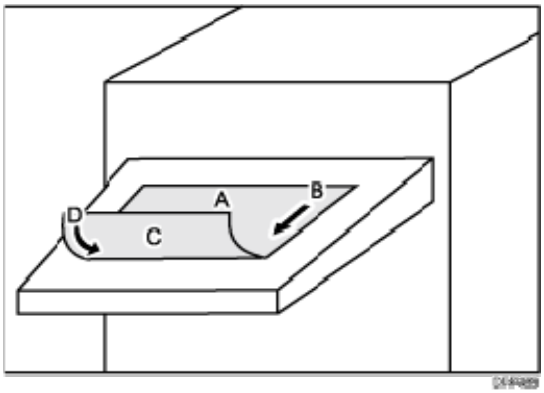
Single-sided printing: Printed side face up



A. Side 1

B. Paper feed direction of Side 1

Duplex printing: Printed side face up



A. Side 1

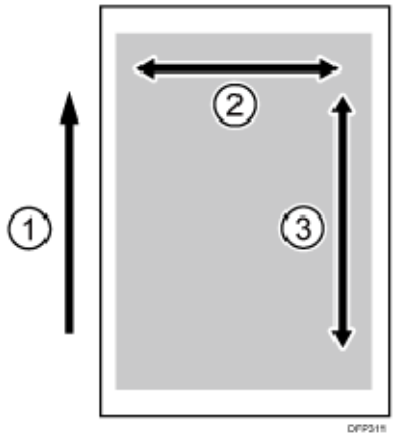
B. Paper feed direction of Side 1

C. Side 2

D. Paper feed direction of Side 2

Note about Vertical and Horizontal Directions

In this manual, with regard to the paper feed direction, the vertical and horizontal directions are as shown below:



1. **Paper feed direction**
2. **Horizontal**
3. **Vertical**

Troubleshooting Service Call Problems (SC Codes)

What Are SC Codes?

If an error occurs during operation, the machine displays an SC code ("SCnnn", where "nnn" is a three-digit number). The machine stops and cannot be used when an SC code is displayed.

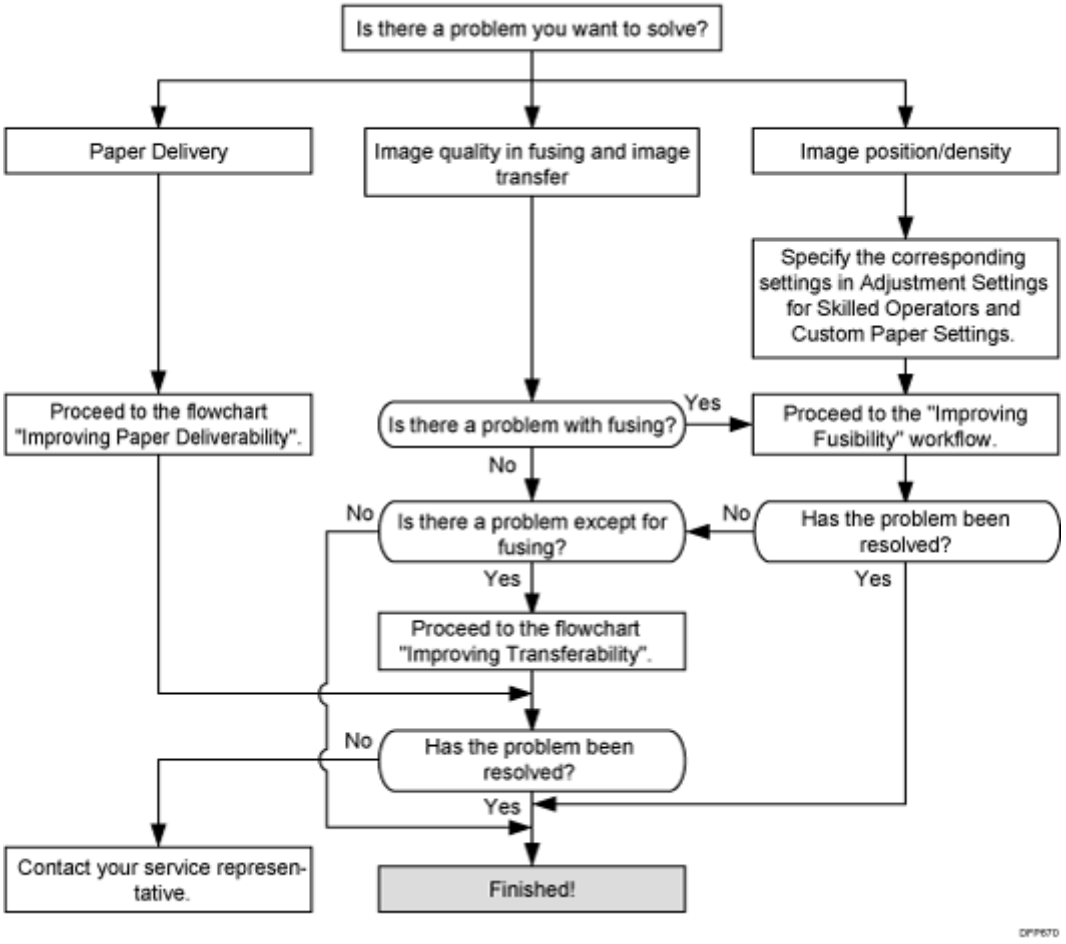
If an SC Code Appears:

1. **Write down the SC number.**
2. **Turn off the main power switch.**
3. **Wait a few moments, then turn the machine on again.**
   In most cases, cycling the machine off and on will restore it to full operation.
4. **If the SC code reappears, contact your service representative.**

Specifying and Checking Paper Settings

Adjusting Paper Settings

Paper Setting Flowchart



Improving Fusibility

This section explains how to resolve the problem of insufficient toner fusing on printed copies.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

Carry out the following sequence of procedures. Terminate the sequence as soon as the problem is resolved.

Procedure 1: Changing the fusing temperature

1. **In [Advanced Settings] for the custom paper you are using, adjust the fusing heat roller temperature.**

   <Printing in full color/Printing in full color including the clear toner while the special color is not set to high quality>

   Increase the value in 085: [Fusing Heat Roller Temp. Adjust.: Prod.] by 5°C.

   <Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

   Increase the value in 086: [Fusing Heat Roller Temp. Adjust.: Qual.] by 5°C.

2. **Print the image and check toner fusion. Has the problem been resolved?**

Yes	Finished!
No	Increase the temperature an additional 5°C.

3. **Repeat Step 2.**

   If the problem persists even if you increase the temperature to 190°C, perform Procedure 2,"Image processing 1".

Procedure 2: Changing the process speed

This will slow down the printing to give the toner more time to fuse. However, because of this, throughput will be reduced.

For details about "Process Speed Setting", see "Details of Menu Items in Advanced Settings", Adjustment Item Menu Guide.

1. **In [Advanced Settings] for the custom paper you are using, slow down the machine's operating speed.**

   <Printing in full color/Printing in full color including the clear toner while the special color is not set to high quality>

   Decrease the value in 127: [Process Speed Setting: Productivity] by one step.

   If the present value is [High], select [Middle]. If it is [Middle], select [Low].

   <Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

   Decrease the value in 128: [Process Speed Setting: Quality] by one step.

   If the present value is [High], select [Middle]. If it is [Middle], select [Low].

2. **Print the image and check toner fusion. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

3. **Is the process speed set to [Middle]?**

Yes	Set the process setting to [Low].
No	If the problem persists, contact your service representative.

4. **Print the image and check toner fusion. Has the problem been resolved?**

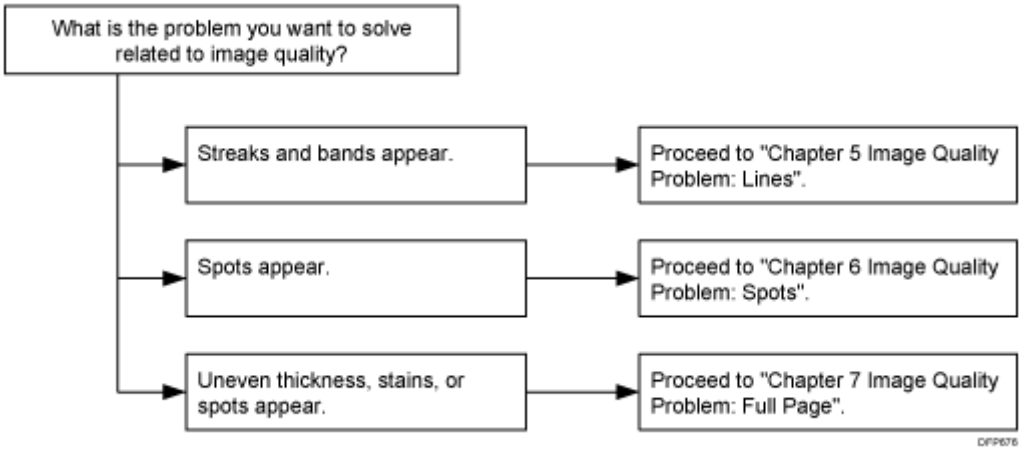
Yes	Finished!
No	If the problem persists, contact your service representative.

Note

- Changing the fusing temperature or changing the process speed may produce one or more of the following side effects:
  - Paper curling
  - Paper misfeeding
  - Blisters
  - Glossy lines
  - Change of gloss
- If one or more of the above side effects occurs, adjust the fusing temperature and process speed by decreasing the fusing temperature and increasing the process speed.
- After performing the solution, it is recommended to perform the color calibration of the external controller.
- Check the toner fusibility as follows:
  - The printed image does not come off.
  - The toner does not come off even if it is lightly rubbed by a nail.
  - The toner does not come off even if it is rubbed by the cloth for cleaning the contact glass.

Improving Transferability

To improve transferability, try the following solution:



Improving Paper Deliverability

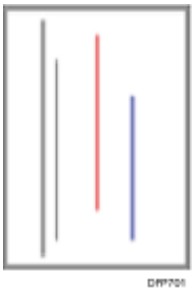
To improve paper deliverability, see page 141 "Troubleshooting Paper Delivery Problems".

Troubleshooting Image Quality Problems

Image Index

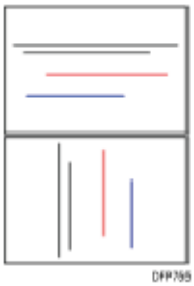
Large Classification: Lines/Streaks

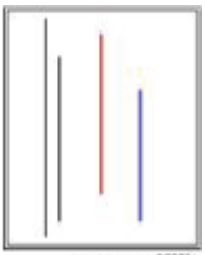
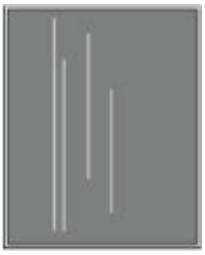
Line/streaks thinner than 1mm in width that appear either as a result of contamination or incomplete toner transfer.

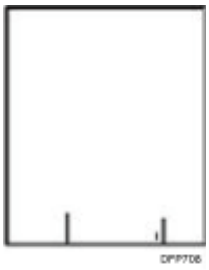


Middle classification: Lines/Streaks

A smudge or a white area inside an image, in a linear shape with 1mm or smaller width.



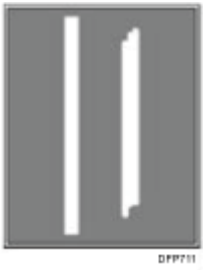
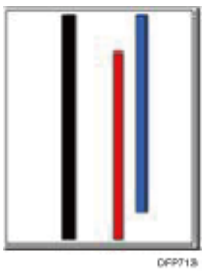
Small classification	Sample image	Description
Vertical black (color) streaks Black (color) streaks appearing in the paper feed direction.		▪ See page 42 "Vertical Black Streaks". ▪ See page 43 "Vertical Black (color) Streaks (1)". ▪ See page 45 "Vertical Black (color) Streaks (2)". ▪ See page 46 "Vertical Black (color) Streaks (3)".
Vertical white streaks Image missing in the shape of streaks in the paper feed direction		▪ See page 46 "Vertical White Streaks (1)". ▪ See page 48 "Vertical White Streaks (2)".
Horizontal black (color) streaks Black (color) streaks appearing in the direction perpendicular to the paper feed direction.		▪ See page 38 "Horizontal Black Streaks (Image Edge)".
Horizontal white streaks Image missing in the shape of streaks in the direction perpendicular to the paper feed direction.		▪ See page 39 "Horizontal White Streaks". ▪ See page 49 "Glossy Lines at the Edge of the Paper".
Vertical glossy streaks Glossy streaks appearing in the paper feed direction.		▪ See page 50 "Vertical Gloss Streaks".

Small classification	Sample image	Description
Horizontal white streaks Glossy streaks appearing in the direction perpendicular to the paper feed direction.		▪ See page 40 "Whiter at the Trailing Edge".
Image scratches Stains in the shape of vertical streaks which seem to result from being scratched by the guide plate ribs or other parts.		

Middle classification: Bands

A smudge or a white area inside an image, in a linear shape with 1mm or larger width.

Small classification	Sample image	Description
Jitter Blurred area visible as bands in the direction perpendicular to the paper feed direction		

Small classification	Sample image	Description
Banding Banding at regular intervals in the direction perpendicular to the paper feed direction. (Gear eyes: Color unevenness in the same interval as the pitch of the gear.)		
Vertical white bands White bands appearing in the paper feed direction.		▪ See page 55 "Banding: General". ▪ See page 54 "Vertical White Bands".
Horizontal white bands White bands appearing in the direction perpendicular to the paper feed direction.		▪ See page 57 "Banding: 63 mm (2.4 inches) Intervals". ▪ See page 59 "Banding: 189 mm (7.5 inches) Intervals".
Vertical black (color) bands Black (color) bands appearing in the paper feed direction.		
Horizontal black (color) bands Black (color) bands appearing in the direction perpendicular to the paper feed direction.		

Small classification	Sample image	Description
Fuzzy lines Blurred images in the shape of slightly winding bands in the paper feed direction.		
Roller tracks Stains on the transport rollers transferred to paper.		

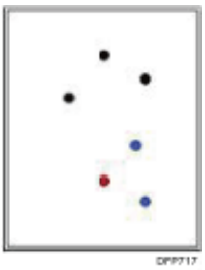
Large classification: Spots

An image quality problem either exhibiting white spots on solid areas, or black spots on the background.

White spots and Fireflies are considered different issues as the former does not consist a core in the center of the unprinted spot.

Middle classification: Spot

White spots seen in solid image areas or black/color spots seen where there should be nothing printed. The description "white spots" excludes those with toner cores.

Small classification	Sample image	Description
Black (color) spots Stains are visible as crisp black (color) spots.		▪ See page 60 "Black (color) Spots (1)". ▪ See page 63 "Black (color) Spots (2)".
White spots White spots are visible inside solid image or halftone image area because of missing toner.		▪ See page 65 "White Spots/Toner Blasting". ▪ See page 68 "Blister-like White Spots".
Spots with toner Toner aggregated inside the machine has been transferred to paper.		▪ See page 123 "Toner Scattering: Lines". ▪ See page 125 "Toner Scattering: Trailing Edge". ▪ See page 128 "Toner Scattering: Around a Solid Fill Image".

Small classification	Sample image	Description
White spots with toner cores White spots with pieces of aggregated toner in the center visible in solid color area. Pieces of aggregated toner may be irremovable.		
Fish-shape stains Stains in the shape of small fish which appear to be swimming in the paper feed direction.		▪ See page 71 "Medaka (White Spots)".

Large classification: Full page

Images and text missing from the whole sheet.

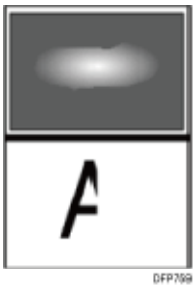
Middle classification: Full page

Image/text does not appear on the printout.

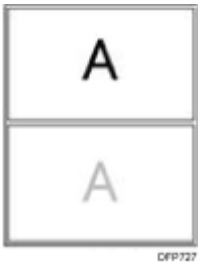
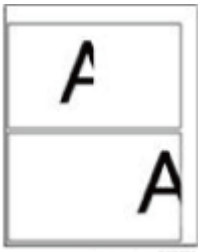
Small classification	Sample image	Description
All black Copied paper is all black.		
Blank No image is reproduced.		

Middle classification: Unprinted

Parts of the developed images and letters are not reproduced.

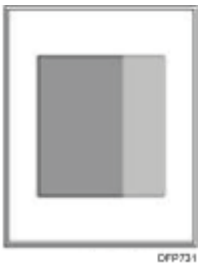


Small classification	Sample image	Description
White zone Part of a solid image or halftone is missing.		▪ See page 72 "Patch Unprinted Image". ▪ See page 75 "Fainter Leading Edge". ▪ See page 78 "Fainter Trailing Edge". ▪ See page 81 "Unprinted: When Using a Transparent Film". ▪ See page 82 "Unprinted: Around Clear-toner Images".
Wormholes The outline of a letter (or a line) is reproduced but the inside of it is missing.		▪ See page 84 "Worm Holes: Text or Edge of an Image". ▪ See page 86 "Worm Holes: When Using the Clear Toner".
Halo There is a white line around a solid object.		
Negative residual image Previously copied image is reproduced with its black and white reversed on the same page or the next page.		▪ See page 106 "Residual Image: Negative Ghost". ▪ See page 111 "Residual Gloss (Gloss Ghost): Multiple".

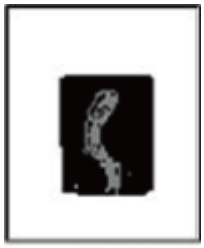
Small classification	Sample image	Description
Positive residual image Previously copied image is reproduced on the same page or the next page.		
Offset The same image is repeatedly transferred in the same interval.		
Missing image Developed image slid in the subscan direction or missing.		

Middle classification: Unevenness

The density of the developed image is uneven.

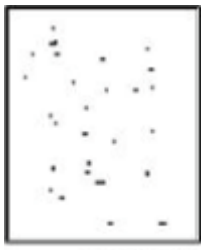
Small classification	Sample image	Description
High density Image density higher than configured.		
Low density Image density lower than configured.		▪ See page 90 "Low Image Density of Black Area".
Uneven density Image density is uneven within the same page.		▪ See page 91 "Uneven Density: 189 mm (7.5 inches) Pitch". ▪ See page 92 "Uneven Density within 90 mm (3.5 inches) of the Trailing Edge". ▪ See page 93 "Uneven Density (Textured Paper)".
Unevenness in indefinite shape Image density unevenness in indefinite shapes.		

Small classification	Sample image	Description
Uneven glossiness The glossiness is uneven inside a dark solid image. Check it by looking at the paper from different angles.		▪ See page 108 "Uneven Gloss". ▪ See page 111 "Residual Gloss (Gloss Ghost): Multiple". ▪ See page 112 "Uneven Gloss: Partly". ▪ See page 113 "Uneven Gloss: Wavy". ▪ See page 115 "Uneven Gloss: Side 2". ▪ See page 118 "Uneven Gloss: Thick Paper".
Color changing During repeated printing, the color or the density changes from sheet to sheet.		
Color difference The colors differ between the original (1) and the output (2).		
Rough image Color is uneven and small white spots are visible inside a solid image. With color copiers, white spots may not appear when two colors are overlapped.		▪ See page 96 "Mottling".

Small classification	Sample image	Description
Earthworm shape White area in a shape similar to an earthworm.		▪ See page 102 "Worm Track".
Moire When superimposed regular pattern, it is a pattern of striped periodic possible by pixel to interfere with each other. Halftones may become mosaics.		
Blur Image seemingly blurred in all directions.		▪ See page 105 "Blurred Image: Around a Clear Image".

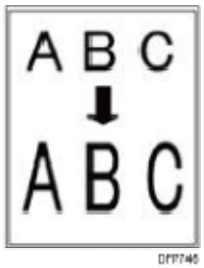
Middle classification: Dirtied printouts

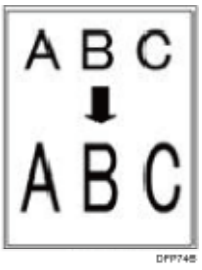
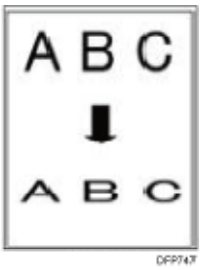
Non-image area is dirtied.

Small classification	Sample image	Description
Background stains Granular stains are visible in unprinted areas of the paper.		
Backside stains Granular stains are visible on the backside of the paper.		▪ See page 122 "Dirty Background".
Toner scattered Toner scattered around a letter.		▪ See page 123 "Toner Scattering: Lines". ▪ See page 125 "Toner Scattering: Trailing Edge". ▪ See page 128 "Toner Scattering: Around a Solid Fill Image".
Edge stains The side edges of paper are stained.		▪ See page 128 "Stained Paper Edges". ▪ See page 129 "Stained Paper Edges (1)". ▪ See page 129 "Stained Paper Edges (2)". ▪ See page 130 "Stained Paper Edges (3)". ▪ See page 131 "Stained Paper Edges (4)". ▪ See page 131 "Stained Paper Edges (5)".

Middle classification: Disturbed image

Image/text are disturbed and do not replicate the original.



Small classification	Sample image	Description
Irregularity Image becoming irregular in comparison with the original.		
Image expansion Image expanded abnormally in comparison with the original.		▪ See page 133 "Stretched Image".
Image contraction Image contracted abnormally in comparison with the original		▪ See page 134 "Shrunken Image".

Small classification	Sample image	Description
Skew The corners of an image copied from a rectangle original are not square.		▪ See page 135 "Image Skew".

Middle classification: Scratches

Stains in the shape of vertical streaks which seem to result from being scratched by the guide plate ribs or other parts.

Small classification	Sample image	Description
Claw marks Stains of toner that got on the paper when it came into contact with drum/fuser pawls.		

Middle classification: Shifted image

Registration shift causes the images to appear longer or wider than the original.

Small classification	Sample image	Description
Vertical image shift Images and lines shifted in the paper feed direction.		
Horizontal image shift Images and lines shifted in the direction perpendicular to the paper feed direction.		
Vertical color shift Color shifted in the paper feed direction where colors should be overlaid.		
Horizontal color shift Color shifted in the direction perpendicular to the paper feed direction where colors should be overlaid.		

Others

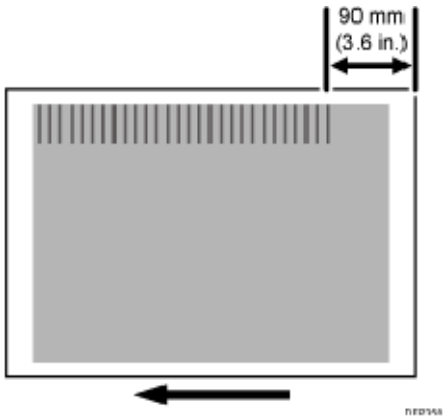
- For details see, page 136 "Insufficient Gloss: Clear Image".
- For details see, page 137 "Milky Transparency".

Image Quality Problem: Lines

Streaks

Horizontal Black Streaks (Image Edge)

The horizontal column density fluctuates at 11 mm (0.4 inches) intervals on the right edge perpendicular to the paper feed direction. This fluctuation does not occur in the area that is 90 mm (3.6 inches) or less from the trailing edge.



Cause:

The speed of the transfer timing roller is less than that of paper transfer.

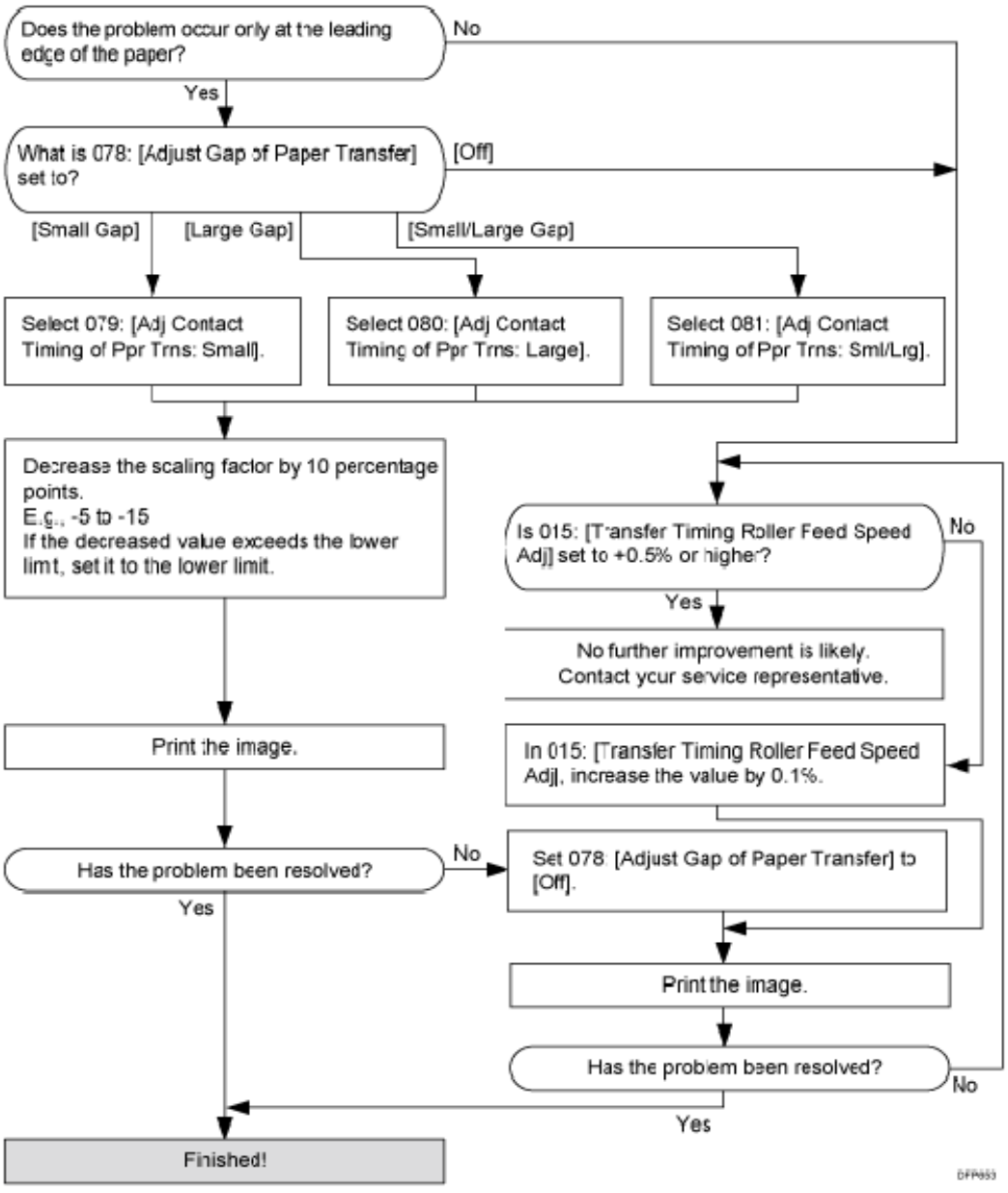
This may occur if:

- Printing is done at low temperature or humidity
- Halftone images are printed

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

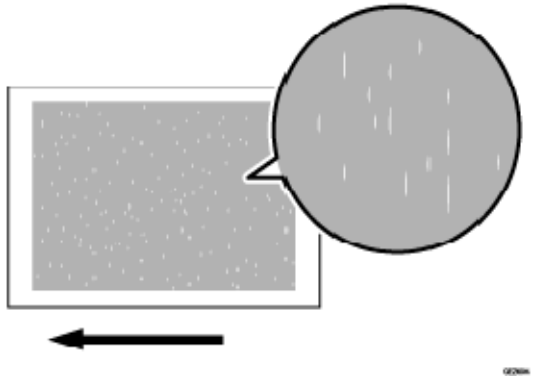


Note

- Increasing the speed of the transfer timing roller may lead to a change in density in the area that is 90 mm (3.6 inches) or less from the trailing edge.

Horizontal White Streaks

White streaks of 1 to 8 mm (0.04 to 0.3 inches) long and perpendicular to the paper feed direction appear.



Cause:

One of the charge rollers is stained.

Solution:

1. **To identify the affected color, print three full-page, solid-fill A3 or DLT sheets for each of white and black, and three full-page, halftone A3 or DLT sheets for each of cyan, magenta, and yellow.**
2. **Detach the charge unit of the affected color and wipe the charge roller with a dry rag to remove the stain.**
3. **Print the image. Has the problem been resolved?**

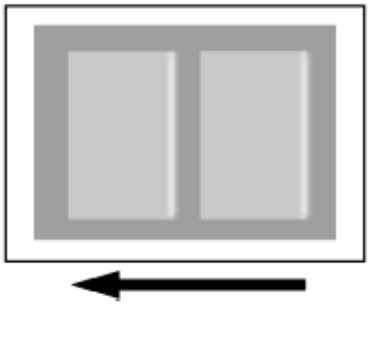
Yes	Finished!
No	Replace the charge unit.

Note

- If white streaks appear at 189 or 40 mm (7.5 or 1.6 inches) intervals, carry out the procedure in see page 60 "Black (color) Spots (1)".
- After performing the solution, it is recommended to perform the color calibration of the external controller.
- Do not use ethanol or any other organic solvent to clean the charge roller. Otherwise it may cause damage to the charge roller.

Whiter at the Trailing Edge

When using the white toner, the trailing edge of the image turns whiter than other areas.



Cause:

This may occur if:

- When printing an image overlaying the white toner with the cyan, magenta, yellow, or black toner
- When using transparent paper
- When the cyan, magenta, yellow, or black toner overlaying with the white toner is thick
- When the cyan, magenta, yellow, or black toner is used at the trailing edge of an image using the white toner

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

1. **In [Advanced Settings] for the custom paper you are using, decrease the value in 021: [Adjust Toner Adhesion (Special)] by 1.**
2. **Print the image. Has the problem been resolved?**

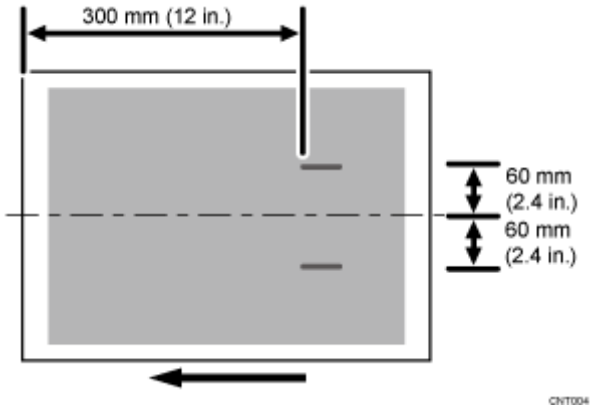
Yes	Finished!
No	Repeat Steps 1 to 2. If the problem persists even though you have increased the value to -5, contact your service representative.

Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.

Vertical Black Streaks

Short black streaks appear on a black halftone image.



Cause:

A sheet is bent at the entrance to the fusing unit and comes into contact with the edge of the paper delivery tank, where static electricity builds up on the sheet through friction. This causes scattering of unfixed toner on the paper surface.

This may occur if:

- Printing is done at low temperature or humidity
- The thickness of the paper is equivalent to Paper Weight 2 or lower
- Halftone images are printed in black and white

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

1. **In [Advanced Settings] for the custom paper you are using, select 104: [Fusing Feed Speed Adjustment].**
2. **Check the present value. Is it higher than +2.5%?**

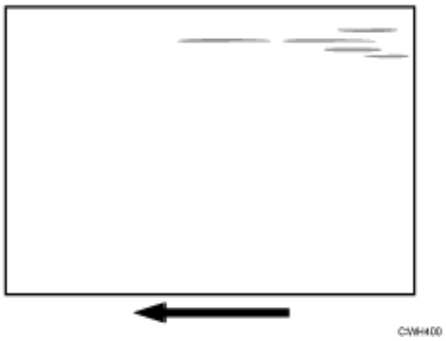
Yes	No further improvement is likely. Contact your service representative.
No	Increase the value by 0.5 percentage points.

3. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Steps 1 to 3. If the problem persists even though you have increased the value to +2.5 percentage points, contact your service representative.

Vertical Black (color) Streaks (1)

Black (color) streaks parallel to the paper feed direction appear.



Cause:

This may occur if:

- The charge roller is stained.
- The PCU cleaning unit has worn out.
- The drum surface is scratched.
- If the rollers, ribs, or tabs in the paper path are stained with toner

Solution:

(a) If the problem affects multiple colors

1. **Clean the rollers and ribs in the paper path.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

3. **Do streaks appear on the front of the paper?**

Yes	Replace the ITB Cleaning Unit.
No	Replace the paper transfer unit.

4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Proceed to the solutions in page 45 "Vertical Black (color) Streaks (2)".

(b) If the affected color is single color

1. **To identify the affected color, print three full-page, solid-fill A3 or DLT sheets for each of white and black, and three full-page, halftone A3 or DLT sheets for each of cyan, magenta, and yellow.**
2. **Detach the charge unit of the affected color and check its surface. Is the surface stained?**

Yes	Wipe the charge roller with a dry rag to remove the stain. If the stain cannot be removed, replace the charge unit. Go to the next step.
No	Go to the next step.

3. **Detach the photoconductor unit of the affected color and check the drum surface. Is the surface stained or scratched?**

Stained	Replace the PCU cleaning unit.
Scratched	Replace the photoconductor unit.
Not stained or scratched	Contact your service representative.

4. **If the problem persists even though you have replaced the PCU cleaning unit or photoconductor unit, contact your service representative.**

Note

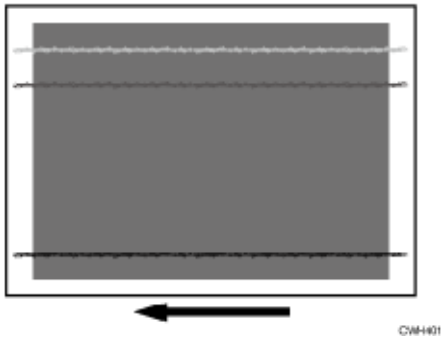
- For details about replacing the charger unit, PCU cleaning unit and photoconductor

unit, see Replacement Guide.

- After replacing parts, it is recommended to perform the color calibration of the external controller.

Vertical Black (color) Streaks (2)

Extended, blurred black (color) streaks parallel to the paper feed direction appear. The streaks also appear randomly in the margins.



Cause:

If the temperature or humidity is low, remaining toner might be missed by the cleaning blade of the ITB cleaning unit or paper transfer unit, causing streaks to appear sporadically.

Solution:

1. **To identify the affected color, print three full-page, solid-fill A3 or DLT sheets for each of cyan, yellow, magenta, and black.**
2. **Check whether the problem occurs at the front or back of the paper.**

   <If the problem affects single color at the front of the paper>

   Proceed to the solutions in page 43 "Vertical Black (color) Streaks (1)".

   <If the problem affects multiple colors at the front of the paper>

   If the problem persists even if you replace the ITB cleaning unit, contact your service representative.

   <If the problem occurs at the back of the paper>

   Replace the paper transfer unit. If the problem persists, contact your service representative.

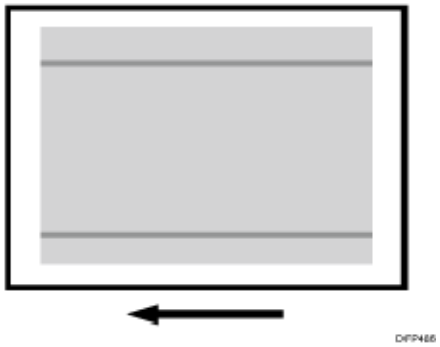
Note

- For details about replacing the paper transfer unit or ITB cleaning unit, see Replacement Guide.
- After performing the solution, it is recommended to perform the color calibration of

the external controller.

Vertical Black (color) Streaks (3)

A streak appears in parallel to the paper feed direction. This may occur on half-tone images.



Cause:

There is a trace (streak) of the paper edge on the fusing belt.

Solution:

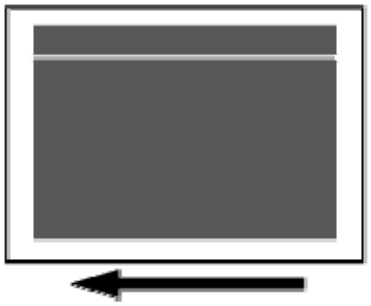
1. **In the [Machine: Maintenance] group on the [Adjustment Settings for Skilled Operators] menu, execute 0506: [Smooth Fusing Belt].**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Steps 1 to 2. If the problem persists, contact your service representative.

Vertical White Streaks (1)

A white streak appears from the leading edge to trailing edge of the paper in parallel to the paper feed direction.

Image Quality Problem: Lines



Cause:

The photoconductor unit is stained.

Solution:

1. **To identify the affected color, print three full-page, solid-fill A3 or DLT sheets for each of cyan, magenta, black, and green and three full-page, halftone A3 or DLT sheets for each of cyan, magenta, and yellow.**
   Because it is difficult to identify white spots on yellow, green is used instead of yellow.
2. **Detach the photoconductor unit of the affected color and check the drum surface. Is the surface stained?**

Yes	Wipe the photoconductor unit with a dry rag to remove the stain. In the [Machine: Maintenance] group on the [Adjustment Settings for Skilled Operators] menu, execute 0501: [Execute Cleaning Initial Setting for PCU].
No	Replace the photoconductor unit.

3. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Replaced the PCU cleaning unit and the photoconductor unit.

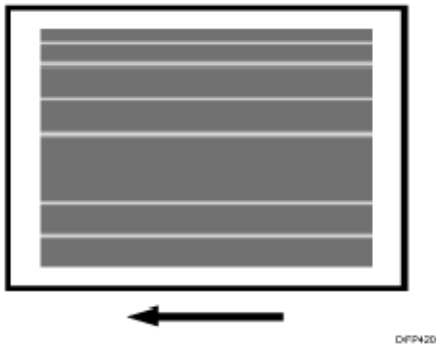
4. **If the problem persists, contact your service representative.**

Note

- For details about replacing the photoconductor unit, see Replacement Guide.

Vertical White Streaks (2)

A white streak appears in parallel to the paper feed direction.



Cause:

There is a trace remaining after polishing the fusing belt by the fusing belt smoothing roller. This may occur when using paper with paper weight 7 to 8.

Solution:

1. **Configure the following settings in [Advanced Settings] for the custom paper you are using.**

   <Printing in full color/Printing in full color including the clear toner while the special color is not set to high quality>

   Select 085: [Fusing Heat Roller Temp. Adjust.: Prod.] and increase the temperature by 5°C.

   <Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

   Select 086: [Fusing Heat Roller Temp. Adjust.: Qual.] and increase the temperature by 5°C.

2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

3. **In [Advanced Settings] for the custom paper you are using, slow down the process speed.**

   If the present value is [High], select [Middle]. If it is [Middle], select [Low].

<Printing in full color/Printing in full color including the clear toner while the special color is not set to high quality>

Select 127: [Process Speed Setting: Productivity].

<Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

Select 128: [Process Speed Setting: Quality].

4. **Decrease the fusing heat roller temperature, depending on the value in "Process Speed Setting".**

[Middle]	Decrease the value in 085: [Fusing Heat Roller Temp. Adjust.: Prod.] or 086: [Fusing Heat Roller Temp. Adjust.: Qual.] by 5°C.
[Low]	Decrease the value in 085: [Fusing Heat Roller Temp. Adjust.: Prod.] or 086: [Fusing Heat Roller Temp. Adjust.: Qual.] by 10°C.

5. **Print the image. Has the problem been resolved?**

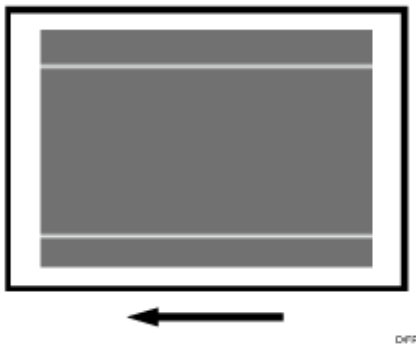
Yes	Finished!
No	Contact your service representative.

Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.

Glossy Lines at the Edge of the Paper

A glossy line appears in parallel to the paper feed direction. This may occur on solid-fill images.



Cause:

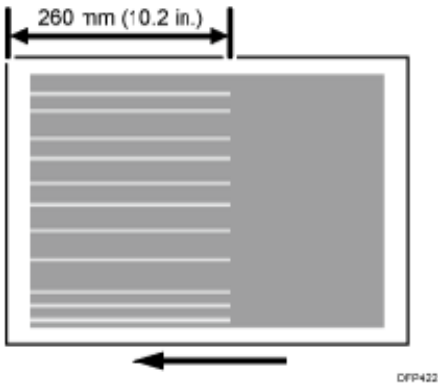
There is a trace (streak) of the paper edge on the fusing belt.

Solution:

Perform the solution in page 46 "Vertical Black (color) Streaks (3)".

Vertical Gloss Streaks

Vertical streaks appear within 260 mm (10.2 in.) from the leading edge.



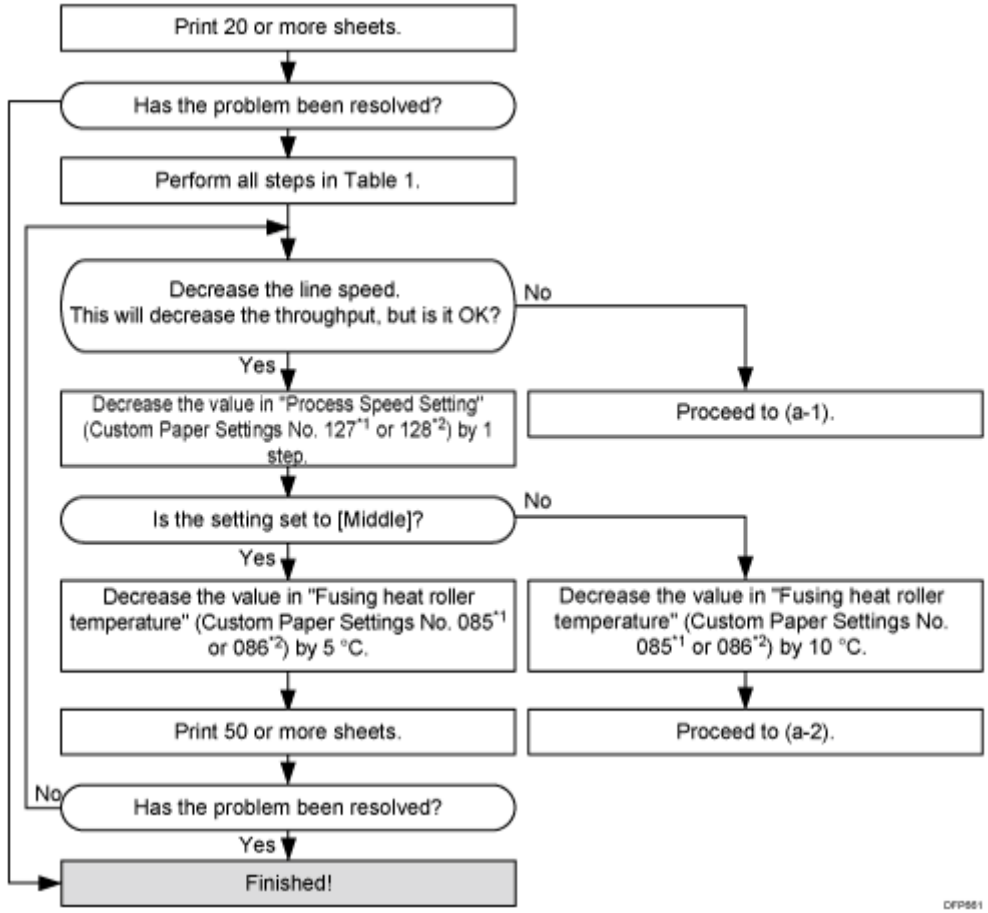
Cause:

At the fusing nip exit, the paper comes into contact with the fusing separation plate, resulting in the separation plate rubbing the solid-filled area.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:



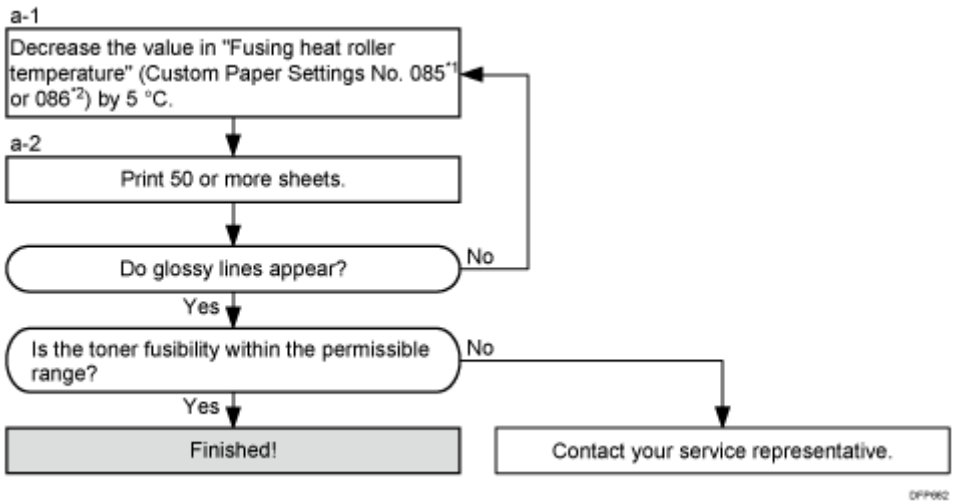


Table 1:

Settings to adjust	What to do
090: [Adj Fsng Tmp to Trnsf Ppr: Ppr: Qual] 092: [Adj Fsng Tmp to Trnsf Ppr: Ppr: Qual: S][*3]	Increase the value by 1.
093: [Adjust Adding Fusing Temperature 1] 094: [Adjst Addng Fusng Tempratre 1: Special][*3]	Set to 0 degrees.
095: [Adjust Adding Fusing Temperature 2] 096: [Adjst Addng Fusng Tempratre 2: Special][*3]	When 127: [Process Speed Setting: Productivity] or 128: [Process Speed Setting: Quality] in [Advanced Settings] for the custom paper you are using is set to [High] or [Middle], set the value to 15 degrees. When 127: [Process Speed Setting: Productivity] or 128: [Process Speed Setting: Quality] is set to [Low], set the value to 5 degrees.
131: [Rdc. Init. CPM: Low Tmp. Envir.: Prod.][*2] 132: [Rdc. Init. CPM: Low Tmp. Envir.: Qual.][*1]	Set to [Reduce Level 3].
133: [Rdc. In. CPM: N./H. Temp. Envr.: Prod.] [*2] 134: [Rdc. In. CPM: N./H. Temp. Envr.: Qual.] [*1]	Set to [Reduce Level 3].

*1: Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner

*2: Printing in full color/Printing in black and white/Printing in full color including the clear toner while the special color is not set to high quality

*3: Special color mode is available for Pro C7100X, Pro C7110X, Pro C7100SX, and Pro C7110SX.

Note

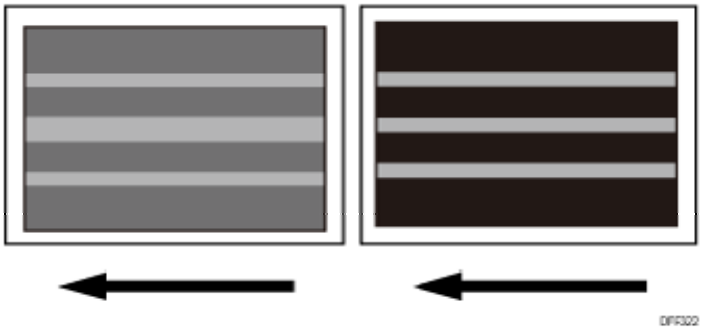
- After performing the solution, it is recommended to perform the color calibration of

the external controller.

Bands

Vertical White Bands

The vertical white streaks appear.



Cause:

When the paper is fed from the Wide LCT (2-tray LCT: RT5100), the static electricity produced by friction between the conveyer belt and paper may hamper toner adhesion on the paper, resulting in a vertical band appearing at the vacuum port position.
This may occur if:

- Synthetic paper is used
- Transparent film is used

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solutions:

Configure the following settings in [Advanced Settings] for the custom paper you are using.

<Printing in black and white>

Increase the value in 029: [Paper Transfer Current: B&W: Side 1] or 030: [Paper Transfer Current: B&W: Side 2] by -20 μA.

Eg., −100 μA to −120 μA

<Printing in full color/Printing in full color including the clear toner while the special color is not set to high quality>

Increase the value in 035: [Paper Transfer Current: FC: Side 1] or 036: [Paper Transfer

Current: FC: Side 2] by -20 μA.

Eg., −100 μA to −120 μA

<Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

Increase the value in 037: [Paper Trnsfr. Current: FC: Side 1: Qual.] or 038: [Paper Trnsfr. Current: FC: Side 2: Qual.] by -20 μA.

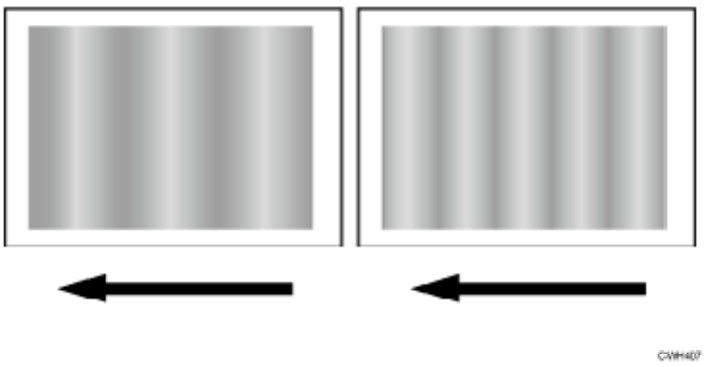
Eg., −100 μA to −120 μA

Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.

Banding: General

Density fluctuation occurs periodically in the vertical direction to the paper feed direction.



Solution:

The solution depends on the length of intervals whereby the density fluctuation occurs.

1. **In the [Machine: Maintenance] group on the [Adjustment Settings for Skilled Operators] menu, execute 0502: [Execute Process Initial Setting].**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	In the [Machine: Maintenance] group on the [Adjustment Settings for Skilled Operators] menu, execute 0515: [Execute Developer Refreshing].

3. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

4. **Print a full-page, half-tone A3 sheet for each of cyan, magenta, yellow, and black, and then measure by a ruler, etc., the intervals between the spots affected by density fluctuation.**
5. **Perform the following solution. If the applicable interval is not listed, contact your service representative.**

Interval	Affected unit	Solution
40 mm	Charge roller's pitch circle	1. Clean the charge roller. 2. In the [Machine: Maintenance] group on the [Adjustment Settings for Skilled Operators] menu, execute 0502: [Execute Process Initial Setting]. 3. In the [Machine: Image Quality] group on the [Adjustment Settings for Skilled Operators] menu, select 0201: [Adjust Image Density/ DEMS] and execute [Image Density Adjustment: Manual Execute].
50 mm/25 mm	Development roller's pitch circle	In the [Machine: Image Quality] group on the [Adjustment Settings for Skilled Operators] menu, select 0201: [Adjust Image Density/ DEMS] and execute [Image Density Adjustment: Manual Execute].
63 mm	Paper transfer roller's pitch circle	See page 57 "Banding: 63 mm (2.4 inches) Intervals".

Interval	Affected unit	Solution
189 mm	Photoconductor's pitch circle	1. In the [Machine: Image Quality] group on the [Adjustment Settings for Skilled Operators] menu, select 0201: [Adjust Image Density/ DEMS] and execute [Image Density Adjustment: Manual Execute]. 2. If the problem persists, align the photoconductor's drum shaft and drum gear. 3. If the problem persists, proceed the steps in page 59 "Banding: 189 mm (7.5 inches) Intervals".

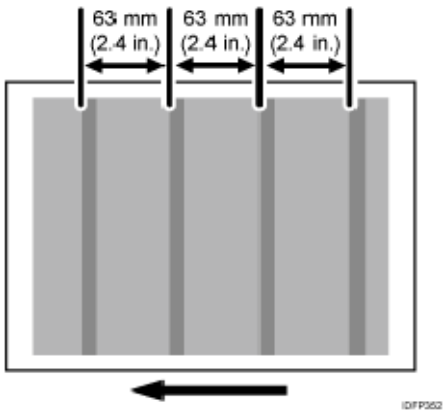
6. **If the problem persists or the applicable interval is not listed, contact the service representative.**

Note

- Do not use ethanol or any other organic solvent to clean the charge roller. Otherwise it may cause damage to the charge roller.
- After performing the solution, it is recommended to perform the color calibration of the external controller.

Banding: 63 mm (2.4 inches) Intervals

Density fluctuation occurs at intervals of 63 mm (2.4 inches).



Cause:

The speed of the transfer timing roller is higher than that of paper transfer.

This may occur if:

- Printing is done at low temperature or humidity
- Halftone images are printed

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solutions:

1. **In [Advanced Settings] for the custom paper you are using, check the present value in 016: [Paper Transfer Feed Speed Adjustment].**
2. **Is it lower than -0.5%?**

Yes	Contact your service representative.
No	In the [Machine: Maintenance] group on the [Adjustment Settings for Skilled Operators] menu, execute 0502: [Execute Process Initial Setting].

3. **Print the image. Has the problem been resolved?**

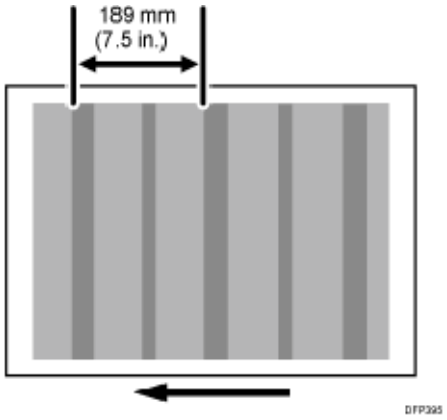
Yes	Finished!
No	Go to the next step.

4. **Decrease the value by 0.1% in 016: [Paper Transfer Feed Speed Adjustment].**
5. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Steps 4 to 5. If the problem persists even if you lower the value to -0.5, perform the solution specified in page 55 "Banding: General".

Banding: 189 mm (7.5 inches) Intervals

Density fluctuation occurs at intervals of 189 mm (7.5 inches).



Cause:

This may occur if:

- When the environment changes from high temperature or humidity to low temperature or humidity
- Halftone images are printed

Solutions:

1. **In the [Machine: Maintenance] group on the [Adjustment Settings for Skilled Operators] menu, execute 0502: [Execute Process Initial Setting].**
2. **Print the image. Has the problem been resolved?**

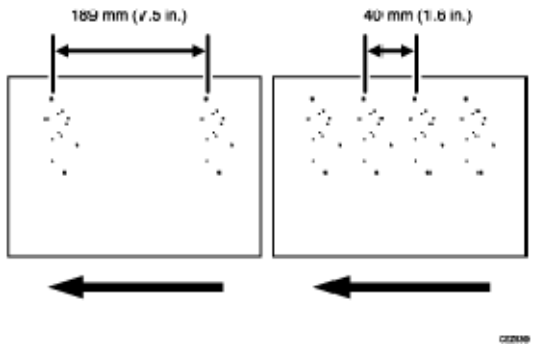
Yes	Finished!
No	Repeat Steps 1 to 2. If the problem persists even if you repeat this solution 3 times, perform the solution specified in page 55 "Banding: General".

Image Quality Problem: Spots

Spots

Black (color) Spots (1)

Colored spots appear at 189 mm or 40 mm (7.5 inches or 1.6 inches) intervals.



Cause:

(a) Colored spots appear at 189 mm (7.5 inches) intervals

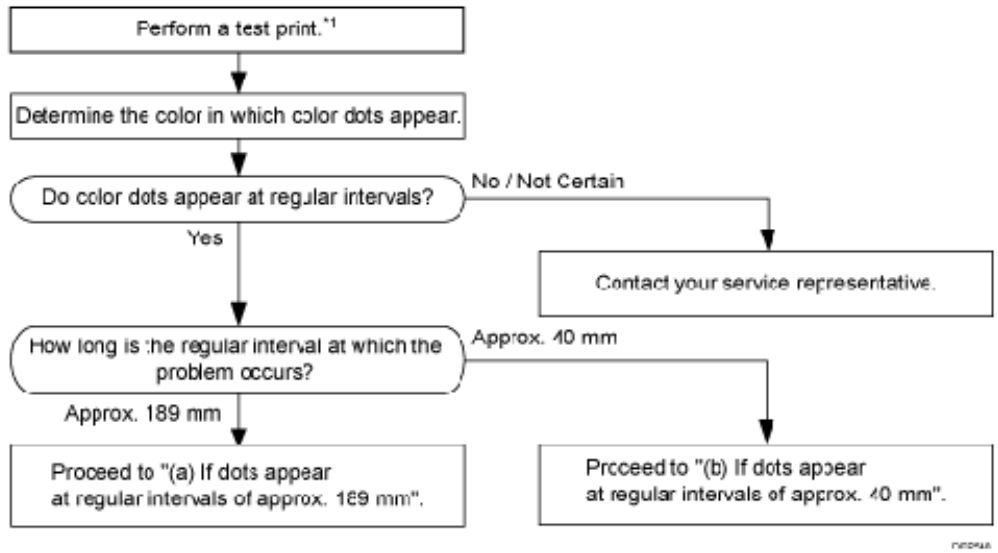
The drum is scratched or stained.

(b) Colored spots appear at 40 mm (1.6 inches) intervals

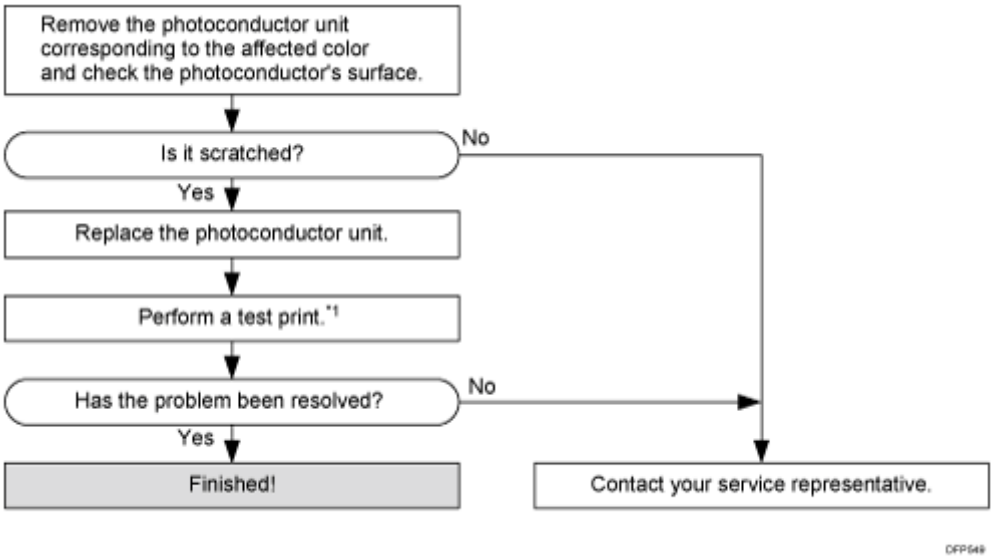
The charge roller is scratched or stained.

Solution:

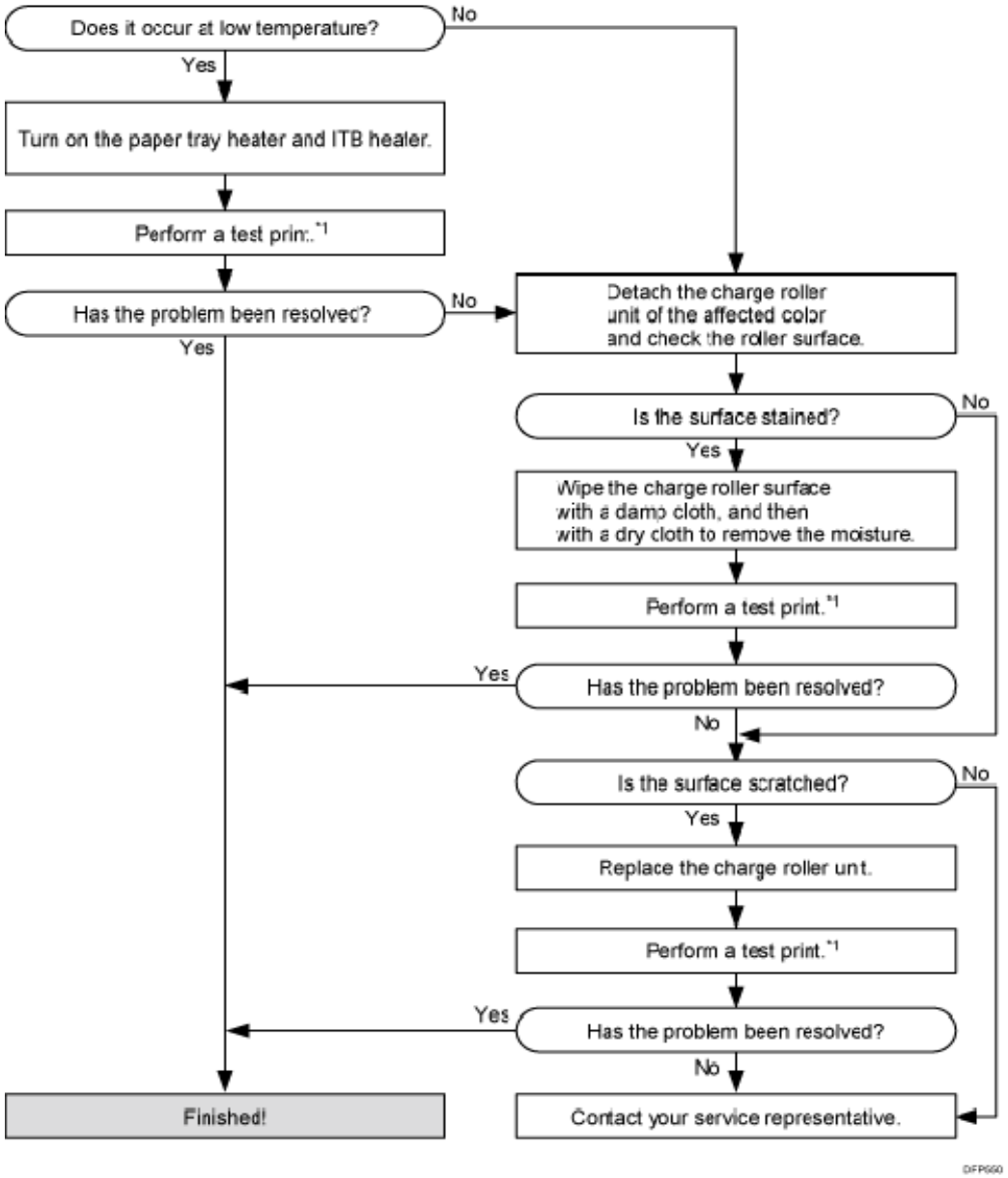
The solution depends on the interval at which the colored spots appear.



(a) Colored spots appear at 189 mm (7.5 inches) intervals



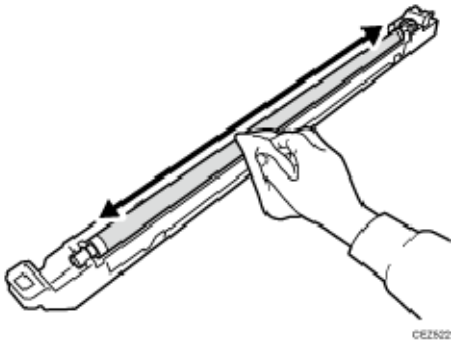
(b) Colored spots appear at 40 mm (1.6 inches) intervals



*1: Print a full-page, half-tone sheet of A3, DLT or longer paper for each of cyan, magenta, and yellow, and black.

Note

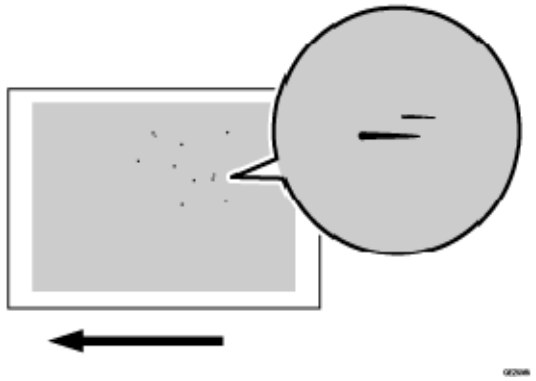
- Do not use ethanol or any other organic solvent to clean the photoconductor unit. Otherwise it may cause damage to the photoconductor unit.
- For details about replacing the photoconductor unit, see Replacement Guide.
- Do not use ethanol or any other organic solvent to clean the charge roller. Otherwise it may cause damage to the charge roller.



- For details about replacing the charge unit, see Replacement Guide.
- After performing the solution, it is recommended to perform the color calibration of the external controller.
- Depending on the country of use, the paper tray heater may not be supplied.

Black (color) Spots (2)

Paper is stained with toner spots of 0.5–1 mm (0.02–0.04 inches) in diameter.



Cause:

Toner fragments have slipped through the cleaning web.

This may occur if:

- Duplex printing
- Printing on uncoated (especially rough-textured) paper
- Halftone printing
- Printing after halftone printing
- Printing after printing on many small-size sheets

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

1. **In [Advanced Settings] for the custom paper you are using, adjust the fusing heat roller temperature.**

   <Printing in full color/Printing in full color including the clear toner while the special color is not set to high quality>

   Increase the value in 085: [Fusing Heat Roller Temp. Adjust.: Prod.] by 5°C.

   <Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

   Increase the value in 086: [Fusing Heat Roller Temp. Adjust.: Qual.] by 5°C.

2. **Print 20 sheets of the image, then another 10. Does this eliminate the problem?**

Yes	Finished!
No	Go to the next step.

3. **Increase the temperature an additional 5°C in 085: [Fusing Heat Roller Temp. Adjust.: Prod.] or 086: [Fusing Heat Roller Temp. Adjust.: Qual.].**
4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

5. **Have changes to the settings resulted in glossy lines or paper misfeed?**

Yes	Decrease the temperature by 10°C, and then go to the next step.
No	Go to the next step.

6. **In [Advanced Settings] for the custom paper you are using, adjust the cleaning web motor interval.**

   <Printing in full color/Printing in full color including the clear toner while the special color is not set to high quality>

   Set the value in 099: [Adjust Cleang. Web Mtr. Intrvl.: Prod.] to -30°C.

   <Printing in full color including the clear toner and the special color is set to high

quality/printing in full color including the white toner>

Set the value in 100: [Adjust Cleang. Web Mtr. Intrvl.: Qual.] to -30°C.

7. **Print 20 sheets of the image, then another 10. Does this eliminate the problem?**

Yes	Finished!
No	Go to the next step.

8. **Set 099: [Adjust Cleang. Web Mtr. Intrvl.: Prod.] or 100: [Adjust Cleang. Web Mtr. Intrvl.: Qual.] to -60% in [Advanced Settings] for the custom paper you are using.**
9. **Print 20 sheets of the image, then another 10. Does this eliminate the problem?**

Yes	Finished!
No	Go to the next step.

10. **Set 099: [Adjust Cleang. Web Mtr. Intrvl.: Prod.] or 100: [Adjust Cleang. Web Mtr. Intrvl.: Qual.] to -75% in [Advanced Settings] for the custom paper you are using.**
11. **If the problem persists, contact your service representative.**

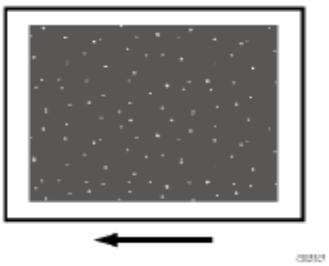
Note

- Decreasing the value in 099: [Adjust Cleang. Web Mtr. Intrvl.: Prod.] or 100: [Adjust Cleang. Web Mtr. Intrvl.: Qual.] will shorten the replacement cycle of the cleaning web.
- After performing the solution, it is recommended to perform the color calibration of the external controller.

White Spots/Toner Blasting

White Spots

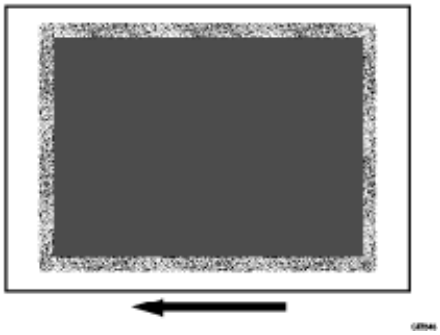
White spots of 0.2 to 0.3 mm (0.008 to 0.01 inches) in diameter appear.



Toner Blasting

Image Quality Problem: Spots

Toner is scattered around a solid-fill print.



Cause:

This may occur if:

- Printing is done at low temperature or humidity
- Paper dust on the guide board and transfer timing roller may stick to the paper and produce white spots.
- Some types of paper, such as recycled paper, roughly cut paper, and high-friction coated paper produce a lot of paper dust, which will likely stick to the paper.

Note

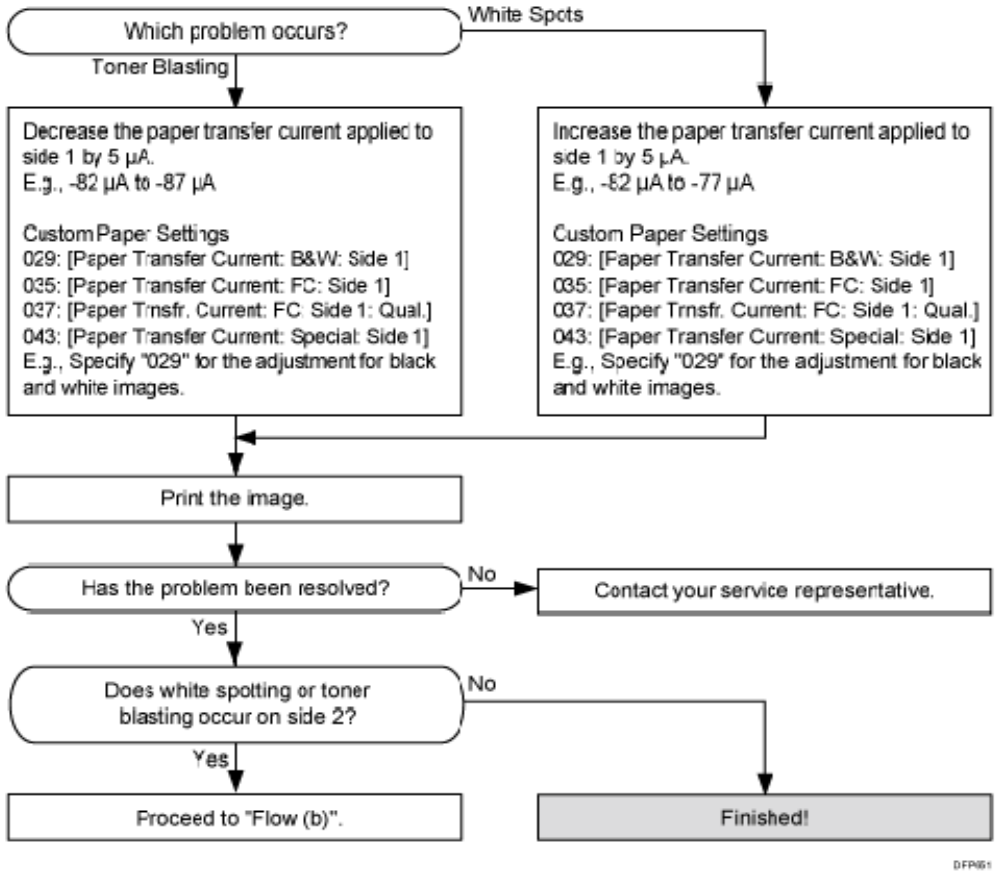
- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

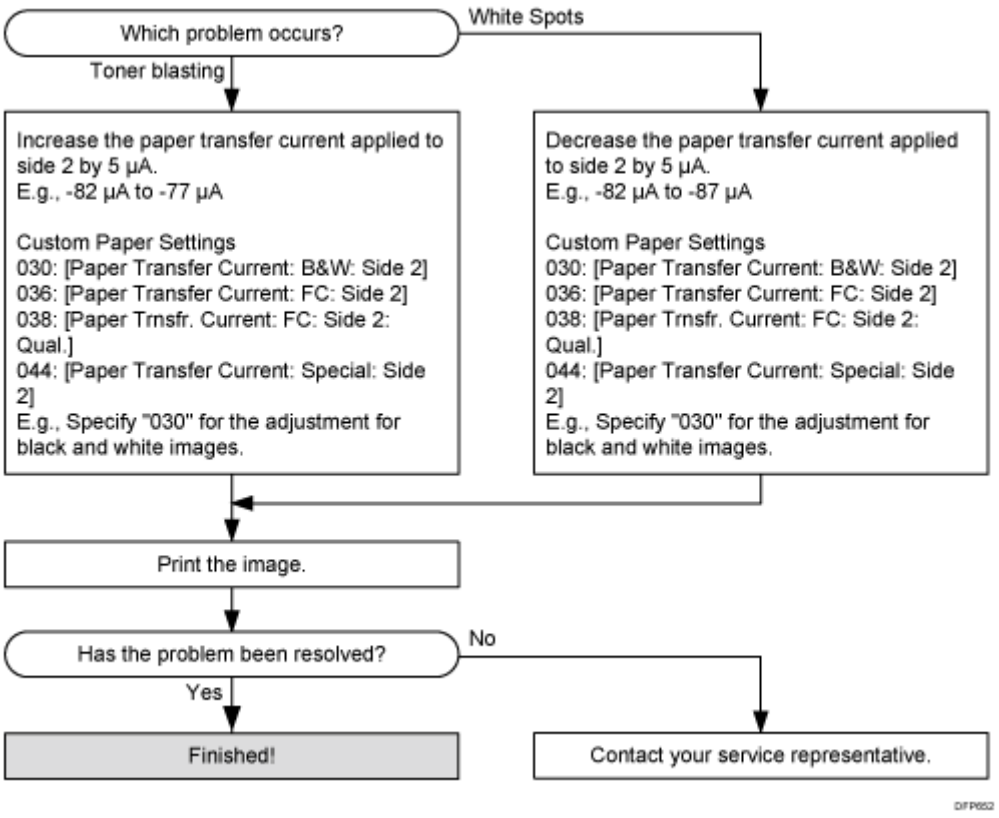
<If paper dust is stuck to the paper>

Clean the paper feed path (dust catcher, transfer timing roller, guide board, and paper feed roller) between the paper tray in use and the transfer unit's nip (where the images are transferred from the intermediate transfer belt to the paper). For details about cleaning the dust catcher, transfer timing roller, guide board, and paper feed roller), see page 169 "Cleaning the Paper Feed Path".

<a: If the problem occurs on side 1>



<b: If the problem occurs on side 2>



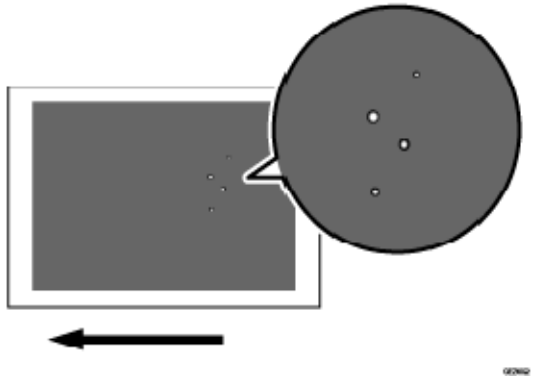
Note

- If you reduce the paper transfer current to eliminate white spots, copies may become too faint.
- After performing the solution, it is recommended to perform the color calibration of the external controller.
- The problem may be reduced by performing the solution specified in page 20 "Improving Transferability".

Blister-like White Spots

White spots 0.3–0.5 mm (0.01–0.02 inches) in diameter surrounded by denser spots (blister-like white spots) appear.

Image Quality Problem: Spots



Cause:

This may occur if a solid image is printed on coated paper, if a solid image is printed during duplex printing, or if printing is done at low temperature.

Solution:

Carry out the following sequence of procedures. Terminate the sequence as soon as the problem is resolved.

Procedure 1: Changing the fusing temperature

1. **In [Advanced Settings] for the custom paper you are using, adjust the fusing heat roller temperature.**

   <Printing in full color/Printing in full color including the clear toner while the special color is not set to high quality>

   Increase the value in 085: [Fusing Heat Roller Temp. Adjust.: Prod.] by 5°C.

   <Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

   Increase the value in 086: [Fusing Heat Roller Temp. Adjust.: Qual.] by 5°C.

2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Increase the temperature an additional 5°C.

3. **Repeat Step 2.**

   If the problem persists even if you increase the temperature to 190°C, perform Procedure 2, "Changing the process speed".

Procedure 2: Changing the process speed

This will slow down the printing to give the toner more time to fuse. However, because

of this, throughput will be reduced.

For details about adjusting process speed, see "Details of Menu Items in Advanced Settings", Adjustment Item Menu Guide.

1. **In [Advanced Settings] for the custom paper you are using, slow down the process speed.**

   <Printing in full color/Printing in full color including the clear toner while the special color is not set to high quality>

   Select 127: [Process Speed Setting: Productivity] and decrease the value by one level. If the present value is [High], select [Middle]. If it is [Middle], select [Low].

   <Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

   Select 128: [Process Speed Setting: Quality] and decrease the value by one level. If the present value is [High], select [Middle]. If it is [Middle], select [Low].

2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

3. **Is the process speed set to [Middle]?**

Yes	Set the process setting to [Low].
No	Carry out Procedure 1, “Changing the fusing temperature”. If the problem persists, contact your service representative.

4. **Print the image. Is the toner fusibility within the permissible range?**

Yes	Finished!
No	If the problem persists, contact your service representative.

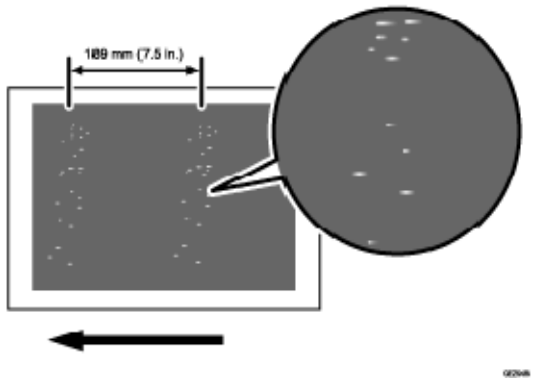
Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.

- Check the toner fusibility as follows:
  - The printed image does not come off.
  - The toner does not come off even if it is lightly rubbed by a nail.
  - The toner does not come off even if it is rubbed by the cloth for cleaning the contact glass.

Medaka (White Spots)

White dots or short lines appear, spaced at intervals of 189 mm (7.5 inches) in the direction of the paper feed.



Cause:

The photoconductor unit is stained.

Solution:

1. **To identify the affected color, print three full-page, solid-fill A3 or DLT sheets for each of cyan, magenta, black, and green, and three full-page, halftone A3 or DLT sheets for each of cyan, magenta, and yellow.**
   Because it is difficult to identify white spots on yellow, green is used instead of yellow.
2. **Detach the photoconductor unit of the affected color and check the drum surface. Is the surface stained?**

Yes	Wipe the photoconductor unit surface with a clean dry cloth to remove the stain. In the [Machine: Maintenance] group on the [Adjustment Settings for Skilled Operators] menu, execute 0501: [Execute Cleaning Initial Setting for PCU].
No	Replace the photoconductor unit.

3. Print the image. Has the problem been resolved?

Yes	Finished!
No	Replace the PCU cleaning unit and photoconductor unit.

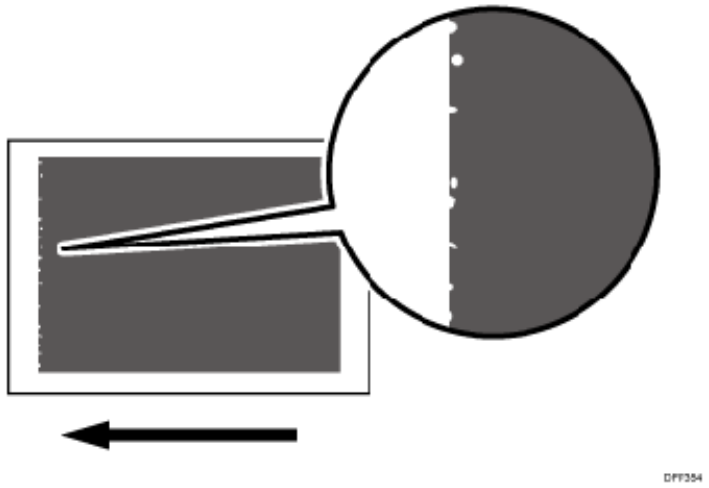
4. If the problem persists, contact your service representative.

Note

- For details about replacing the PCU cleaning unit and photoconductor unit, see Replacement Guide.

Patch Unprinted Image

Patchy white spots appear at the leading edge of the paper.



Cause:

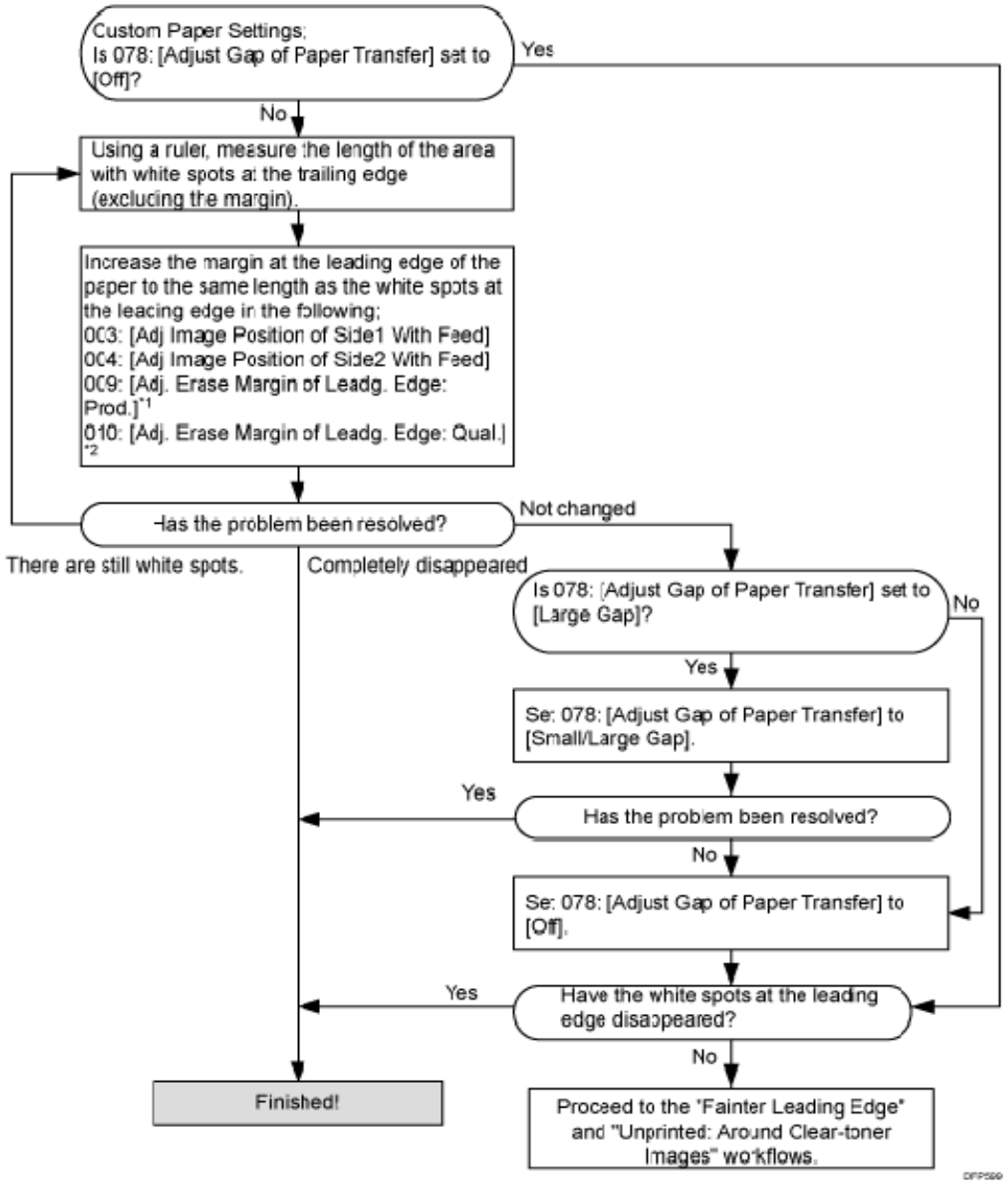
This may occur if:

- Printing is done at low temperature or humidity
- Thick paper is used

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:



*1: Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner

*2: Printing in full color/Printing in black and white/Printing in full color including the clear toner while the special color is not set to high quality

Note

- By increasing the value in 003: [Adj Image Position of Side1 With Feed] or 004: [Adj Image Position of Side2 With Feed], the image moves to the right (trailing edge). The leading edge margin increases and the trailing edge margin decreases.
- By increasing the value in 009: [Adj. Erase Margin of Leadg. Edge: Prod.] or 010:

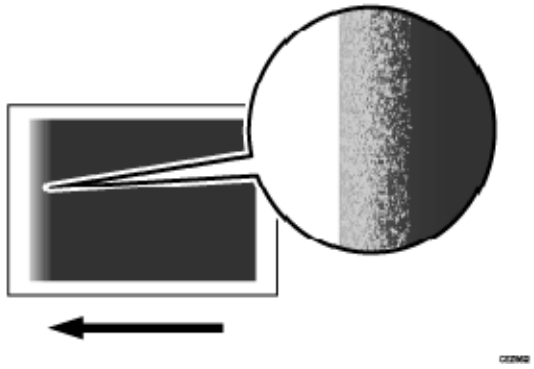
[Adj. Erase Margin of Leadg. Edge: Qual.], the selected part is masked (not printed) and the leading edge margin increases. In this case, the trailing edge margin does not change.

Image Quality Problem: Full Page

Unprinted

Fainter Leading Edge

The leading edge is fainter.



Cause:

At low temperature or when using thin coated paper, this may occur if the paper transfer current is insufficient.

At high temperature, this may occur if the paper transfer current is excessive.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

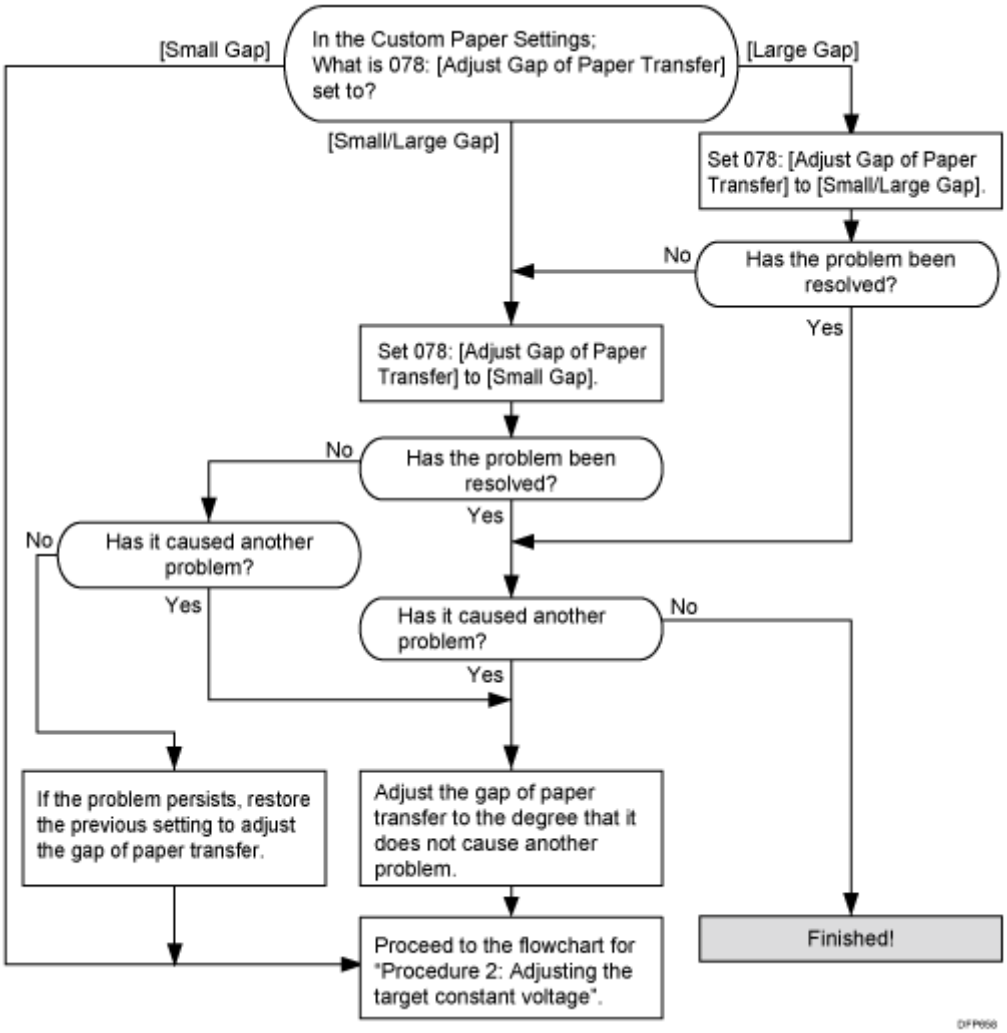
Solution:

Important

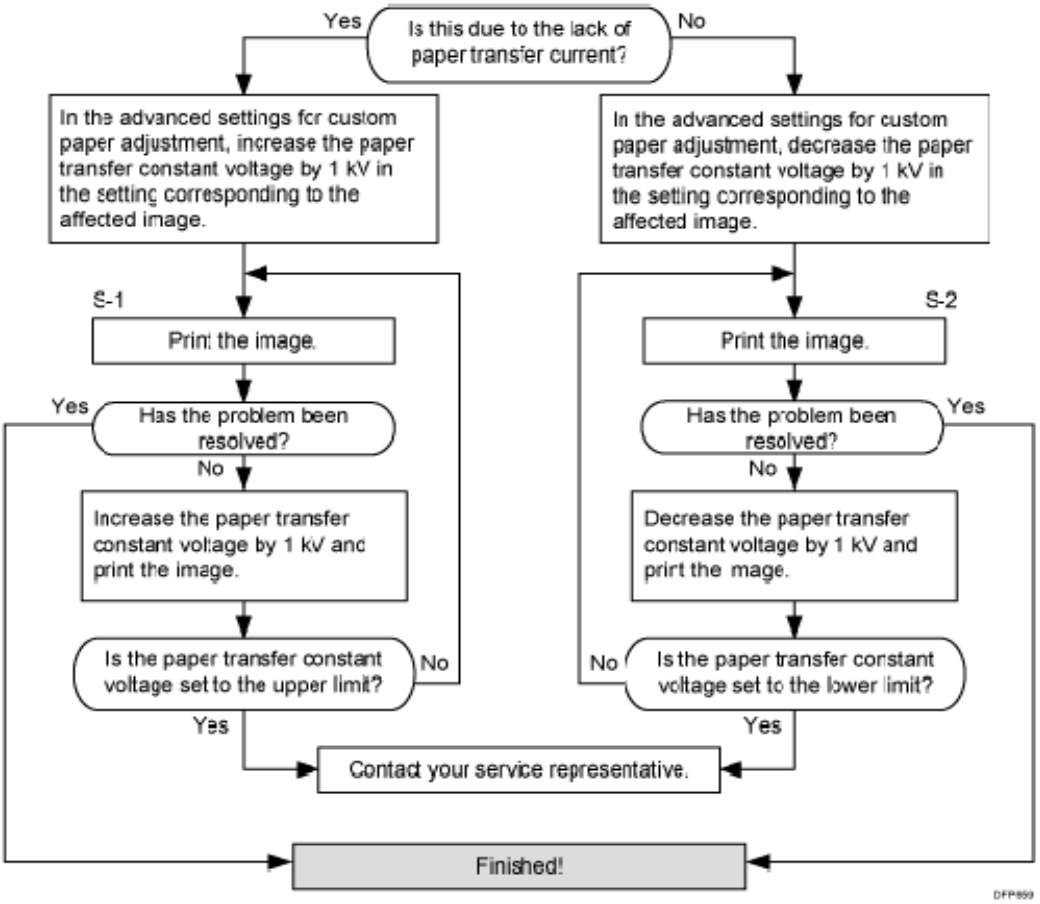
- This solution only works when the thickness of the paper is equivalent to Paper Weight 4 or higher. Do not try this as a solution when using paper with a thickness equivalent to Paper Weight 3 or lower, as it may cause paper misfeeding.

Carry out the following sequence of procedures. Terminate the sequence as soon as the problem is resolved.

Procedure 1: Adjusting the gap of paper transfer



Procedure 2: Adjusting the target constant voltage



<Settings to adjust for the paper transfer constant voltage>

Print Mode	Settings to adjust
Printing in black and white	064: [Ppr Trnsf Cnstnt Voltage: B&W: Side 1]
	065: [Ppr Trnsf Cnstnt Voltage: B&W: Side 2]
Full color printing or full color + special color	070: [Ppr Trnsf Constant Voltage: FC: Side 1]
	071: [Ppr Trnsf Constant Voltage: FC: Side 2]
Printing in special color only	076: [Ppr Trnsf Constant Voltage: S: Side 1]
	077: [Ppr Trnsf Constant Voltage: S: Side 2]

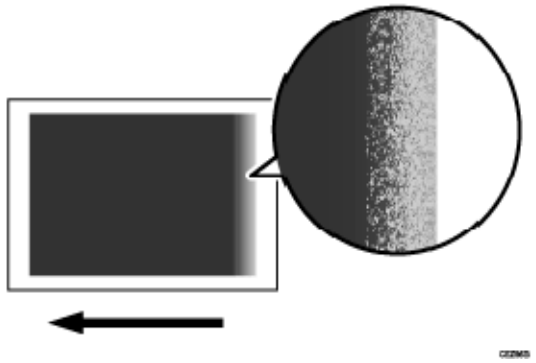
If the white spots at the leading edge become worse, execute the other workflow in steps of 0.5 kV. If S1 workflow worsens the problem, execute the S2 workflow.

Note

- Special color mode is available for Pro C7100X, Pro C7110X, Pro C7100SX, and Pro C7110SX.
- After performing the solution, it is recommended to perform the color calibration of the external controller.
- Depending on the problem, adjust the value in 031: [Paper Transfer Current; Lead Edge: B&W] for black and white printing and 039: [Paper Transfer Current; Lead Edge: FC] for full-color printing.

Fainter Trailing Edge

The trailing edge is fainter.



Cause:

This may occur because of insufficient or excessive paper transfer current when using paper weighing approximately 160 g/m^2 (60 lb. Cover) or heavier at low temperature or humidity.

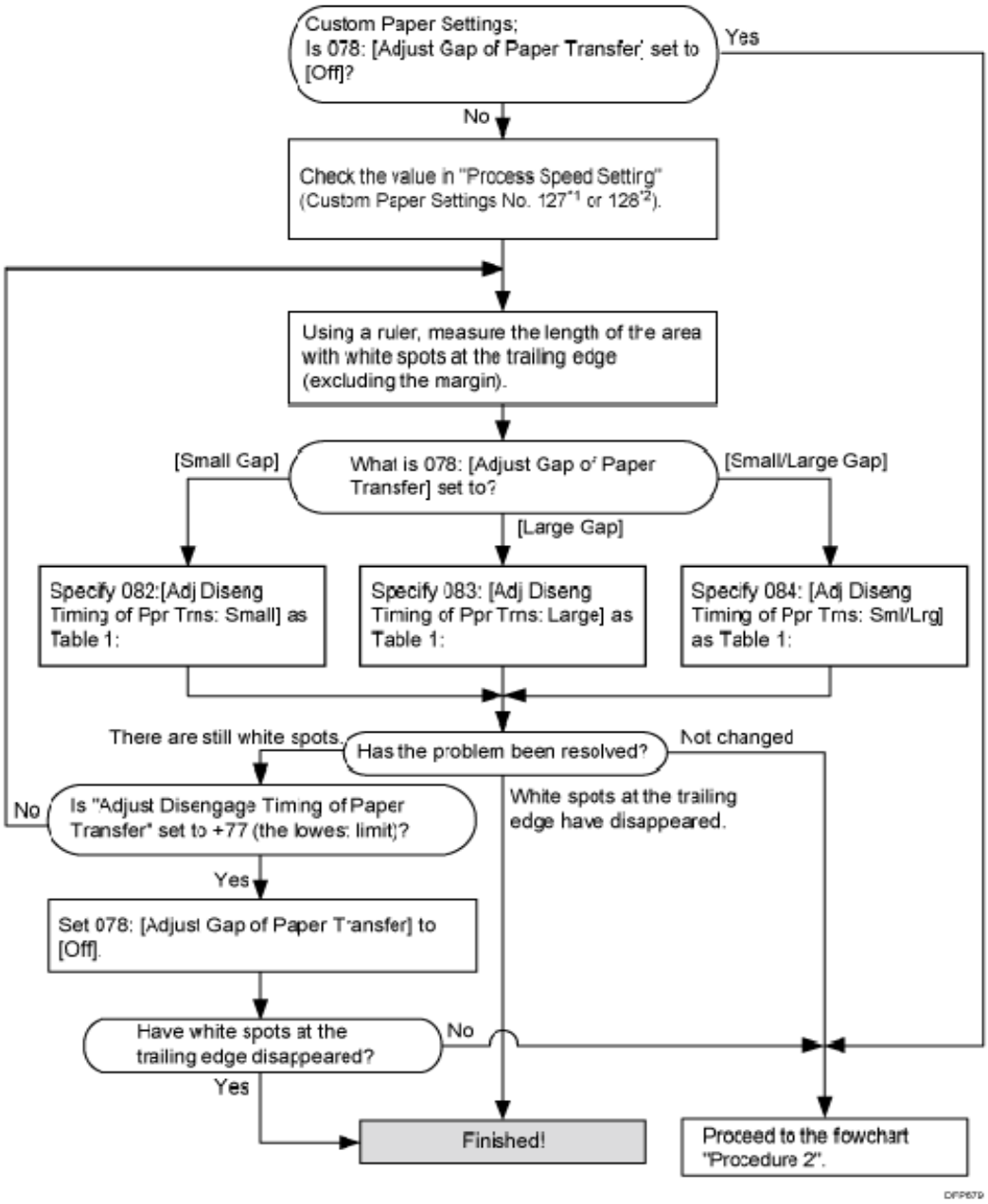
Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

Carry out the following sequence of procedures. Terminate the sequence as soon as the problem is resolved.

Procedure 1: Adjusting the disengage timing of paper transfer



*1: Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner

*2: Printing in full color/Printing in full color including the clear toner while the special color is not set to high quality

1: Adjusting the gap of paper transfer

Length of the area with white spots at the trailing edge (mm)	Process speed setting		
	High	Middle	Low

Length of the area with white spots at the trailing edge (mm)	Process speed setting		
	High	Middle	Low
1	-3	-3	-6
2	-6	-6	-12
3	-9	-9	-18
4	-12	-12	-24
5	-15	-15	-30
6	-18	-18	-36
7	-21	-21	-42
8	-24	-24	-48

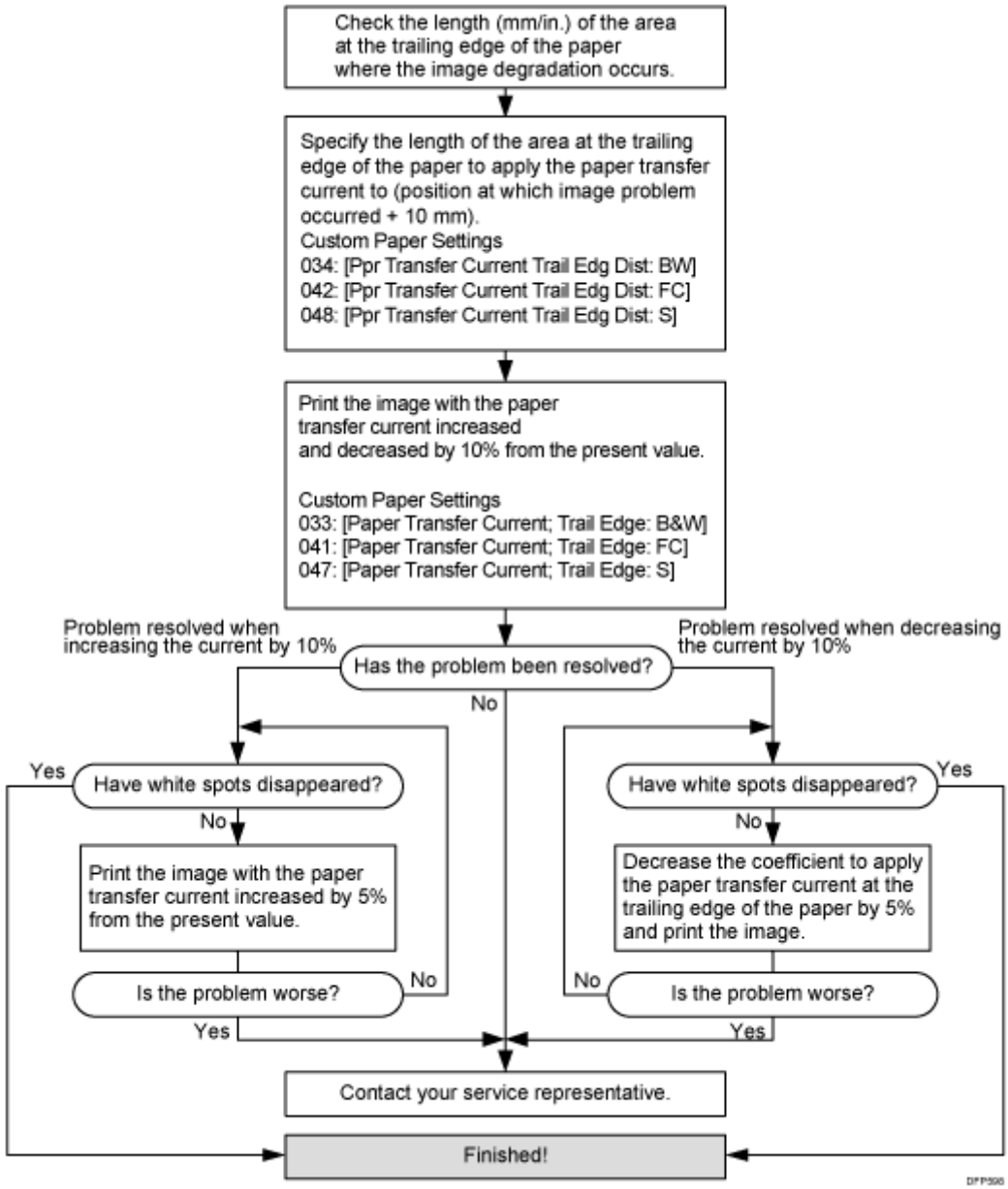
If the length of the area with white spots at the trailing edge measured using a ruler is 3 mm and the process speed is set to [Middle], decrease the value by 9 increments from the present value.

If it is below the lower limit, set it to the lower limit.

Note

- Changing the value in "Adjust Disengage Timing of Paper Transfer" or 078: [Adjust Gap of Paper Transfer], 082: [Adj Diseng Timing of Ppr Trns: Small], 083: [Adj Diseng Timing of Ppr Trns: Large] or 084: [Adj Diseng Timing of Ppr Trns: Sml/Lrg] may cause the jitter to worsen.

Procedure 2: Adjusting the paper transfer current at the trailing edge

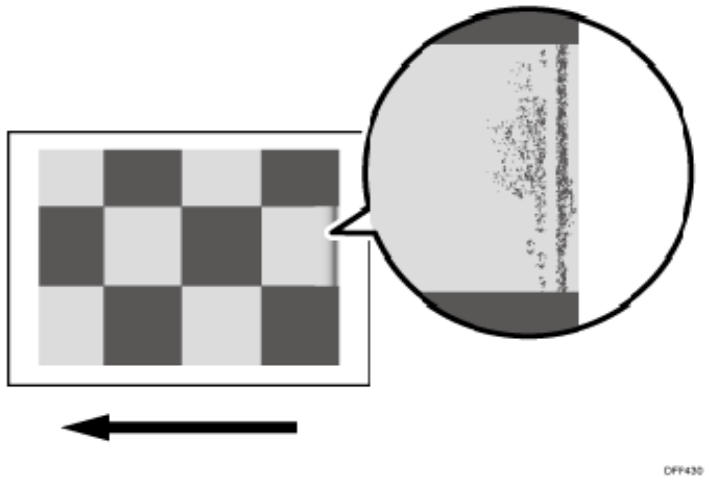


Depending on the problem, adjust the following correction coefficient:

- Printing in black and white: 033: [Paper Transfer Current; Trail Edge: B&W]
- Printing in full color or full color + special color: 041: [Paper Transfer Current; Trail Edge: FC]
- Printing in special color only: 047: [Paper Transfer Current; Trail Edge: S]

Unprinted: When Using a Transparent Film

White spots appear at the trailing edge when printing on a transparent film.



Cause:

This may occur if:

- When printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner
- When printing in full color with the special color
- Slippery transparent film is used

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

Position the image 5 mm or more away from the edge. Adjust the settings as follows:

1. **In [Advanced Settings] for the custom paper you are using, select 001: [Adj Image Position of Side1 Across Feed)] or 003: [Adj Image Position of Side1 With Feed].**
2. **Adjust the image data position.**

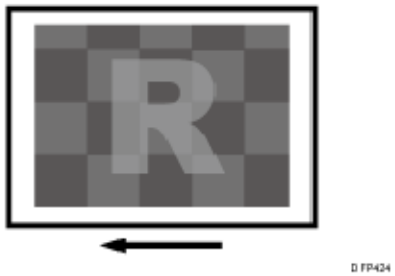
Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.

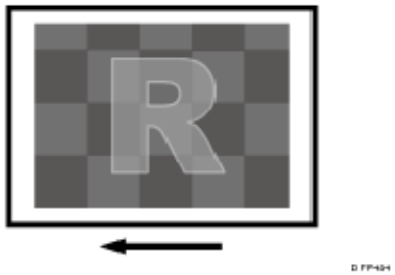
Unprinted: Around Clear-toner Images

Colorless spots appear around clear-toner images.

Normal



Unprinted



Cause:

This may occur if:

- When printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner
- If there is an image using cyan, magenta, yellow, or black toner around clear-toner images.
- Slippery paper is used

Note

- Special color mode is available for Pro C7100X, Pro C7110X, Pro C7100SX, and Pro C7110SX.
- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

1. **In the [Machine: Maintenance] group on the [Adjustment Settings for Skilled Operators], check 0510: [Temperature / Humidity outside the Machine]. Is the temperature 10°C or higher? Is the humidity 15% or higher?**

Yes	Go to the next step.
No	Skip to Step 5.

2. **When using thick paper, register the paper in the custom paper profile.**
3. **In [Advanced Settings] for the custom paper you are using, set 049: [Textured Paper Mode] to [On].**
4. **In the [Machine: Maintenance] group on the [Adjustment Settings for Skilled Operators] menu, execute 0502: [Execute Process Initial Setting].**
5. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	In the [Machine: Maintenance] group on the [Adjustment Settings for Skilled Operators] menu, execute 0515: [Execute Developer Refreshing].

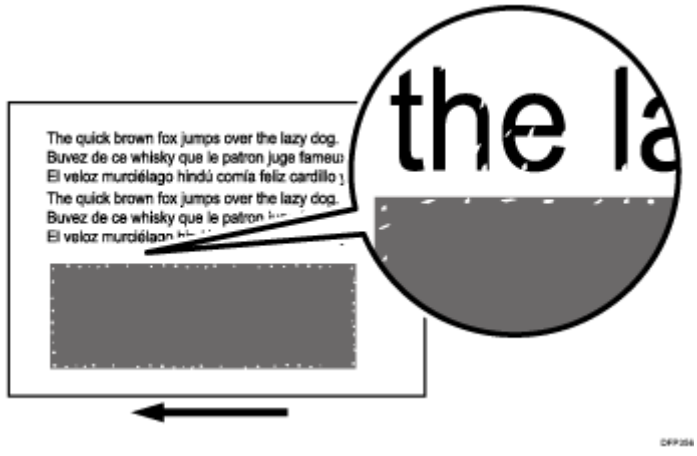
6. **If the problem persists, contact your service representative.**

Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.

Worm Holes: Text or Edge of an Image

Dropouts (character voids) occur when characters or lines are printed in color mode.



Cause:

This may occur if:

- Printing is done at high temperature or humidity
- Printing solid fills
- Slippery paper is used

- Printing on small size of paper

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.
- Dropouts (character voids) do not occur on the first sheet.

Solution:

If the printed image is dense, perform the solution specified in (a) "Decreasing the toner adhesion".
In all other cases, perform the solution specified in (b) "Adjusting the paper transfer feed speed".
If neither of the solutions specified in (a) "Decreasing the toner adhesion" and (b) "Adjusting the paper transfer feed speed" is effective in solving the problem, perform the solution specified in (c) "Adjusting the environment".

(a) Decreasing the toner adhesion

1. **In the [Machine: Image Quality] group on the [Adjustment Settings for Skilled Operators] menu, select 0201: [Adjust Image Density/ DEMS] and execute [Image Density Adjustment: Manual Execute].**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

3. **In [Advanced Settings] for the custom paper you are using, select 017: [Adjust Toner Adhesion (Black)], 018: [Adjust Toner Adhesion (Cyan)], 019: [Adjust Toner Adhesion (Mgenta)], 020: [Adjust Toner Adhesion (Yellow)], or 021: [Adjust Toner Adhesion (Special)] and reduce the value.**
   Decrease the all colors' value by the same amount.
4. **Print the image. Has the problem been resolved?**

Yes	Finished!

No	Proceed to "(b) Adjusting the paper transfer feed speed adjustment" or "(c) Adjusting the environment". If the problem persists, contact your service representative.

(b) Adjusting the paper transfer feed speed

1. **In [Advanced Settings] for the custom paper you are using, select 016: [Paper Transfer Feed Speed Adjustment] and reduce the value by 0.1.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Step 1. If the problem persists even if you lower the value to -0.5, proceed to "(a) Decreasing the toner adhesion" or "(c) Adjusting the environment".

(c) Adjusting the environment

Perform the following solution within the permissible range:

- Lower the temperature and humidity.
- Change to non-slippery paper.

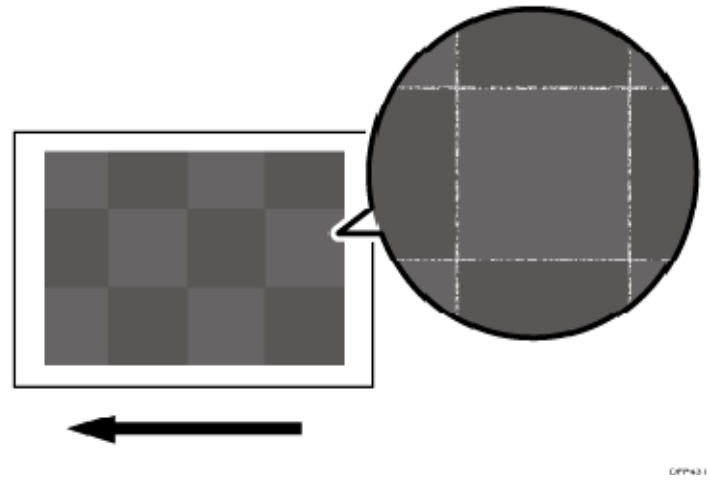
Note

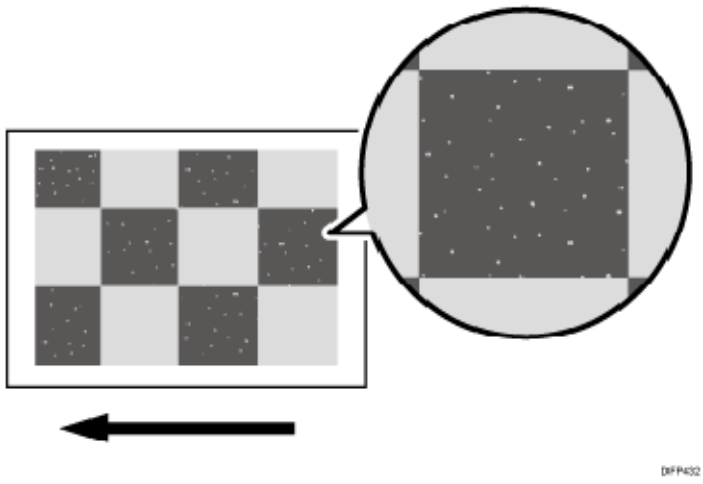
- Decreasing the process speed may produce either or both of the following side effects:
  - Reduction in yields
  - Occurrence of fusing blisters
- After performing the solution, it is recommended to perform the color calibration of the external controller.
- Special color mode is available for Pro C7100X, Pro C7110X, Pro C7100SX, and Pro C7110SX.

Worm Holes: When Using the Clear Toner

When printing using the clear toner, patchy images appear where the clear toner overlaps.

Image Quality Problem: Full Page





Cause:

This may occur if:

- Printing is done at high temperature or humidity
- Printing solid fills
- Slippery paper is used
- Printing on small size of paper

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

- Dropouts (character voids) do not occur on the first sheet.

Solution:

Carry out the following sequence of procedures "(a) Decreasing the toner adhesion", "(b) Adjusting the paper transfer feed speed adjustment" or "(c) Adjusting the environment".

(a) Decreasing the toner adhesion

1. **In the [Machine: Image Quality] group on the [Adjustment Settings for Skilled Operators] menu, select 0201: [Adjust Image Density/ DEMS] and execute [Image Density Adjustment Manual Execute].**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

3. **In [Advanced Settings] for the custom paper you are using, select 017: [Adjust Toner Adhesion (Black)], 018: [Adjust Toner Adhesion (Cyan)], 019: [Adjust Toner Adhesion (Mgenta)], 020: [Adjust Toner Adhesion (Yellow)], or 021: [Adjust Toner Adhesion (Special)] and reduce the value.**
   Decrease the all colors' value by the same amount.
4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Proceed to "(b) Adjusting the paper transfer feed speed adjustment" or "(c) Adjusting the environment". If the problem persists, contact your service representative.

(b) Adjusting the paper transfer feed speed adjustment

1. **In [Advanced Settings] for the custom paper you are using, select 016: [Paper Transfer Feed Speed Adjustment] and reduce the value by 0.1.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!

No	Repeat Steps 1 to 2. If the problem persists even if you lower the value to -0.5, proceed to "(a) Decreasing the toner adhesion" or "(c) Adjusting the environment". If the problem persists, contact your service representative.

(c) Adjusting the environment

Perform the following solution within the permissible range:

- Lower the temperature and humidity.
- Change to non-slippery paper.
- In [Advanced Settings] for the custom paper you are using, reduce the value in "Paper feed interval setting".

  <Printing in full color including the clear toner while the special color is not set to high quality>

  Select 129: [Paper Feed Interval Setting: Productivity].

  <Printing in full color including the clear toner and the special color is set to high quality>

  Select 130: [Paper Feed Interval Setting: Quality].

Note

- Decreasing the process speed may produce either or both of the following side effects:
  - Reduction in yields
  - Occurrence of fusing blisters
- After performing the solution, it is recommended to perform the color calibration of the external controller.
- Special color mode is available for Pro C7100X, Pro C7110X, Pro C7100SX, and Pro C7110SX.

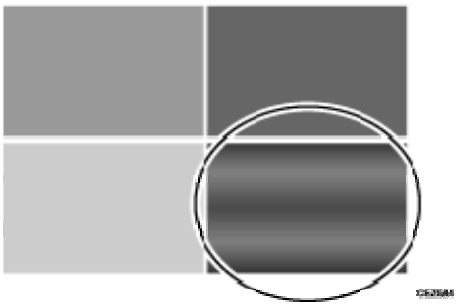
Uneven Density

Low Image Density of Black Area

Black is fainter than normal during full color printing.

Normal

Black is fainter



Cause:

In full color or special color mode, the part printed using only black ink may become faint.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see “Registering a Custom Paper”, Paper Settings.

Solution:

1. **Increase the value by 5 μA in 023: [Image Transfer Current: FC: Black] in [Advanced Settings] for the custom paper you are using.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Increase the value by 2 μA.

3. **Print the image. If a color other than black is affected, increase the value by 2 μA.**
4. **Print the image. Has the problem been resolved?**

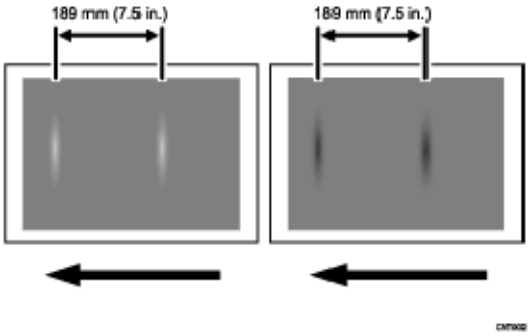
Yes	Finished!
No	Contact your service representative.

Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.

Uneven Density: 189 mm (7.5 inches) Pitch

Density fluctuation occurs at intervals of 189 mm (7.5 inches).



Cause:

If the machine is left unattended for a long period in an environment where temperature and humidity are high, corona products on the photoconductor unit absorb moisture to prevent a buildup or removal of static electricity on the photoconductor unit.

Solution:

1. **In the [Machine: Maintenance] group on the [Adjustment Settings for Skilled Operators] menu, execute 0502: [Execute Process Initial Setting].**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Execute 0502: [Execute Process Initial Setting].

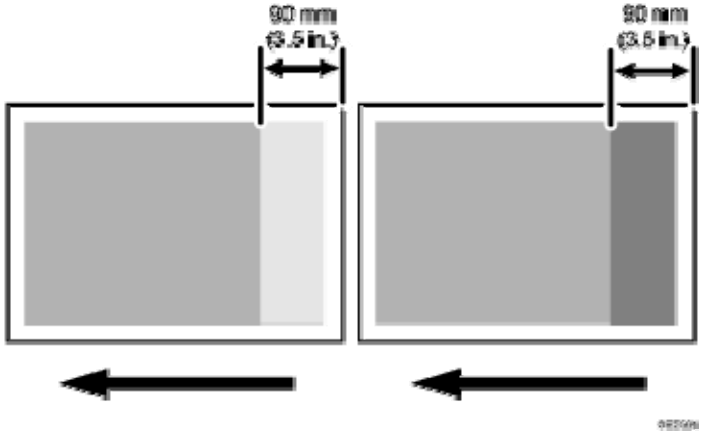
3. **Repeat step 2. If the problem persists even though you have repeated Step 2 five times or more, contact your service representative.**

Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.

Uneven Density within 90 mm (3.5 inches) of the Trailing Edge

Printing in the area extending approximately 90 mm (3.5 inches) from the trailing edge is fainter or denser.



Cause:

This may occur if:

- Printing is done at low temperature or humidity

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see “Registering a Custom Paper”, Paper Settings.

Solution:

The solution depends on whether the area within 90 mm (3.5 inches) of the trailing edge is denser or fainter.

<If the area within 90 mm (3.5 inches) of the trailing edge is fainter>

1. **In [Advanced Settings] for the custom paper you are using, select 015: [Transfer**

Timing Roller Feed Speed Adj]. Check the present value. Is it higher than +0.5%?

Yes	Contact your service representative.
No	Increase the value by 0.1 percentage point.

2. Print the image. Has the problem been resolved?

Yes	Finished!
No	Repeat Steps 1 and 2. If the problem persists even though you have increased the value to +0.5%, contact your service representative.

<If the area within 90 mm (3.5 inches) of the trailing edge is denser>

1. In [Advanced Settings] for the custom paper you are using, select 015: [Transfer Timing Roller Feed Speed Adj]. Check the present value. Is it higher than -0.5%?

Yes	Contact your service representative.
No	Decrease the value by 0.1 percentage point.

2. Print the image. Has the problem been resolved?

Yes	Finished!
No	Repeat Steps 1 and 2. If the problem persists even though you have decreased the value to -0.5%, contact your service representative.

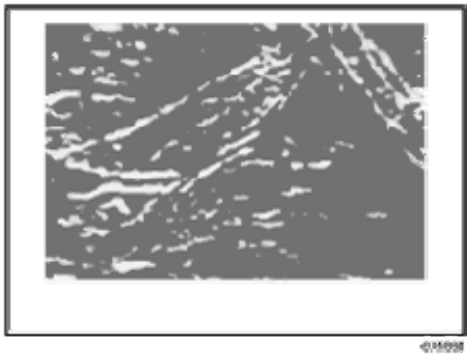
Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.

Uneven Density (Textured Paper)

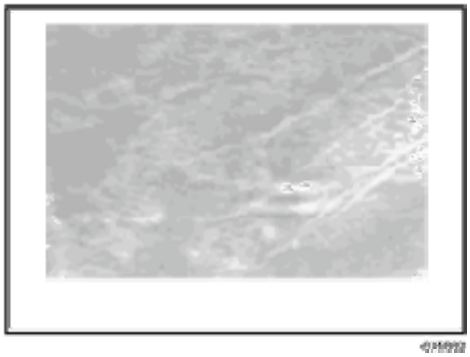
White spots on an embossed surface

This is because the voltage of the applied paper transfer roller is too low.



Dense printing on an embossed surface

This is because the voltage of the applied paper transfer roller is too high.



Cause:

This may occur if:

- Heavily textured paper is used.
- Thick paper is used.
- Documents with a small image area are printed continuously.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

In [Advanced Settings] for the registered custom paper preset, adjust the paper transfer voltage applied in Textured Paper mode by referring to the following table:

Print Mode	Setting Items
Black-and-white printing	050: [Txt Ppr: Ppr Trns Voltage: B&W: Side 1]

Print Mode	Setting Items
	051: [Txt Ppr: Ppr Trns Voltage: B&W: Side 2]
Full color printing or full color + special color	052: [Txt Ppr: Paper Trnsf Voltage: FC: Side 1]
	053: [Txt Ppr: Paper Trnsf Voltage: FC: Side 2]
	054: [Txt. Pp.: Pp. Trn. Vl.: FC: Sd. 1: Qul.]
	055: [Txt. Pp.: Pp. Trn. Vl.: FC: Sd. 2: Qul.]
Special color printing	056: [Txt Ppr: Paper Trnsf Voltage: S: Side 1]
	057: [Txt Ppr: Paper Trnsf Voltage: S: Side 2]

If white spots appear on an embossed surface

1. **Increase the voltage by 0.2 kV.**
2. **Print the image. Has the problem been resolved?**

Yes	Finish!
No	Keep increasing the voltage by 0.2 kV until the problem is resolved.

3. **Repeat Step 2. If printing is too dense, see "If printing on an embossed surface is dense".**
4. **If the problem persists, contact your service representative.**

If printing on an embossed surface is dense

1. **Decrease the voltage by 0.2 kV.**
2. **Print the image. Has the problem been resolved?**

Yes	Finish!
No	Keep decreasing the voltage by 0.2 kV until the problem is resolved.

3. **Repeat Step 2. If white spots appear, see "If white spots appear on an embossed surface".**
4. **If the problem persists, contact your service representative.**

Note

- If the problem persists, the developer may have deteriorated. In the [Machine: Maintenance] group on the [Adjustment Settings for Skilled Operators] menu, execute 0515: [Execute Developer Refreshing].
- Special color mode is available for Pro C7100X, Pro C7110X, Pro C7100SX, and Pro C7110SX.

Paper Weight 3 or lower is used

1. **Set 049: [Textured Paper Mode] to [On] in [Advanced Settings] for the custom paper you are using.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

3. **Does a paper jam (J032) occur?**

Yes	Perform the solution for mottling. For details, see page 96 "Mottling".
No	Depending on the problem with the printed image, perform the solution specified in "If white spots appear on an embossed surface" or "If printing on an embossed surface is dense".

Note

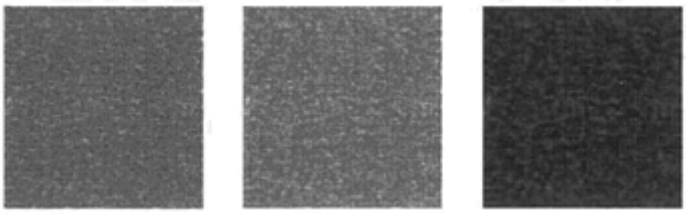
- After performing the solution, it is recommended to perform the color calibration of the external controller.

Mottling

Mottling occurs in solid-filled areas.

Normal

Mottled



Cause:

This may occur if:

- Using paper with a rough surface
- Documents with a small image area are printed continuously.
- Printing in a low humidity environment
- Printing in a high humidity environment

Solution:

Carry out the following sequence of procedures. Terminate the sequence as soon as the problem is resolved.

(a) Adjust the image density.

1. **To identify the affected color, print three full-page, solid-fill A3 or DLT sheets for each of cyan, yellow, magenta, and black.**
2. **In the [Machine: Image Quality] group on the [Adjustment Settings for Skilled Operators] menu, select 0201: [Adjust Image Density/ DEMS] and execute [Image Density Adjustment: Manual Execute].**
3. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Proceed to "(b) Adjust the transfer current.".

(b) Adjust the transfer current.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

1. **In [Advanced Settings] for the custom paper you are using, adjust the paper transfer current.**

   <Printing in black and white>

Increase the value by -5 μA in 029: [Paper Transfer Current: B&W: Side 1] or 030: [Paper Transfer Current: B&W: Side 2].

Eg., -40 μA to -45 μA

<Printing in full color/Printing in full color including the clear toner while the special color is not set to high quality>

Increase the value by -5 μA in 035: [Paper Transfer Current: FC: Side 1] or 036: [Paper Transfer Current: FC: Side 2].

Eg., -40 μA to -45 μA

<Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

Increase the value by -5 μA in 037: [Paper Trnsfr. Current: FC: Side 1: Qual.] or 038: [Paper Trnsfr. Current: FC: Side 2: Qual.].

Eg., -40 μA to -45 μA

<Printing in special color only>

Increase the value by -5 μA in 043: [Paper Transfer Current: Special: Side 1] or 044: [Paper Transfer Current: Special: Side 2].

Eg., -40 μA to -45 μA

2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Steps 1 to 2. If the problem persists even though you have repeated Steps 1 and 2 four times or more, go to the next step.

3. **Adjust the image transfer current.**

<Printing in black and white>

Increase the value by 5 μA in 022: [Image Transfer Current: B&W].

<Full color printing or full color + special color>

Increase the value by 5 μA in 023: [Image Transfer Current: FC: Black], 024: [Image Transfer Current: FC: Cyan], 025: [Image Transfer Current: FC: Magenta], 026: [Image Transfer Current: FC: Yellow] or 027: [Image Transfer Current: FC: Special].

<Printing in special color only>

Increase the value by 5 μA in 028: [Image Transfer Current: Special].

4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Steps 3 to 4. If the problem persists, go to the next step.

5. **When using paper with a thickness equivalent to Paper Weight 3 or below, proceed to (c) "Replenish the developer". When using paper with a thickness equivalent to Paper Weight 4 or above, set 049: [Textured Paper Mode] to [On].**
6. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

7. **Check the paper transfer voltage applied when the Textured Paper mode is enabled.**

   <Printing in black and white>

   Select 050: [Txt Ppr: Ppr Trns Voltage: B&W: Side 1] or 051: [Txt Ppr: Ppr Trns Voltage: B&W: Side 2].

   <Printing in full color/Printing in full color including the clear toner while the special color is not set to high quality>

   Select 052: [Txt Ppr: Paper Trnsf Voltage: FC: Side 1] or 053: [Txt Ppr: Paper Trnsf Voltage: FC: Side 2].

   <Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

   Select 054: [Txt. Pp.: Pp. Trn. Vl.: FC: Sd. 1: Qul.] or 055: [Txt. Pp.: Pp. Trn. Vl.: FC: Sd. 2: Qul.].

   <Printing in special color only>

   Select 056: [Txt Ppr: Paper Trnsf Voltage: S: Side 1] or 057: [Txt Ppr: Paper Trnsf Voltage: S: Side 2].
8. **Adjust the paper transfer voltage applied when the Textured Paper mode is enabled.**

   <Printing in black and white>

   Add 0.5 kV to the value checked in Step 7 and enter it in 050: [Txt Ppr: Ppr Trns Voltage: B&W: Side 1] or 051: [Txt Ppr: Ppr Trns Voltage: B&W: Side 2].

   <Printing in full color/Printing in full color including the clear toner while the

special color is not set to high quality>

Add 0.5 kV to the value checked in Step 7 and enter it in 052: [Txt Ppr: Paper Trnsf Voltage: FC: Side 1] or 053: [Txt Ppr: Paper Trnsf Voltage: FC: Side 2].

<Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

Add 0.5 kV to the value checked in Step 7 and enter it in 054: [Txt. Pp.: Pp. Trn. Vl.: FC: Sd. 1: Qul.] or 055: [Txt. Pp.: Pp. Trn. Vl.: FC: Sd. 2: Qul.].

<Printing in special color only>

Add 0.5 kV to the value checked in Step 7 and enter it in 056: [Txt Ppr: Paper Trnsf Voltage: S: Side 1] or 057: [Txt Ppr: Paper Trnsf Voltage: S: Side 2].

9. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Steps 8 to 9. If the problem persists even though you have repeated Steps 7 and 8 six times, go to the next step.

10. **Adjust the paper transfer voltage applied when the Textured Paper mode is enabled.**

<Printing in black and white>

Subtract 0.5 kV to the value checked in Step 7 and enter it in 050: [Txt Ppr: Ppr Trns Voltage: B&W: Side 1] or 051: [Txt Ppr: Ppr Trns Voltage: B&W: Side 2].

<Printing in full color/Printing in full color including the clear toner while the special color is not set to high quality>

Subtract 0.5 kV to the value checked in Step 7 and enter it in 052: [Txt Ppr: Paper Trnsf Voltage: FC: Side 1] or 053: [Txt Ppr: Paper Trnsf Voltage: FC: Side 2].

<Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

Subtract 0.5 kV to the value checked in Step 7 and enter it in 054: [Txt. Pp.: Pp. Trn. Vl.: FC: Sd. 1: Qul.] or 055: [Txt. Pp.: Pp. Trn. Vl.: FC: Sd. 2: Qul.].

<Printing in special color only>

Subtract 0.5 kV to the value checked in Step 7 and enter it in 056: [Txt Ppr: Paper Trnsf Voltage: S: Side 1] or 057: [Txt Ppr: Paper Trnsf Voltage: S: Side 2].

11. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Steps 10 to 11. If the problem persists even though you have repeated Steps 7 and 8 six times, proceed to "(c) Replenish the developer".

(c) Replenish the developer

1. **In the [Machine: Maintenance] group on the [Adjustment Settings for Skilled Operators] menu, execute 0515: [Execute Developer Refreshing].**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Reload with new paper.

3. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Replace the paper with smoother paper.

4. **Print the image. Has the problem been resolved?**

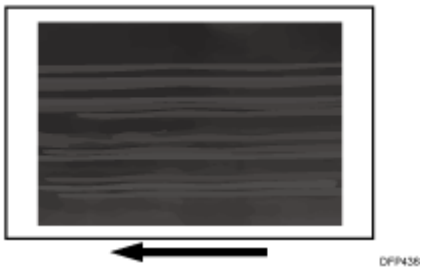
Yes	Finished!
No	Contact your service representative.

Note

- If the problem occurs only if black is used when printing in full-color mode, carry out the procedure in see page 90 "Low Image Density of Black Area".
- After performing the solution, it is recommended to perform the color calibration of the external controller.
- Special color mode is available for Pro C7100X, Pro C7110X, Pro C7100SX, and Pro C7110SX.

Worm Track

White wavy streaks appear if using a transparent film.



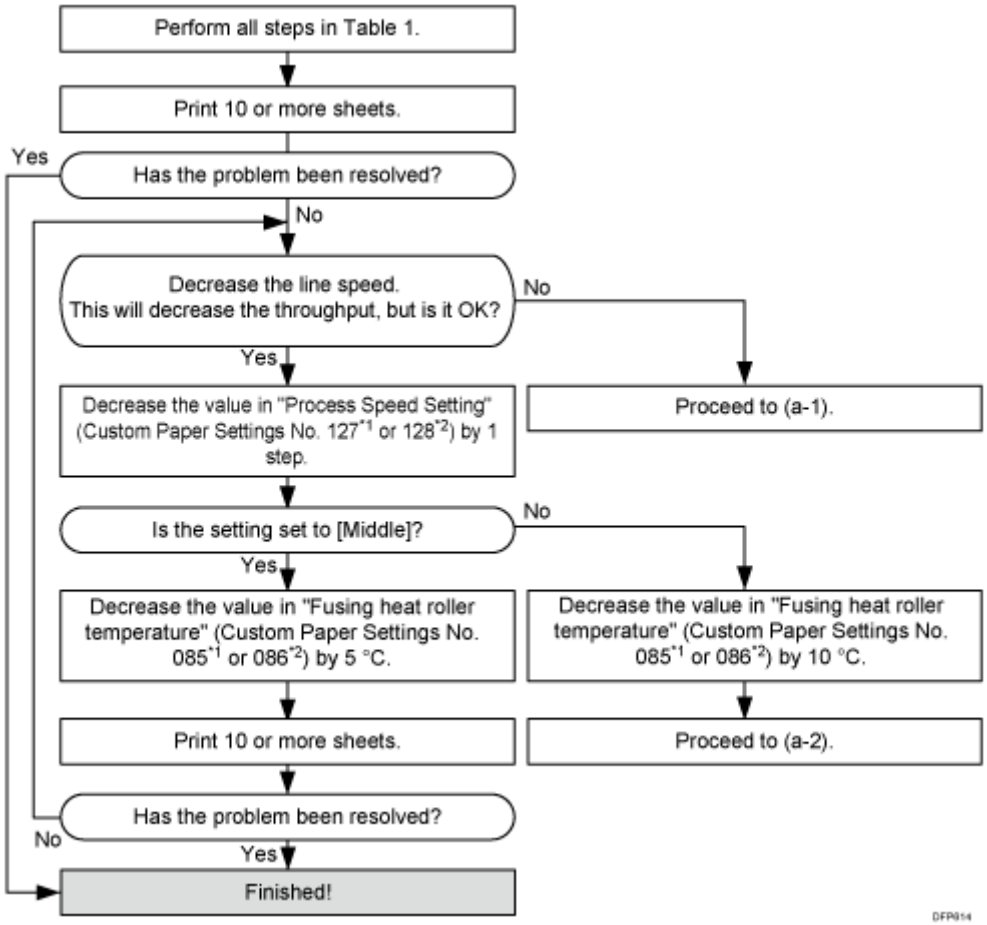
Cause:

This problem occurs when synthetic paper or transparent film becomes wavy because of the fusing heat is high and the image comes into contact with the fusing belt.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:



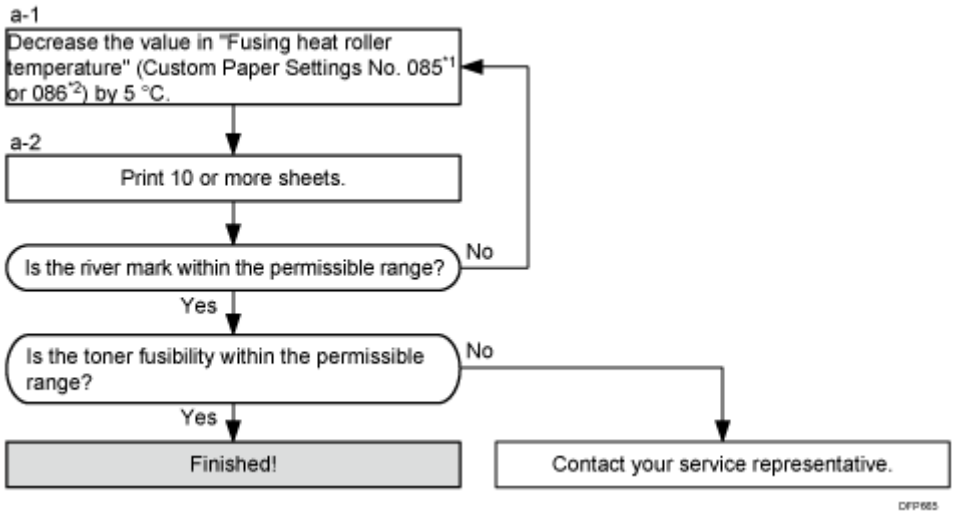


Table 1:

Settings to adjust	What to do
090: [Adj Fsng Tmp to Trnsf Ppr: Ppr: Qual] 092: [Adj Fsng Tmp to Trnsf Ppr:Ppr: Qual: S][*3]	Increase the value by 1.
093: [Adjust Adding Fusing Temperature 1] 094: [Adjst Addng Fusng Tempratre 1: Special][*3]	Set to 0 degrees.
095: [Adjust Adding Fusing Temperature 2] 096: [Adjst Addng Fusng Tempratre 2: Special][*3]	When 127: [Process Speed Setting: Productivity] or 128: [Process Speed Setting: Quality] in [Advanced Settings] for the custom paper you are using is set to [High] or [Middle], set the value to 15 degrees. When 127: [Process Speed Setting: Productivity] or 128: [Process Speed Setting: Quality] is set to [Low], set the value to 5 degrees.
131: [Rdc. Init. CPM: Low Tmp. Envir.: Prod.][*2] 132: [Rdc. Init. CPM: Low Tmp. Envir.: Qual.][*1]	Set to [Reduce Level 3].
133: [Rdc. In. CPM: N./H. Temp. Envr.: Prod.] [*2] 134: [Rdc. In. CPM: N./H. Temp. Envr.: Qual.][*1]	Set to [Reduce Level 3].

*1: Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner

*2: Printing in full color/Printing in black and white/Printing in full color including the clear toner while the special color is not set to high quality

*3: Special color mode is available for Pro C7100X, Pro C7110X, Pro C7100SX, and Pro C7110SX.

Note

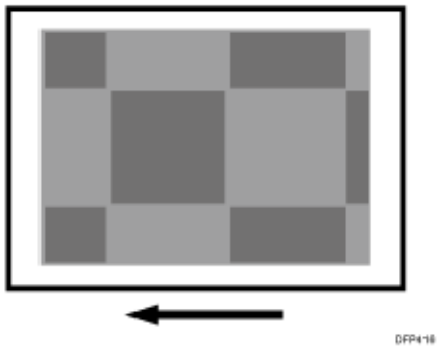
- After performing the solution, it is recommended to perform the color calibration of

the external controller.

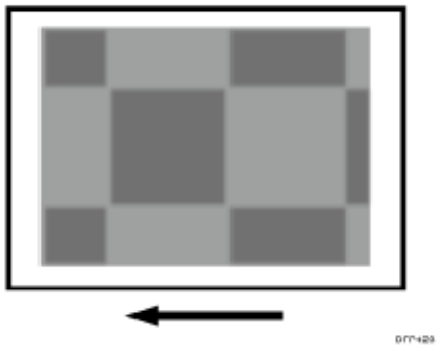
Blurred Image: Around a Clear Image

Blurring occurs around a clear image.

Normal



Blurred



Cause:

This may occur if:

- Printing in a high temperature and humidity environment

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

1. **In [Advanced Settings] for the custom paper you are using, select 023: [Image Transfer Current: FC: Black].**

2. **Decrease the value by 5 μA.**
3. **Print the image. Has the problem been resolved?**

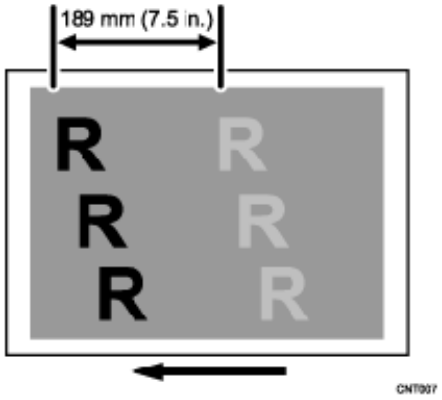
Yes	Finished!
No	Repeat Steps 2 to 3. If the problem persists even if you lower the value to -15 μA, contact your service representative.

Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.

Residual Image: Negative Ghost

A ghost image of an image to be printed appears at a distance of 189 mm (7.5 inches) to the side of the intended image.



Cause:

This may occur if:

- Solid filled images or bold characters are printed in black on a halftone background
- Printing is done at low temperature or humidity

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

1. **In the [Machine: Image Quality] group on the [Adjustment Settings for Skilled**

Operators] menu, select 0201: [Adjust Image Density/ DEMS] and execute [Image Density Adjustment: Manual Execute].

2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Register the paper in the custom paper profile.

3. **Configure the following settings in [Advanced Settings] for the custom paper you are using.**

   <Printing in black and white>

   Decrease the value in 022: [Image Transfer Current: B&W] by 5 μA.

   If the image becomes worse, increase the value by 5 μA.

   <Full color printing or full color + special color>

   Decrease the value in 023: [Image Transfer Current: FC: Black], 024: [Image Transfer Current: FC: Cyan], 025: [Image Transfer Current: FC: Magenta], 026: [Image Transfer Current: FC: Yellow] or 027: [Image Transfer Current: FC: Special] by 5 μA.

   If the image becomes worse, increase the value by 5 μA.

   <Printing in special color only>

   Decrease the value in 028: [Image Transfer Current: Special] by 5 μA.

   If the image becomes worse, increase the value by 5 μA.

4. **Print the image. Has the problem been resolved?**

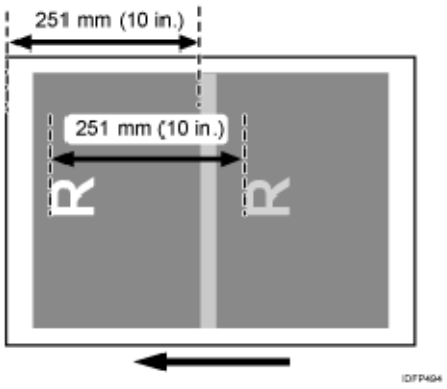
Yes	Finished!
No	Contact your service representative.

Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.
- When outline characters are printed, thick ghosting appears.
- Special color mode is available for Pro C7100X, Pro C7110X, Pro C7100SX, and Pro C7110SX.

Uneven Gloss

Glossy lines perpendicular to the paper feed direction appear.
Ghosting occurs if lower luster affects parts of the fusing belt lacking toner (such as the intervals between paper feeds, margins at the leading and trailing edges, and white spots).



Cause:

This occurs if the toner wax remaining on the fusing belt is uneven.
This may occur if:

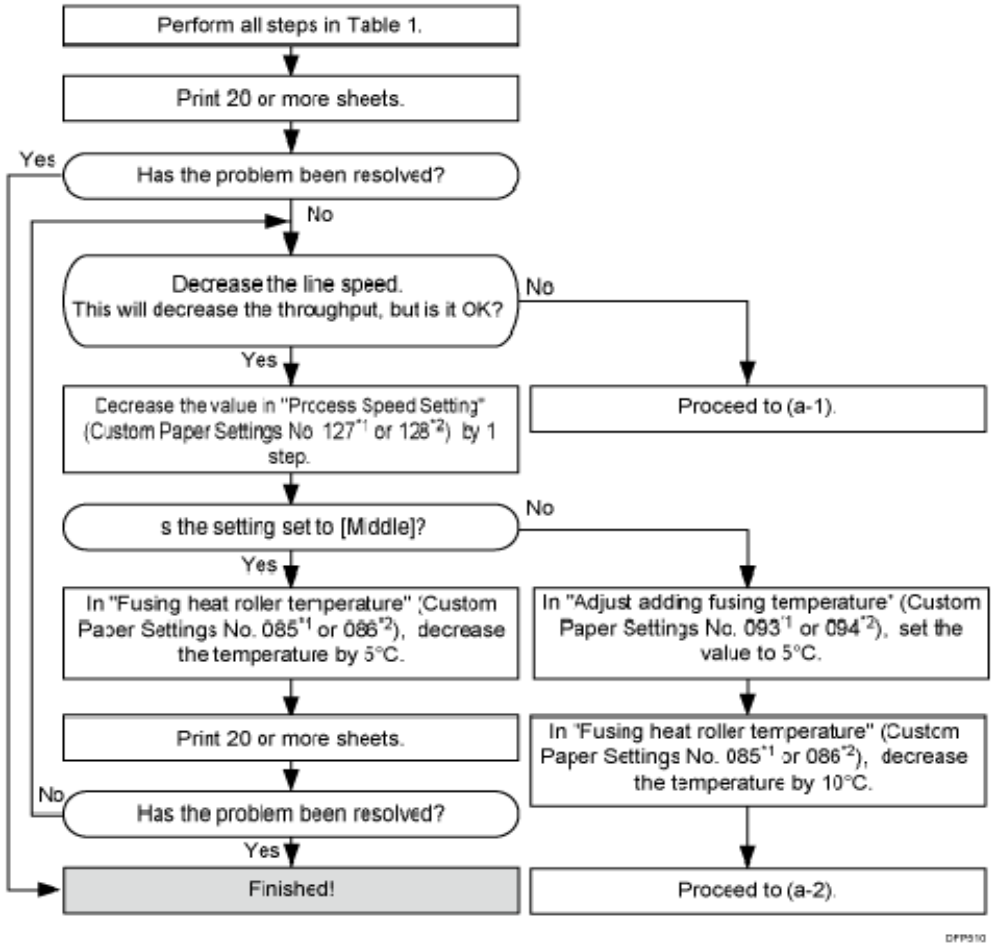
- Paper with a thickness equivalent to Paper Weight 7 or 8 is used, so that the required temperature is high
- Slippery paper is used
- An image covering a wide area is printed

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

(a) If 127: [Process Speed Setting: Productivity] or 128: [Process Speed Setting: Quality] in [Advanced Settings] for the custom paper you are using is set to [High] or [Middle].



(b) If 127: [Process Speed Setting: Productivity] or 128: [Process Speed Setting: Quality] is set to [Low].

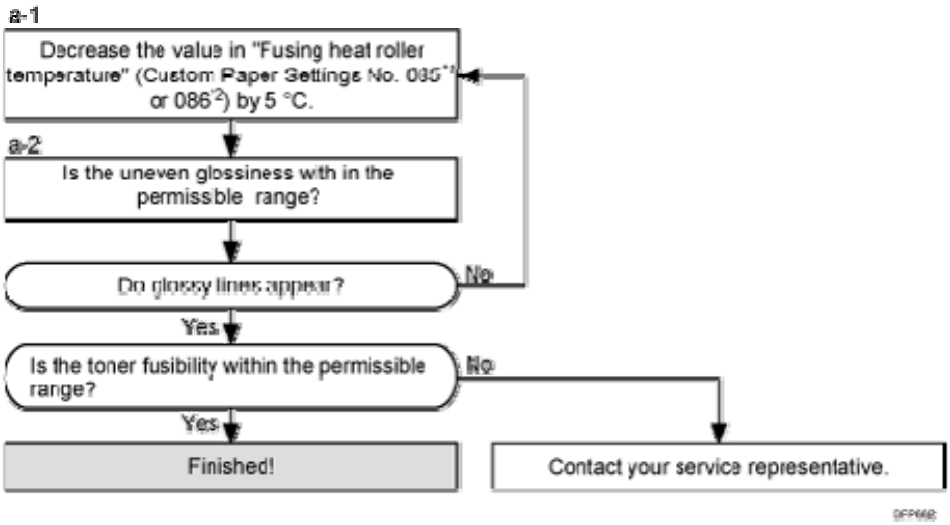


Table 1:

Settings to adjust	What to do
090: [Adj Fsng Tmp to Trnsf Ppr: Ppr: Qual] 092: [Adj Fsng Tmp to Trnsf Ppr:Ppr: Qual: S][*3]	Increase the value by 1.
093: [Adjust Adding Fusing Temperature 1] 094: [Adjst Addng Fusng Tempratre 1: Special][*3]	Set to 0 degrees.
095: [Adjust Adding Fusing Temperature 2] 096: [Adjst Addng Fusng Tempratre 2: Special][*3]	When 127: [Process Speed Setting: Productivity] or 128: [Process Speed Setting: Quality] in [Advanced Settings] for the custom paper you are using is set to [High] or [Middle], set the value to 15 degrees. When 127: [Process Speed Setting: Productivity] or 128: [Process Speed Setting: Quality] is set to [Low], set the value to 5 degrees.
131: [Rdc. Init. CPM: Low Tmp. Envir.: Prod.][*2] 132: [Rdc. Init. CPM: Low Tmp. Envir.: Qual.][*1]	Set to [Reduce Level 3].
133: [Rdc. In. CPM: N./H. Temp. Envr.: Prod.][*2] 134: [Rdc. In. CPM: N./H. Temp. Envr.: Qual.][*1]	Set to [Reduce Level 3].

*1: Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner

*2: Printing in full color/Printing in black and white/Printing in full color including the clear toner while the special color is not set to high quality

*3: Special color mode is available for Pro C7100X, Pro C7110X, Pro C7100SX, and Pro C7110SX.

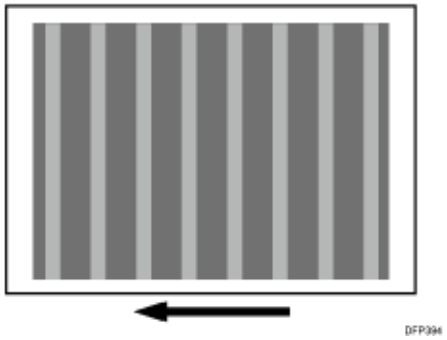
Note

- After performing the solution, it is recommended to perform the color calibration of

the external controller.

Residual Gloss (Gloss Ghost): Multiple

Multiple horizontal glossy lines appear.



Cause:

If an image covering a wide area is continuously printed, the toner stains the fusing belt. This problem occurs because the glossy ghosting at the leading edge margin remaining on the fusing belt.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.
- If the glossy ghosting of the previous image pattern occurs, see page 108 "Uneven Gloss".

Solution:

Perform procedure (a). If the problem persists, perform procedure (b).

Procedure (a):

1. **In the [Machine: Maintenance] group on the [Adjustment Settings for Skilled Operators] menu, select 0506: [Smooth Fusing Belt] and execute [For Uneven Gloss (Short Time)].**
2. **Print the image. Has the problem been resolved?**

Yes	Go to the next step.
No	Execute [For Uneven Gloss (Short Time)] in 0506: [Smooth Fusing Belt] until the problem is resolved.

3. **Register the paper in the custom paper profile.**
4. **To prevent this problem, polish the fusing belt by the fusing belt smoothing roller more frequently. Configure the following settings in [Advanced Settings] for the custom paper you are using.**

   <Printing in full color/Printing in black and white/Printing in full color including the clear toner while the special color is not set to high quality>

   Set 102: [Fusr Blt Smthng: PprTyp/Wt Coef: Prod] to "100".

   <Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

   Set 103: [Fusr Blt Smthng: PprTyp/Wt Coef: Qual] to "100".

   Procedure (b):

1. **Adjust the paper feed interval**

   <Printing in full color/Printing in black and white/Printing in full color including the clear toner while the special color is not set to high quality>

   Decrease the value in 129: [Paper Feed Interval Setting: Productivity] by 20.

   <Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

   Decrease the value in 130: [Paper Feed Interval Setting: Quality] by 20.
2. **Print the image. Has the problem been resolved?**

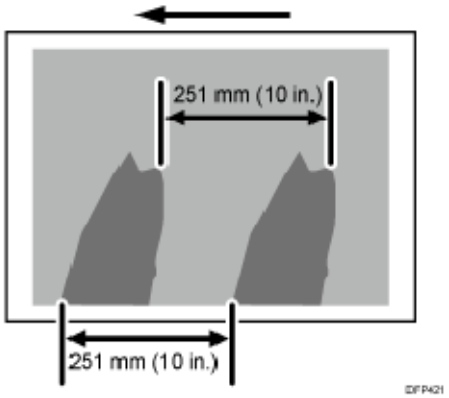
Yes	Finished!
No	Repeat Steps 1 to 2. If the problem persists, contact your service representative.

Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.
- Performing procedure (b) will decrease throughput.

Uneven Gloss: Partly

Uneven glossiness occurs partly.



Cause:

The fusing belt is stained by the toner wax.

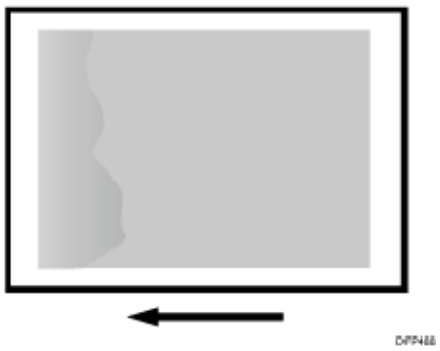
Solution:

1. **In the [Machine: Maintenance] group on the [Adjustment Settings for Skilled Operators] menu, select 0506: [Smooth Fusing Belt].**
2. **Execute [For Uneven Gloss (Short Time)].**
3. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Contact your service representative.

Uneven Gloss: Wavy

When performing duplex printing on thin coated paper, wavy uneven glossiness occurs on side 1.



Cause:

Because of the level of paper separation from the fusing unit being affected, uneven glossiness may occur.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

Carry out the following sequence of procedures. Terminate the sequence as soon as the problem is resolved.

Procedure (a): Adjust the heat roller temperature

Performing this procedure will decrease throughput.

1. **In [Advanced Settings] for the custom paper you are using, adjust the fusing heat roller temperature.**

   <Printing in full color including the clear toner while the special color is not set to high quality>

   Decrease the value in 085: [Fusing Heat Roller Temp. Adjust.: Prod.] by 5°C.

   <Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

   Decrease the value in 086: [Fusing Heat Roller Temp. Adjust.: Qual.] 5°C.

   If decreased values affect fusibility, image glossiness may lower.

2. **Print 10 sheets of paper with wavy density fluctuation. Has the problem been solved?**

Yes	Finished!
No	Contact your service representative.

Procedure (b): Adjust the mask width

1. **In [Advanced Settings] for the custom paper you are using, check the value in "Adjust erase margin of leading edge".**

   <Printing in full color/Printing in black and white/Printing in full color including the clear toner while the special color is not set to high quality>

   Select 009: [Adj. Erase Margin of Leadg. Edge: Prod.].

<Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

Select 010: [Adj. Erase Margin of Leadg. Edge: Qual.].

2. **Adjust the value in "Adjust erase margin of trailing edge".**

   <Printing in full color/Printing in black and white/Printing in full color including the clear toner while the special color is not set to high quality>

   Add 1 increment to the value checked in Step 1 and enter it in 011: [Adj. Erase Margin of Trailg. Edge: Prod.].

   <Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

   Add 1 increment to the value checked in Step 1 and enter it in 012: [Adj. Erase Marg. Of Trailg. Edge: Qual.].

3. **Print 10 sheets of paper with wavy density fluctuation. Has the problem been solved?**

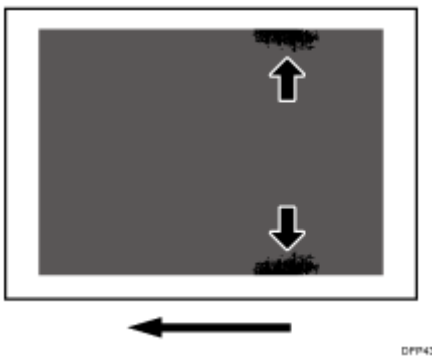
Yes	Finished!
No	Contact your service representative.

Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.

Uneven Gloss: Side 2

Uneven glossiness appears on side 2 in duplex printing.



Cause:

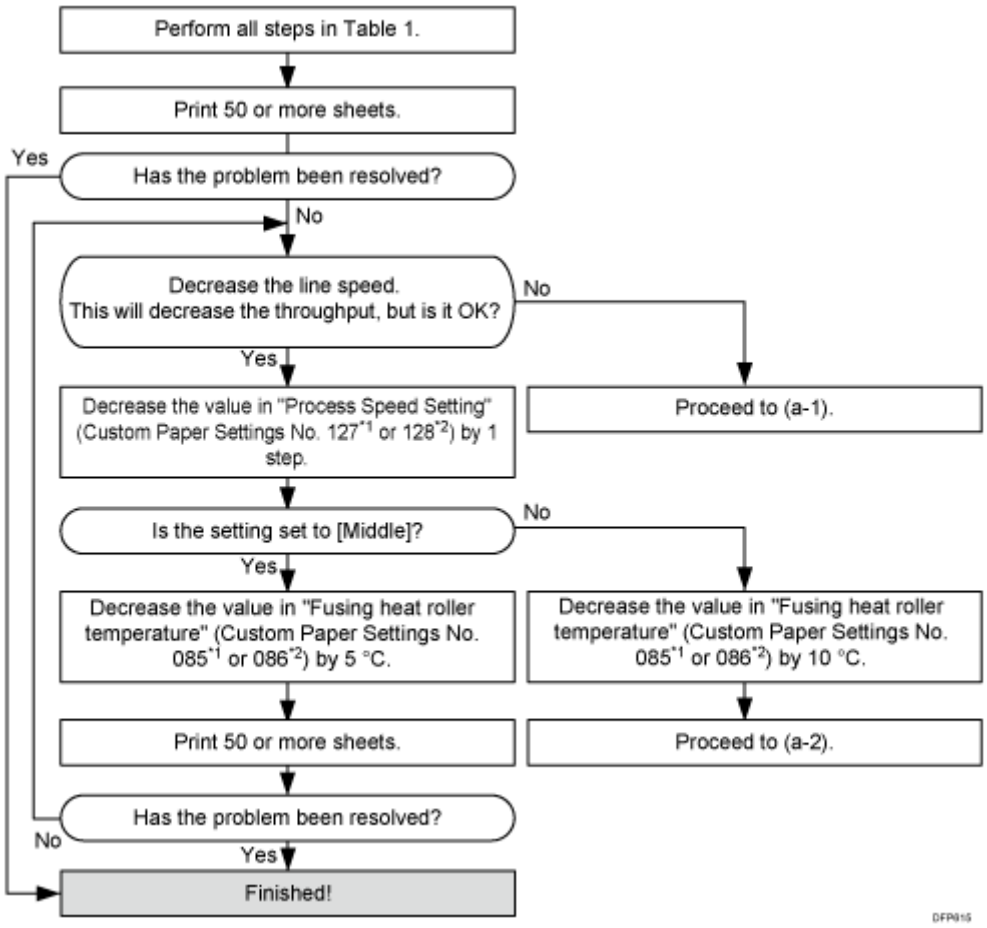
If thin coated paper or paper opened and stored at high temperature and humidity is used, it

may be severely curled after fusing is performed on Side 1, so that and the paper and fusing belt may come into contact, resulting in this problem.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:



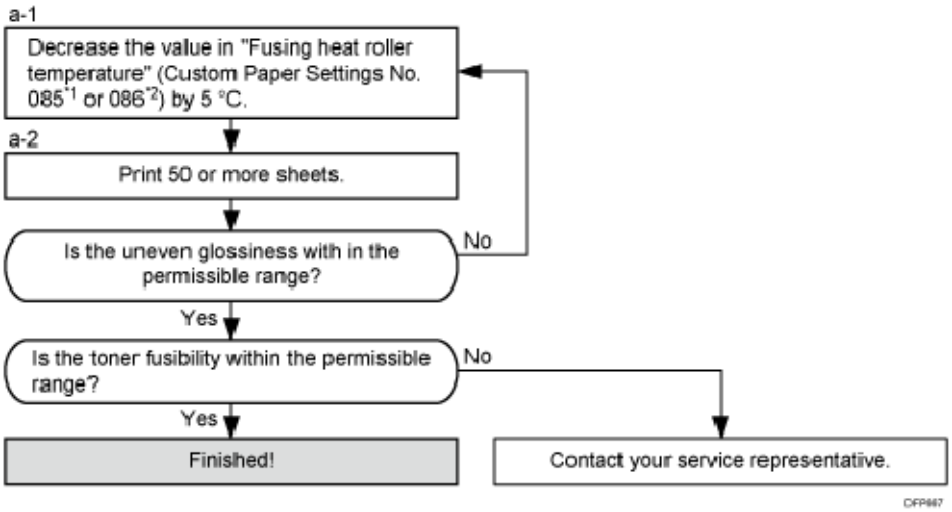


Table 1:

Settings to adjust	What to do
090: [Adj Fsng Tmp to Trnsf Ppr: Ppr: Qual] 092: [Adj Fsng Tmp to Trnsf Ppr:Ppr: Qual: S][*3]	Increase the value by 1.
093: [Adjust Adding Fusing Temperature 1] 094: [Adjst Addng Fusng Tempratre 1: Special][*3]	Set to Set to 0 degrees.
095: [Adjust Adding Fusing Temperature 2] 096: [Adjst Addng Fusng Tempratre 2: Special][*3]	When 127: [Process Speed Setting: Productivity] or 128: [Process Speed Setting: Quality] in [Advanced Settings] for the custom paper you are using is set to [High] or [Middle], set the value to 15 degrees. When 127: [Process Speed Setting: Productivity] or 128: [Process Speed Setting: Quality] is set to [Low], set the value to 5 degrees.

Image Quality Problem: Full Page

Settings to adjust	What to do
131: [Rdc. Init. CPM: Low Tmp. Envir.: Prod.][*2] 132: [Rdc. Init. CPM: Low Tmp. Envir.: Qual.][*1]	Set to [Reduce Level 3].
133: [Rdc. In. CPM: N./H. Temp. Envr.: Prod.][*2] 134: [Rdc. In. CPM: N./H. Temp. Envr.: Qual.][*1]	Set to [Reduce Level 3].

*1: Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner

*2: Printing in full color/Printing in black and white/Printing in full color including the clear toner while the special color is not set to high quality

*3: Special color mode is available for Pro C7100X, Pro C7110X, Pro C7100SX, and Pro C7110SX.

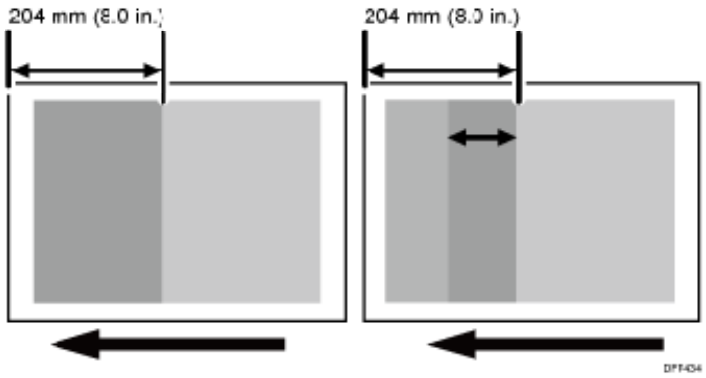
Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.
- Check the toner fusibility as follows:
  - The printed image does not come off.
  - The toner does not come off even if it is lightly rubbed by a nail.
  - The toner does not come off even if it is rubbed by the cloth for cleaning the contact glass.

Uneven Gloss: Thick Paper

When duplex printing is performed on thick paper, uneven glossiness occurs in the area 204 mm from the leading edge of paper.

Image Quality Problem: Full Page



Cause:

This may occur if:

- Paper with a thickness equivalent to Paper Weight 7 or 8 is used
- Duplex printing

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

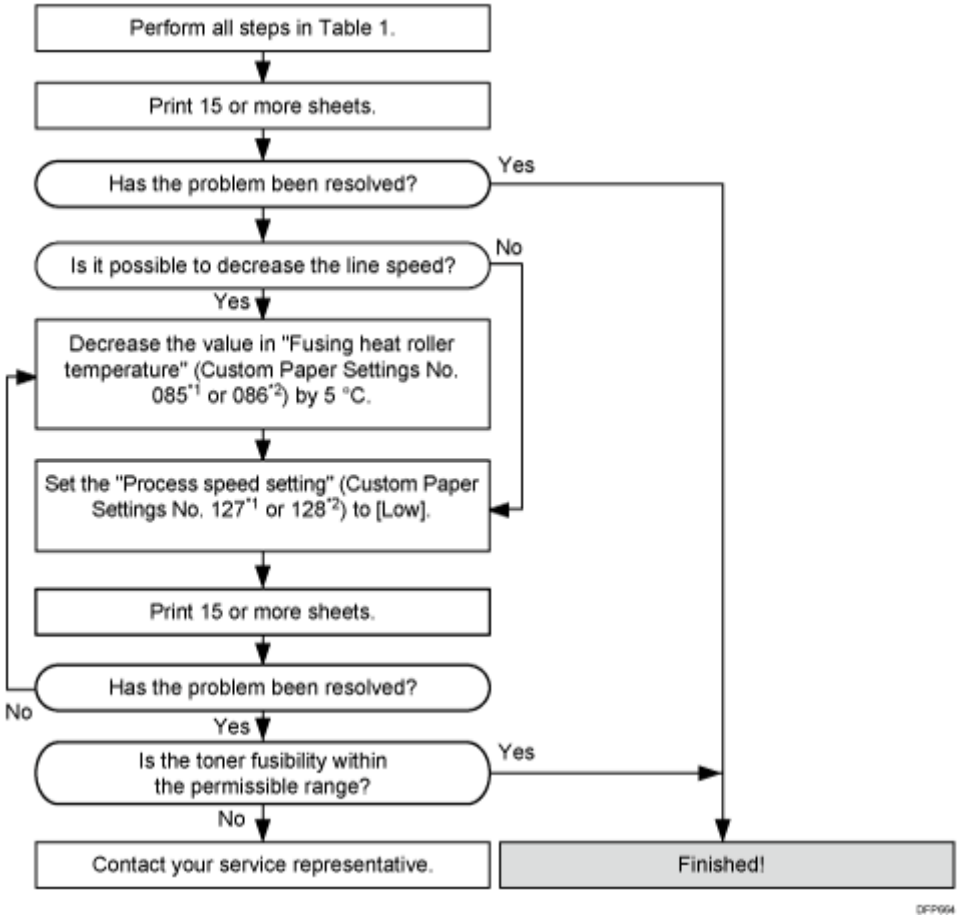


Table 1:

Settings to adjust	What to do
090: [Adj Fsng Tmp to Trnsf Ppr: Ppr: Qual] 092: [Adj Fsng Tmp to Trnsf Ppr:Ppr: Qual: S]*3	Increase the value by 1.
093: [Adjust Adding Fusing Temperature 1] 094: [Adjst Addng Fusng Tempratre 1: Special]*3	Set to 0 degrees.

Settings to adjust	What to do
095: [Adjust Adding Fusing Temperature 2] 096: [Adjst Addng Fusng Tempratre 2: Special][*3]	When 127: [Process Speed Setting: Productivity] or 128: [Process Speed Setting: Quality] in [Advanced Settings] for the custom paper you are using is set to [High] or [Middle], set the value to 15 degrees. When 127: [Process Speed Setting: Productivity] or 128: [Process Speed Setting: Quality] is set to [Low], set the value to 5 degrees.
131: [Rdc. Init. CPM: Low Tmp. Envir.: Prod.][*2] 132: [Rdc. Init. CPM: Low Tmp. Envir.: Qual.][*1]	Set to [Reduce Level 3].
133: [Rdc. In. CPM: N./H. Temp. Envr.: Prod.][*2] 134: [Rdc. In. CPM: N./H. Temp. Envr.: Qual.][*1]	Set to [Reduce Level 3].

*1: Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner

*2: Printing in full color/Printing in black and white/Printing in full color including the clear toner while the special color is not set to high quality

*3: Special color mode is available for Pro C7100X, Pro C7110X, Pro C7100SX, and Pro C7110SX.

Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.
- Check the toner fusibility as follows:
  - The printed image does not come off.
  - The toner does not come off even if it is lightly rubbed by a nail.
  - The toner does not come off even if it is rubbed by the cloth for cleaning the contact glass.

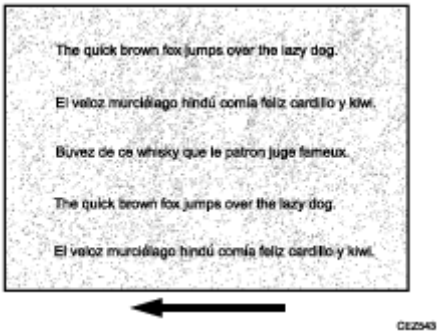
Dirtied Printouts

Dirty Background

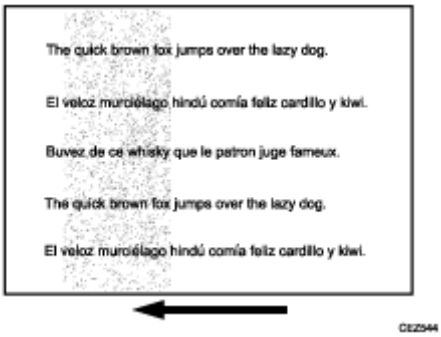
Random "powdered" dots appear, creating a dirty background.

The background may be partially or completely stained.

Completely stained background



Partially stained background



Cause:

This may occur at high temperature and humidity or when solid fills covering small areas is continuously printed.

Solution:

1. **If a message prompting replacement of a unit has appeared, replace the unit.**
2. **In the [Machine: Maintenance] group on the [Adjustment Settings for Skilled Operators] menu, execute 0502: [Execute Process Initial Setting].**
3. **Print the image. Has the problem been resolved?**

Yes	Finished!

No	Execute 0515: [Execute Developer Refreshing].

4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

5. **Check 0510: [Temperature / Humidity outside the Machine]. Is the temperature 27°C or higher? Is the humidity 80% or higher?**

Yes	Go to the next step.
No	Contact your service representative.

6. **In the [Machine: Image Quality] group on the [Adjustment Settings for Skilled Operators] menu, set the value for all items to "1" in 0209: [Adjust PCU Potential].**
7. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Steps 6 to 7. If the problem persists even though you have set to 5, contact your service representative.

Note

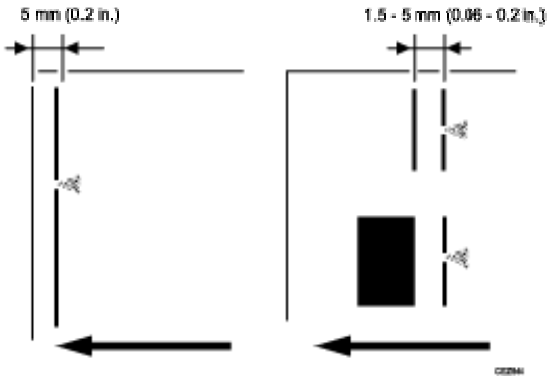
- After performing the solution, it is recommended to perform the color calibration of the external controller.

Toner Scattering: Lines

Parts of a line exhibit scatter.

This may occur in a line that is 5 mm (0.2 inches) or less from the leading edge, or in a line that is 1.5 to 5 mm (0.06 to 0.2 inches) from an image on the side of the image facing the trailing edge.

Image Quality Problem: Full Page



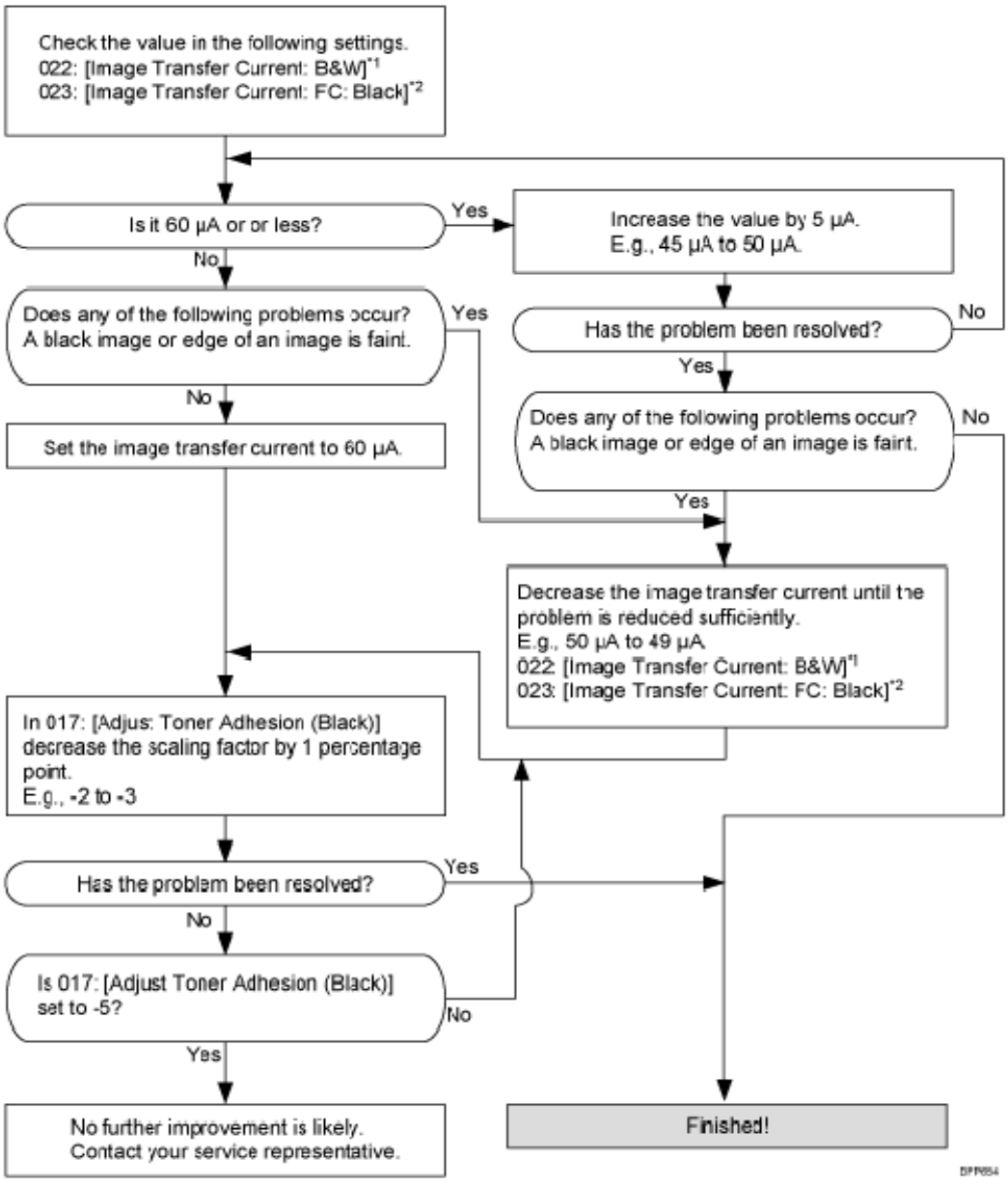
Cause:

This may occur when lines on coated or other slippery paper is printed.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:



*1: Black-and-white printing

*2: Other than black-and-white printing

Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.

Toner Scattering: Trailing Edge

Toner blasting occurs at a part of a line or character in an area between 8 and 13 mm (0.3 and 0.5 inches) from the trailing edge of the paper and the area approximately 20 mm (0.8

inches) from the left edge.

Cause:

During paper transfer, jitter is produced when the trailing edge of paper passes the paper feed guide, resulting in blasting of part of the toner forming characters or lines.
This may occur if paper with a thickness equivalent to Paper Weight 4 or higher is used.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

<Printing in black and white>

1. **In [Advanced Settings] for the custom paper you are using, select 022: [Image Transfer Current: B&W].**
2. **Check the present value. Is it lower than 50 μA?**

Yes	Carry out all of the following: ▪ Increase the value by 5 μA in 022: [Image Transfer Current: B&W]. ▪ Set 033: [Paper Transfer Current; Trail Edge: B&W] to "200%". ▪ Set 034: [Ppr Transfer Current Trail Edg Dist: BW] to "30 mm".
No	No further improvement is likely. Contact your service representative.

3. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Steps 1 to 3. If the problem persists even though you have increased the value to 50 μA, contact your service representative.

<Full color printing or full color + special color>

1. **In [Advanced Settings] for the custom paper you are using, select 023: [Image Transfer Current: FC: Black].**
2. **Check the present value. Is it lower than 50 μA?**

Yes	Carry out all of the following: ▪ Increase the value by 5 μA in 023: [Image Transfer Current: FC: Black]. ▪ Set 041: [Paper Transfer Current; Trail Edge: FC] to "200%". ▪ Set 042: [Ppr Transfer Current Trail Edg Dist: FC] to "30 mm".
No	No further improvement is likely. Contact your service representative.

3. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Steps 1 to 3. If the problem persists even though you have increased the value to 50 μA, contact your service representative.

<Printing in special color only>

1. **In [Advanced Settings] for the custom paper you are using, select [Image Transfer Current: Special].**
2. **Check the present value. Is it lower than 50 μA?**

Yes	Carry out all of the following: ▪ Increase the value by 5 μA in 028: [Image Transfer Current: Special]. ▪ Set 047: [Paper Transfer Current; Trail Edge: S] to "200%". ▪ Set 048: [Ppr Transfer Current Trail Edg Dist: S] to "30 mm".
No	No further improvement is likely. Contact your service representative.

3. Print the image. Has the problem been resolved?

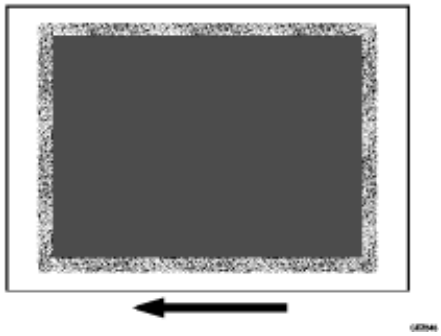
Yes	Finished!
No	Repeat Steps 1 to 3. If the problem persists even though you have increased the value to 50 μA, contact your service representative.

Note

- Changing the image transfer current may worsen the image density fluctuation.
- After performing the solution, it is recommended to perform the color calibration of the external controller.
- Special color mode is available for Pro C7100X, Pro C7110X, Pro C7100SX, and Pro C7110SX.

Toner Scattering: Around a Solid Fill Image

Toner is scattered around a solid-fill print.



For details, see page 65 "White Spots/Toner Blasting".

Stained Paper Edges

Solution:

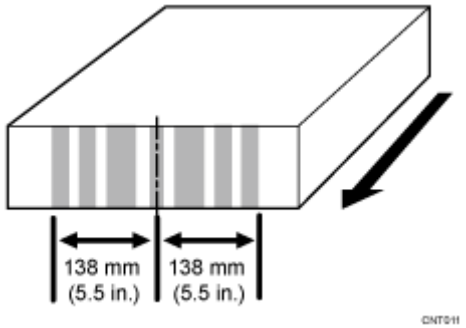
If the paper edges are stained, carry out the procedure in page 129 "Stained Paper Edges (1)", page 129 "Stained Paper Edges (2)", page 130 "Stained Paper Edges (3)", page 131 "Stained Paper Edges (4)", or page 131 "Stained Paper Edges (5)".

If the problem persists, proceed to the solution in page 17 "Improving Fusibility".

Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.

Stained Paper Edges (1)



Cause:

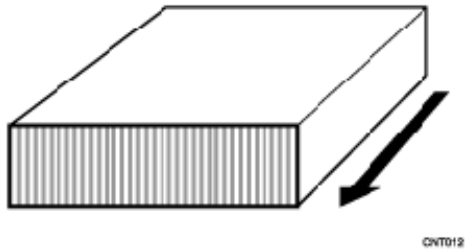
The paper feed rollers in the machine's left drawer are stained.

Solution:

Clean the paper feed rollers in the machine's left drawer.

For details about cleaning the exit rollers, see page 169 "Cleaning the Paper Feed Path".

Stained Paper Edges (2)



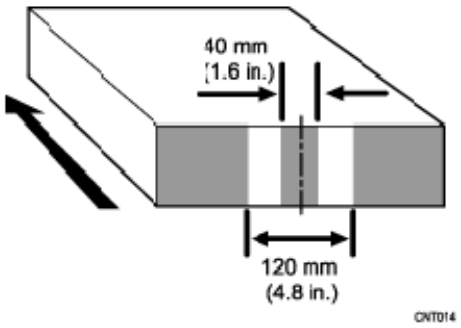
Cause:

The antistatic brushes in the exit transport and invert transport of the drawer are stained or the anti-static brushes in Finisher SR5050/SR5060 are stained.

Solution:

For details about cleaning, see page 169 "Cleaning the Paper Feed Path".

Stained Paper Edges (3)



Cause:

The paper feed speed of the decurler unit is too high.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

You can lessen the problem by decreasing the paper feed speed of the decurler unit.

1. **In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, check the present degree of decurling (Off, Weak, or Strong) in 0304: [Adjust Paper Curl].**
2. **In [Advanced Settings] for the custom paper you are using, adjust the paper feed speed of the decurler unit.**
   - If the degree of decurling is set to "Off", reduce the value in 0105: [Decurler Feed Speed Adj: Curl Adj Off] by 0.5%.
   - If the degree of decurling is set to "Weak", reduce the value in 0106: [Decurler Feed Speed Adj: Curl Adj Weak] by 0.5%.
   - If the degree of decurling is set to "Strong", reduce the value in 0107: [Decurler Feed Speed Adj: Curl Adj Strg] by 0.5%.
3. **Print the image. Has the problem been resolved?**

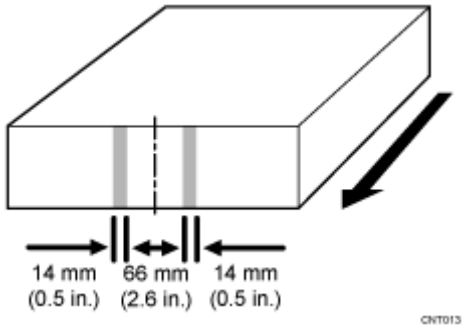
Yes	Finished!

No	Keep decreasing the value by 0.5% until the problem is resolved. If the problem persists even though the setting has reached its minimum value, contact your service representative.

Note

- Decreasing the paper feed speed of the decurler unit may result in creases, scratches, or paper jams if thin paper is used.

Stained Paper Edges (4)



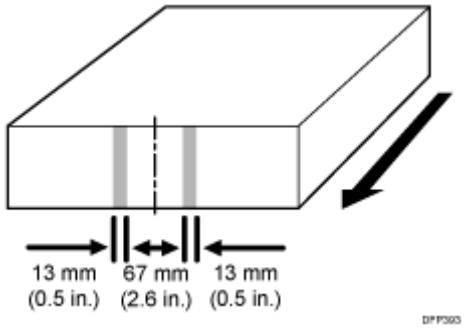
Cause:

The paper transport rollers or guide plates in the buffer pass unit are stained.

Solution:

For details about cleaning, see page 192 "Cleaning the Paper Path in the Buffer Pass Unit".

Stained Paper Edges (5)



Cause:

When a particularly dense image is printed, the paper feed rollers may become stained with toner and the paper edges may in turn be stained by the toner on the paper feed rollers.

Image Quality Problem: Full Page

Solutions:

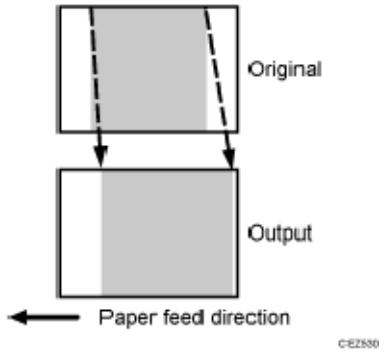
Clean the paper feed rollers.

For details about cleaning the paper feed roller, see page 169 "Cleaning the Paper Feed Path".

Disturbed Image

Stretched Image

The leading edge margin is too wide and the image has stretched lengthwise.



Cause:

The paper feed speed of the transfer timing roller is too low.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

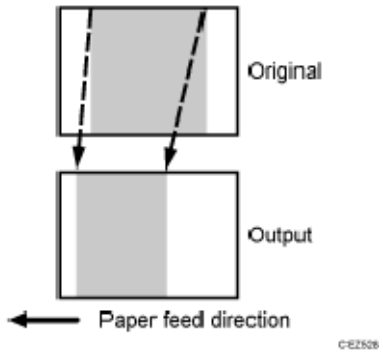
Increase the feed speed of the transfer timing roller.

1. **In [Advanced Settings] for the custom paper you are using, select 015: [Transfer Timing Roller Feed Speed Adj] and increase the value by 0.1%.**
2. **Print the image. Has the problem been resolved?**

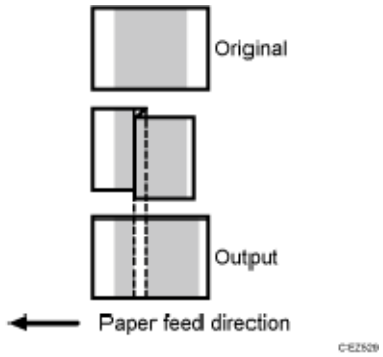
Yes	Finished!
No	Keep increasing the value by 0.1% until the problem is resolved. If the problem persists even though you have increased the value by 1.0%, contact your service representative.

Shrunken Image

The leading edge margin is too narrow and the image has shrunk lengthwise.



The paper has creased and no print appears where the crease has occurred.



Cause:

The paper feed speed of the transfer timing roller is too high.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

Decrease the feed speed of the transfer timing roller.

1. **In [Advanced Settings] for the custom paper you are using, select 015: [Transfer Timing Roller Feed Speed Adj] and reduce the value by 0.1%.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!

No	Keep decreasing the value by 0.1% until the problem is resolved. If the problem persists even though you have decreased the value by 1.0%, contact your service representative.

Image Skew

DFP437

For details, see page 154 "Paper Skew".

Others

Insufficient Gloss: Clear Image

Blurred images appear when printing in clear mode.

Normal

Blurred

Cause:

This may occur if:

- The fusing temperature is low
- The image is not glossy enough

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

1. **In [Advanced Settings] for the custom paper you are using, adjust the fusing heat**

roller temperature.

<Printing in full color/Printing in full color including the clear toner while the special color is not set to high quality>

Increase the value in 085: [Fusing Heat Roller Temp. Adjust.: Prod.] by 5°C

<Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

Increase the value in 086: [Fusing Heat Roller Temp. Adjust.: Qual.] by 5°C

2. **Print the image. Has the problem been resolved?**

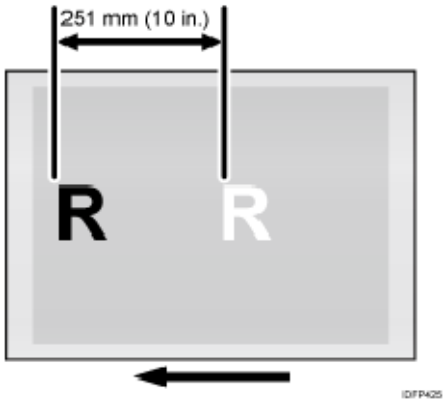
Yes	Finished!
No	Repeat Steps 1 to 2. If the problem persists even if you increase the temperature to 185°C, contact your service representative.

Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.

Milky Transparency

When printing is performed on a transparent film, white ghosting occurs all over the film. Depending on the printed image, ghosting of the image pattern may occur.



Cause:

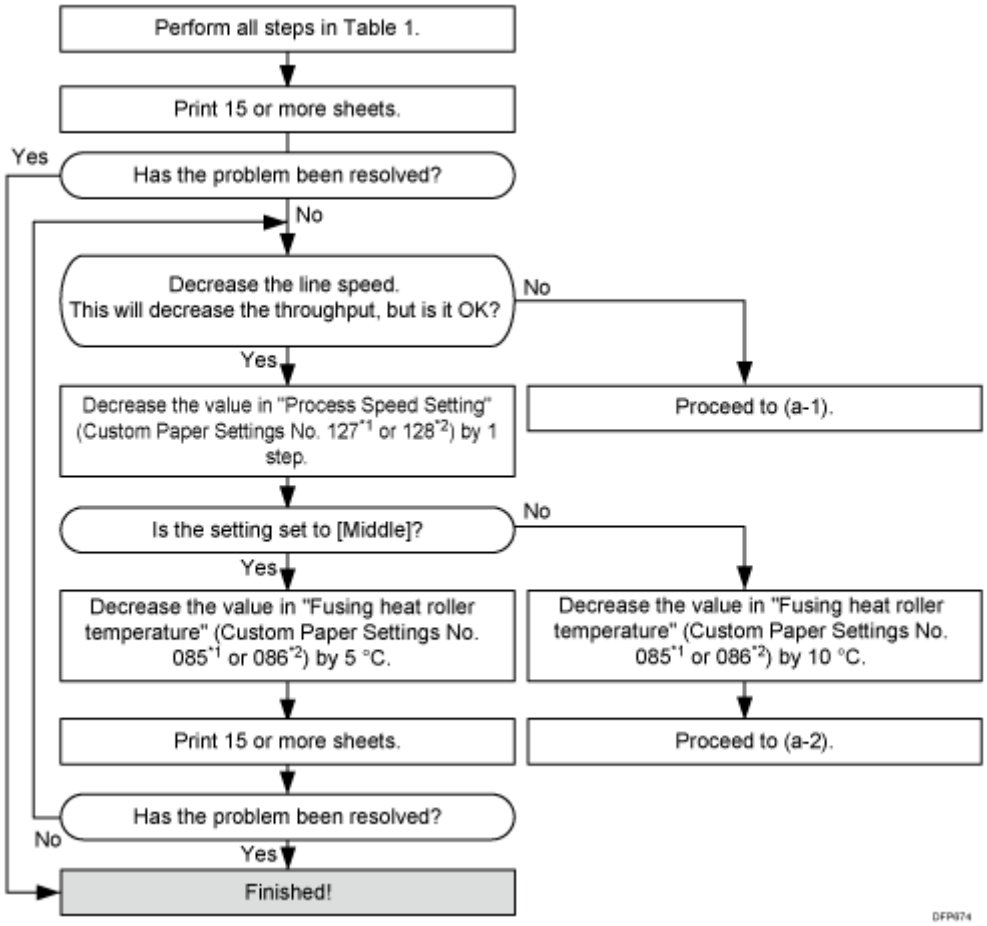
Because of the heat on the fusing unit, the surface profile of the fusing belt may be transferred to the transparent film, causing white ghosting on the part of the transparent film where images are not printed.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

When printing with the clear toner and the special color set to high quality, or when printing with the white toner, adjust settings with "Quality".



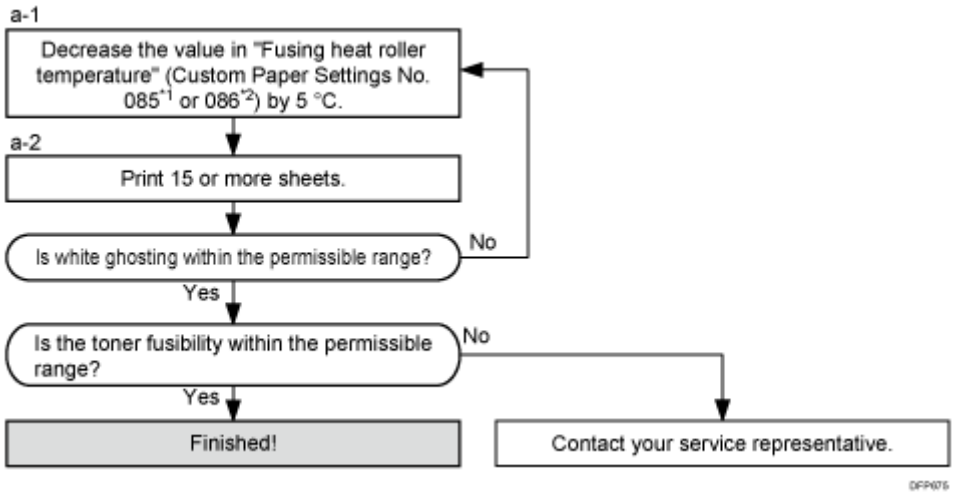


Table 1:

Settings to adjust	What to do
090: [Adj Fsng Tmp to Trnsf Ppr: Ppr: Qual] 092: [Adj Fsng Tmp to Trnsf Ppr: Ppr: Qual: S]*3	Increase the value by 1.
093: [Adjust Adding Fusing Temperature 1] 094: [Adjst Addng Fusng Tempratre 1: Special]*3	Set to 0 degrees.
095: [Adjust Adding Fusing Temperature 2] 096: [Adjst Addng Fusng Tempratre 2: Special]*3	When 127: [Process Speed Setting: Productivity] or 128: [Process Speed Setting: Quality] in [Advanced Settings] for the custom paper you are using is set to [High] or [Middle], set the value to 15 degrees. When 127: [Process Speed Setting: Productivity] or 128: [Process Speed Setting: Quality] is set to [Low], set the value to 5 degrees.

Settings to adjust	What to do
131: [Rdc. Init. CPM: Low Tmp. Envir.: Prod.][*2] 132: [Rdc. Init. CPM: Low Tmp. Envir.: Qual.][*1]	Set to [Reduce Level 3].
133: [Rdc. In. CPM: N./H. Temp. Envr.: Prod.] [*2] 134: [Rdc. In. CPM: N./H. Temp. Envr.: Qual.] [*1]	Set to [Reduce Level 3].

*1: Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner

*2: Printing in full color/Printing in black and white/Printing in full color including the clear toner while the special color is not set to high quality

*3: Special color mode is available for Pro C7100X, Pro C7110X, Pro C7100SX, and Pro C7110SX.

Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.
- Check the toner fusibility as follows:
  - The printed image does not come off.
  - The toner does not come off even if it is lightly rubbed by a nail.
  - The toner does not come off even if it is rubbed by the cloth for cleaning the contact glass.

Troubleshooting Paper Delivery Problems

Frequent Paper Misfeeds

Depending on the cause of the problem, do one of the following:

Have you ruffled the paper sufficiently?

Double feeding may result if the paper is not ruffled properly.

Remove the paper, ruffle it, and reload it.

For details about ruffling the paper, see "Fanning the Paper", About This Machine.

Coated or another type of unsupported paper is loaded in the machine's tray.

Load paper not supported by the machine's paper tray (Trays 1-2) in the wide LCT or another paper tray supporting the paper.

For details about the size and type of paper that can be loaded in the paper trays, see "Recommended Paper Sizes and Types", About This Machine.

The side fences in the paper tray are too close together.

If the distance between the side fences is less than the paper width, it may interfere with paper transfer and so cause paper misfeeds.

Adjust the side fences to match the paper width.

When you close the paper tray, the side fences may become misaligned due to the weight of the paper. To prevent this, close the paper tray slowly.

For details about loading paper, see "Loading Paper", About This Machine.

The side fences in the paper tray are too far apart.

If the side fences are too far apart, paper misfeeds may occur due to wrong paper size detection.

Adjust the side fences to match the paper width.

For details about loading paper, see "Loading Paper ", About This Machine.

The paper size/orientation/type is not specified correctly.

In tray paper settings, specify the size, orientation, and type of the paper in use.

For details about tray paper settings, see "Changing Tray Paper Settings", Paper Settings.

Too many sheets of paper are loaded in the paper tray.

When loading paper, do not exceed the limit.

For details about how many sheets can be loaded in the paper trays, see "Recommended Paper Sizes and Types", About This Machine.

The edges of the sheets are rough.

Turn the sheets the other way up or smooth the edges before loading.

Sheets are curled or wavy.

- Flatten curls and waviness before loading paper.
- Turn the sheets the other way up or smooth the edges before loading.
- Stacking too many sheets may cause the sheets on top to curl greatly. If this happens, reduce the number of stacked sheets.

Sheets absorbed moisture and became limp.

Sheets that will not be used for a long time should be protected from moisture by, for example, storing them in a sealed bag.

If the machine is plugged in, the heater inside the paper tray starts operating when the main power is off to prevent sheets from absorbing moisture.

Depending on the country of use, the paper tray heater may not be supplied. For details, contact your service representative.

When using thick paper or slippery paper.

Enable the Pickup Assist setting. You can specify the Pickup Assist setting for the machine's paper trays (Trays 1 and 2), bypass tray, and the three-tray wide LCT (LCIT RT5090).

<If custom paper is used>

In [Advanced Settings] for the custom paper you are using, set 110: [Pickup Assist Setting] to [On].

<If custom paper is not used>

In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, set 0303: [Pickup Assist Setting] to [On].

The paper feed sensor is stained with paper dust.

Clean the part of the paper feed sensor where the paper misfeed is detected.

For details about cleaning the paper feed sensor, see page 169 "Cleaning the Paper Feed Path".

The transfer roller is stained, affecting paper delivery.

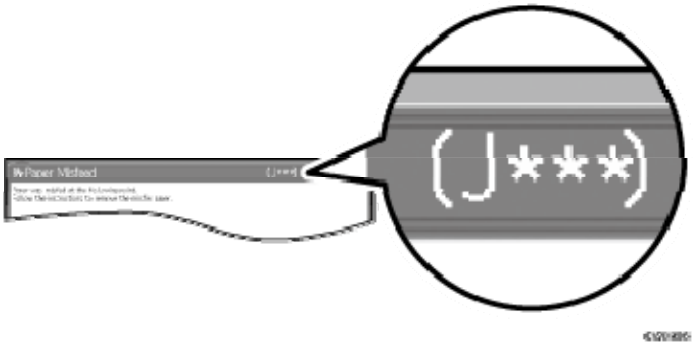
Clean the part of the paper transport roller where the paper misfeed is detected.

For details about cleaning the paper transport roller, see page 169 "Cleaning the Paper Feed Path".

Messages Reporting Paper Misfeeds

Paper misfeeds are reported by messages prefixed with problem codes.

Resolve the problem according to the code.



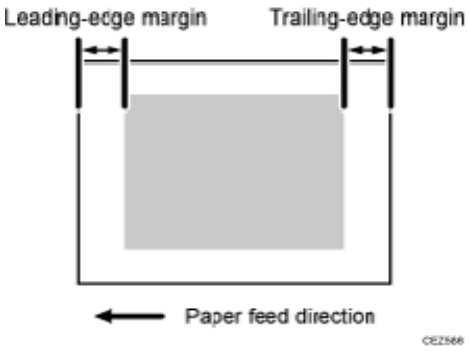
If (J033) Appears (1)

Cause:

Paper is jammed in the fusing belt stripper plate.

This may occur if:

- Thin or coated paper is used
- A solid image that consumes a lot of toner is printed at the leading edge
- The leading/trailing edge margin is too narrow



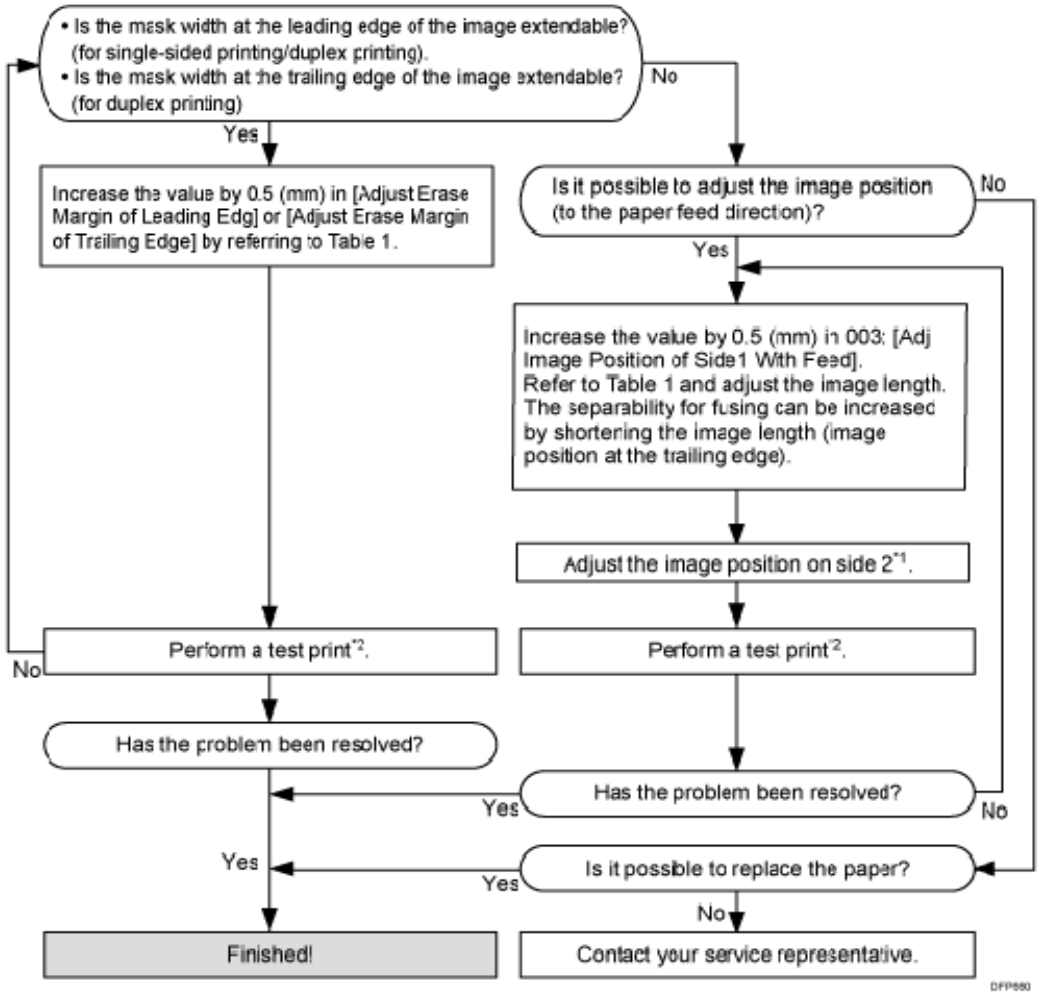
Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

Increase the leading/trailing edge margin.

By increasing the margin, paper can separate more easily from the fusing belt stripper plate.



*1: For details, see page 230 "Adjusting the Image Position of the Either Side of the Paper".

*2: Print a full-page, half-tone sheet of A3, DLT or longer paper for each of cyan, magenta, and yellow, and black.

Table 1:

Print Mode	Settings to adjust
Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white tone	010: [Adj. Erase Margin of Leadg. Edge: Qual.] 012: [Adj. Erase Marg. Of Trailg. Edge: Qual.]
Printing in full color/Printing in black and white/Printing in full color including the clear toner while the special color is not set to high quality	009: [Adj. Erase Margin of Leadg. Edge: Prod.] 011: [Adj. Erase Margin of Trailg. Edge: Prod.]

If (J033) Appears (2)

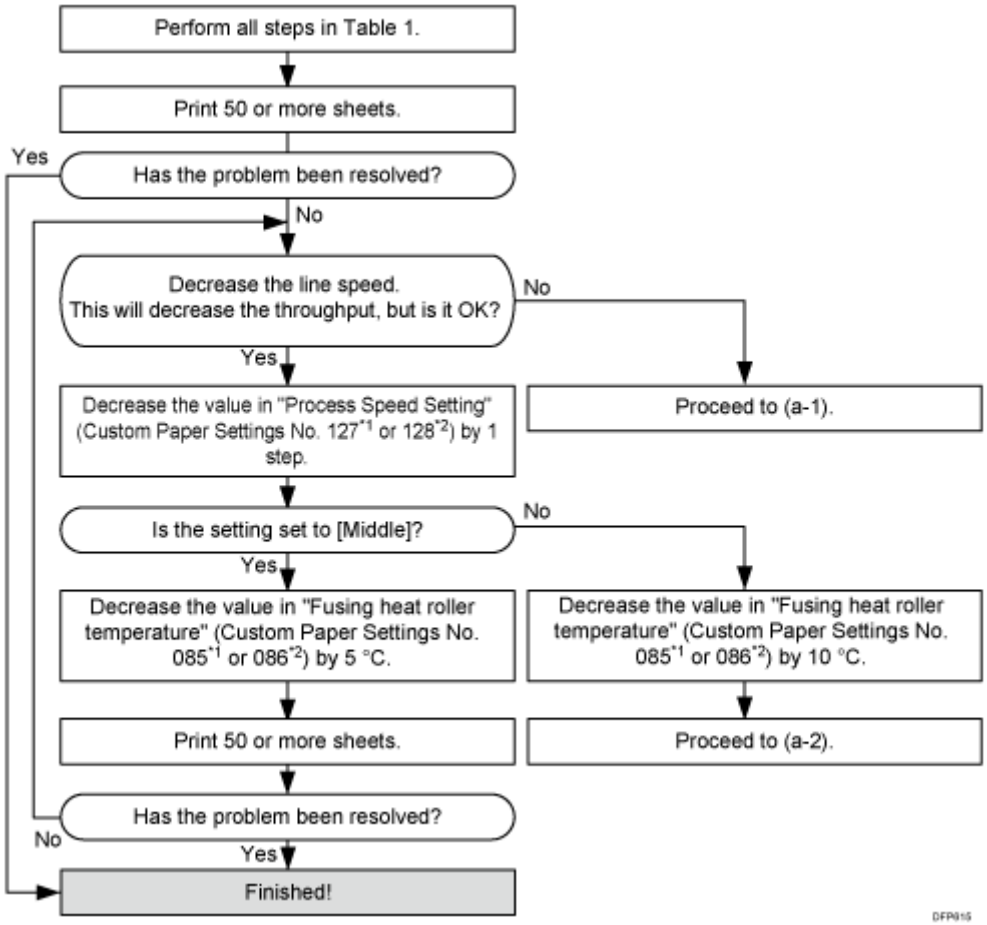
Cause:

If an image covering a wide area is printed, the paper may stick to the fusing belt when the paper is separated at the fusing unit exit, resulting in a paper jam.
If perforated and creased label paper is printed, the paper may stick to the fusing belt, causing a paper jam.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solutions:



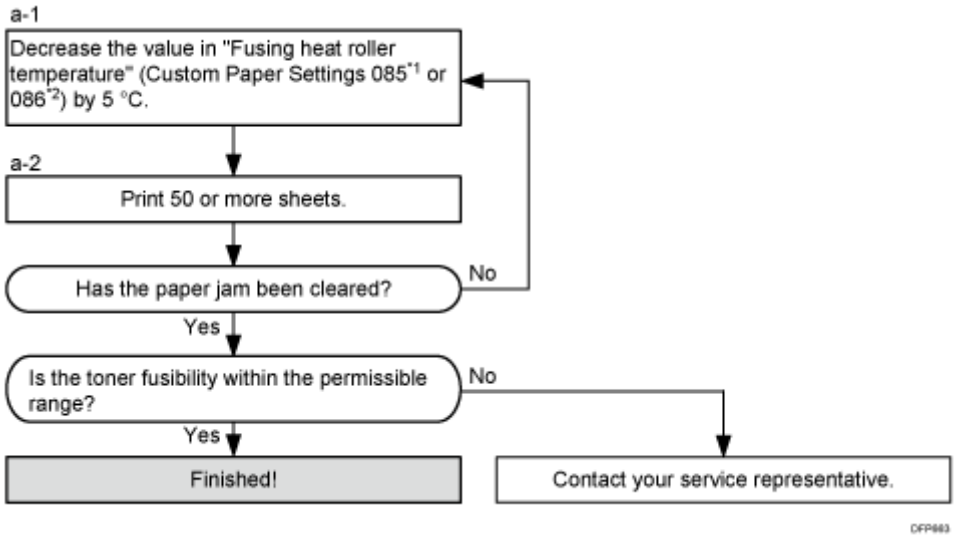


Table 1:

Settings to adjust	What to do
090: [Adj Fsng Tmp to Trnsf Ppr: Ppr: Qual] 092: [Adj Fsng Tmp to Trnsf Ppr: Ppr: Qual: S][*3]	Increase the value by 1.
093: [Adjust Adding Fusing Temperature 1] 094: [Adjst Addng Fusng Tempratre 1: Special][*3]	Set to 0 degrees.
095: [Adjust Adding Fusing Temperature 2] 096: [Adjst Addng Fusng Tempratre 2: Special][*3]	When 127: [Process Speed Setting: Productivity] or 128: [Process Speed Setting: Quality] in [Advanced Settings] for the custom paper you are using is set to [High] or [Middle], set the value to 15 degrees. When 127: [Process Speed Setting: Productivity] or 128: [Process Speed Setting: Quality] is set to [Low], set the value to 5 degrees.
131: [Rdc. Init. CPM: Low Tmp. Envir.: Prod.][*2] 132: [Rdc. Init. CPM: Low Tmp. Envir.: Qual.][*1]	Set to [Reduce Level 3].
133: [Rdc. In. CPM: N./H. Temp. Envr.: Prod.] [*2] 134: [Rdc. In. CPM: N./H. Temp. Envr.: Qual.] [*1]	Set to [Reduce Level 3].

*1: Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner

*2: Printing in full color/Printing in black and white/Printing in full color including the clear toner while the special color is not set to high quality

*3: Special color mode is available for Pro C7100X, Pro C7110X, Pro C7100SX, and Pro C7110SX.

Note

- After performing the solution, it is recommended to perform the color calibration of

the external controller.

- Check the toner fusibility as follows:
  - The printed image does not come off.
  - The toner does not come off even if it is lightly rubbed by a nail.
  - The toner does not come off even if it is rubbed by the cloth for cleaning the contact glass.
- When using perforated label paper, make sure it is not creased.

If (J033/J082) Appears

Cause:

A paper feed error occurred.

This may occur if:

- Paper with a thickness equivalent to Paper Weight 7 is used
- Paper with its grain parallel to the paper feed direction is used.
- Paper is curled backward

Solution:

1. **Turn the paper in the paper tray upside down.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Reload with new paper.

3. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Reload the paper to be delivered from its long edge.

4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Contact your service representative.

If (J034) Appears

For details, see page 143 "If (J033) Appears (1)" and see page 145 "If (J033) Appears (2)".

If (J080) Appears

Cause:

The paper feed is delayed.

This may occur if slippery paper with a low paper-to-paper friction coefficient is used.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

1. **In [Advanced Settings] for the custom paper you are using, set 122: [Regist Jam Detection with Feed Dir] to [Off].**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Contact your service representative.

Note

- When you set 122: [Regist Jam Detection with Feed Dir] to [Off], the printed image may become misaligned at the leading edge.

If (J083) Appears

For details, see page 143 "If (J033) Appears (1)" and see page 145 "If (J033) Appears (2)".

If (J097) Appears

Cause:

This may occur if:

- Paper is skewed. For details see, page 154 "Paper Skew".

- Skew may be wrongly detected. For details see, page 155 "Wrong Detection of Skew".

If (J098) Appears

Cause:

Sheets cannot be positioned properly by image position adjustment.

Solution:

Depending on the cause of the problem, do one of the following:

The side fences in the paper trays are not positioned correctly.

Adjust the side fences to match the paper width.

When you close the paper tray, the side fences may become misaligned due to the weight of the paper. To prevent this, close the paper tray slowly.

For details about loading paper, see "Loading Paper", About This Machine.

The paper size/orientation/type is not specified correctly.

In tray paper settings, specify the size, orientation, and type of the paper in use.

For details about tray paper settings, see "Changing Tray Paper Settings", Paper Settings.

Sheets of mixed type, thickness, or color are loaded in the paper tray.

Load identical sheets in the paper tray.

When printing from a tray containing sheets of mixed color, you can prevent paper misfeeding by specifying the following settings:

<If custom paper is used>

1. In [Advanced Settings] for the custom paper you are using, set 120: [Illumin. Mode for Color Paper Detctn.] to [Long Time].
2. Print the image.
3. If the problem persists, in the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, change the value in 0306: [Registration Jam Detection Level with Across Feed Direction].
4. Keep increasing the value by 1.0 from the present value applied to the paper tray.
5. Print the image.
6. In [Advanced Settings] for the custom paper you are using, set 013: [Deactivate Image Position Adjustment] to [On].
7. Print the image.
8. In [Advanced Settings] for the custom paper you are using, set 014: [Skew Detection] to [Off].

Colored paper or transparencies are loaded in the paper tray.

Paper edges may not have been detected correctly.

Adjust the color paper edge detection.

<If custom paper is used>

1. Increase the value in 121: [Color Paper Edge Detection Adjustment] (Enter a large value around 1.00.).
2. Print the image. Has the problem been resolved?

Yes	Finished!
No	Keep increasing the value until the problem is resolved. If the problem persists even though you have adjusted the setting to its maximum, go to the next step.

3. Set 120: [Illumin. Mode for Color Paper Detctn.] to [Long Time].
4. Print the image. Has the problem been resolved?

Yes	Finished!
No	Keep decreasing the value until the problem is resolved. If the problem persists even though you have adjusted the setting to its minimum values, go to the next step.

5. In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, adjust the value in 0306: [Registration Jam Detection Level with Across Feed Direction].
6. Print the image. Has the problem been resolved?

Yes	Finished!
No	Keep increasing the value by 1.0 from the present value applied to the paper tray.

7. Set 013: [Deactivate Image Position Adjustment] to [On].
8. Print the image. Has the problem been resolved?

Yes	Finished!
No	Go to the next step.

9. Set 0104: [Skew Detection] to [On].
10. Print the image. Has the problem been resolved?

Yes	Finished!
No	Contact your service representative.

If (J099) Appears

Cause:

This may occur if:

- Double feeding has occurred. For details, see page 156 "Double Feeding".
- Double feeding may be wrongly detected. For details, see page 157 "Wrong Detection of Double Feeding".

If (J129) Appears

Cause:

Misfeeding of sheets other than the cover has occurred in the tray for booklet folding.

This may occur if:

- Attempted booklet folding of paper with high image density at the folds.
- Attempted booklet folding of a bundle of 15 or more sheets.
- The temperature or humidity is low.

Solution:

1. **Press [Dup./ Combine/ Series] on the copier screen.**
2. **Press [Book].**
3. **Select [1 Sided] or [2 Sided] for [Original:].**
4. **Select [Magazine].**
5. **Press [OK].**
6. **Press [Edit / Color].**

7. **Press [Margin Adj.].**
8. **Specify left margin on the front side to 5 mm and right margin on the back side to 5 mm.**

If (J430/J431/J445/J446/J460/J461) Appears

This indicates a paper misfeed when using the two-tray wide LCT (Vacuum Feed LCIT RT5100).

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

The factory- set airflow of the wide LCT may not be strong enough to separate the sheets. Increase the airflow.

1. **If the jam code (J430/J431/J445/J446/J460/J461) appears more than 3 times, set 118: [Paper Feed Mode (Adjust Fan Level)] to [Moderate Nonfdg Red. (Higher)] in [Advanced Settings] for the custom paper you are using.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Step 2. If the jam code appears more than 3 times, set 118: [Paper Feed Mode (Adjust Fan Level)] to [Max Nonfdng Reduc. (Highest)].

3. **Set 117: [Switch Paper Load Upper Limit] to [High].**
4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	If a few sheets in the paper tray are misfed when thick paper is fed (e.g., 250 gsm or greater), attach the tab sheet holder.

5. **If the problem persists, contact your service representative.**

Troubleshooting Image Quality Problems

Paper Skew

Depending on the cause of the problem, do one of the following:

The side fences in the paper tray are too far apart.

If the side fences are too far apart, the paper may be skewed.

Adjust the side fences to match the paper width.

When you close the paper tray, the side fences may become misaligned due to the weight of the paper. To prevent this, close the paper tray slowly.

For details about loading paper, see "Loading Paper", About This Machine.

A scrap of paper or some other small fragment is jammed in the paper feed path.

Remove the fragment.

For details about cleaning the paper feed path, see page 169 "Cleaning the Paper Feed Path".

The correct degree of paper arching has not been specified.

Adjust the degree of paper arching at the registration gate.

<If using paper of Paper Weight 1 to 4>

In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, change the value in 0307: [Adjust Registration Paper Buckle].

<If using paper of Paper Weight 5 to 8>

In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, change the value in 0308: [Adjust Registration Paper Buckle (Thick Paper)].

Increase the value for the paper tray in use, and then print the image. If the problem persists even though the setting has reached its maximum value, try decreasing the setting.

If the problem persists even though you have tried the complete range of settings from minimum to maximum, contact your service representative.

The skew detection level is too low.

Increase the skew detection level.

In the [Machine: Image Position] group on the [Adjustment Settings for Skilled Operators] menu, select 0105: [Skew Detection Level] and reduce the value.

Reduce the value to increase the detection level.

This will allow the machine to report a paper misfeed and stop printing even for a slight skew.

Wrong Detection of Skew

Depending on the cause of the problem, do one of the following:

Sheets of mixed type, thickness, or color are loaded in the paper tray.

Load identical sheets in the paper tray.

Sheets of mixed color are loaded in the paper tray.

When printing from a tray containing sheets of mixed color, you can prevent paper misfeeding by specifying the following settings:

1. In the [Machine: Image Position] group on the [Adjustment Settings for Skilled Operators] menu, set 0103: [Deactivate Image Position Adjustment Across Feed Dir] to [On].
2. Disable skew detection function.

   <If custom paper is used>

   In [Advanced Settings] for the custom paper you are using, set 014: [Skew Detection] to [Off].

   <If custom paper is no used>

   In the [Machine: Image Position] group on the [Adjustment Settings for Skilled Operators] menu, set 104: [Deactivate Image Position Adjustment Across Feed Dir] to [Off].

An envelope is used.

If an envelope flap at the trailing edge is oblique, a skew may be wrongly detected when the envelope is transferred with its flap open.

Disable skew detection function.

<If custom paper is used>

In [Advanced Settings] for the custom paper you are using, set 014: [Skew Detection] to [Off].

<If custom paper is not used>

In the [Machine: Image Position] group on the [Adjustment Settings for Skilled Operators] menu, set 0104: [Skew Detection] to [Off].

The skew detection level is too high.

Decrease the skew detection level.

In the [Machine: Image Position] group on the [Adjustment Settings for Skilled Operators] menu, select 0104: [Skew Detection Level] and increase the value.

Increase the value to decrease the detection level.

Note

- Disabling the skew detection function will allow skewed printing. If this is not acceptable, contact your service representative.

Double Feeding

Depending on the cause of the problem, do one of the following:

Have you ruffled the paper sufficiently?

Double feeding may result if the paper is not ruffled properly.

Remove the paper, ruffle it, and reload it.

For details about ruffling the paper, see "Fanning the Paper", About This Machine.

The edges of the sheets are rough.

Turn the sheets the other way up or smooth the edges before loading.

Is the Pickup Assist setting enabled?

If the Pickup Assist function operates too much, it may cause double feeding with coated paper.

By disabling the Pickup Assist setting, you can prevent double feeding.

The two-tray wide LCT (Vacuum Feed LCIT RT5100) does not have the Pickup Assist function.

<If custom paper is used>

In [Advanced Settings] for the custom paper you are using, set 110: [Pickup Assist Setting] to [Off].

<If custom paper is not used>

In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, set 0303: [Pickup Assist Setting] to [Off].

Three-tray wide LCT (LCIT RT5090) is used.

- Is the airflow strong enough?

  The factory-set airflow of the wide LCT may not be strong enough to separate the sheets.

  Increase the airflow.

  <If custom paper is used>

  1. In [Advanced Settings] for the custom paper you are using, set 108: [Wide LCT Fan Setting] to [On]
  2. Increase the value in 109: [Adjust Wide LCT Fan Level].

  <If custom paper is not used>

  In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, increase the value in 0301: [Adjust Wide LCT Fan Level].

- Is the tab sheet holder attached?

  By attaching the tab sheet holder, you can prevent air from leaking at the trailing edge of the paper and improve separation.

  For details about attaching the tab sheet holder, see "About This Machine" supplied with

the machine.

Two-tray wide LCT (Vacuum Feed LCIT RT5100) is used.

The factory-set airflow of the wide LCT may not be strong enough to separate the sheets.

Increase the airflow.

1. In [Advanced Settings] for the custom paper you are using, set 118: [Paper Feed Mode (Adjust Fan Level)] to [Modrate Dble Fd Red. (Lower)].
2. If the problem persists, set 118: [Paper Feed Mode (Adjust Fan Level)] to [Max Dble Fd Reduc. (Lowest)].
3. If the problem persists, increase the value in 112: [Blower Fan] by 10%.
4. If the problem persists, increase the value an additional 10% in 112: [Blower Fan].
5. If the problem persists, set 117: [Switch Paper Load Upper Limit] to [Low].

Is the paper feed roller covered with paper dust?

Paper dust may decrease the traction of the paper feed roller and result in double feeding due to paper slippage or insufficient separation.

Cleaning the paper feed roller will restore traction and so prevent double feeding.

For details about cleaning the paper feed roller, see page 169 "Cleaning the Paper Feed Path".

For details about removing the paper feed roller, see the Replacement Guide.

The two-tray wide LCT (Vacuum Feed LCIT RT5100) does not have paper feed rollers.

Wrong Detection of Double Feeding

Depending on the cause of the problem, do one the following:

Preprinted paper is being used

The machine may wrongly detect double feeding when the sensor detects a printed part.

Disable the double feeding detection function.

<If custom paper is used>

In [Advanced Settings] for the custom paper you are using, set 119: [Double Feed Detection] to [Off].

<If custom paper is not used>

In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, set 0309: [Double Feed Detection] to [Off].

An envelope is being used.

The seams of envelopes may cause double feeds to be wrongly detected.

Disable the double feed detection.

<If custom paper is used>

In [Advanced Settings] for the custom paper you are using, set 119: [Double Feed

Detection] to [Off].

<If custom paper is not used>

In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, set 0309: [Double Feed Detection] to [Off].

Paper of Paper Weight 8 is being used.

Since super-thick paper is of low transparency, it may cause erroneous detection of double feeding.

Disable the double feeding detection function.

<If custom paper is used>

In [Advanced Settings] for the custom paper you are using, set 119: [Double Feed Detection] to [Off].

<If custom paper is not used>

In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, set 0309: [Double Feed Detection] to [Off].

Thick paper or dark colored paper is being used.

When using paper of low transparency, the machine may wrongly detect double feeding.

Disable the double feeding detection function.

<If custom paper is used>

In [Advanced Settings] for the custom paper you are using, set 119: [Double Feed Detection] to [Off].

<If custom paper is not used>

In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, set 0309: [Double Feed Detection] to [Off].

Thin paper is being used

When using paper of high transparency, the machine may wrongly detect double feeding.

Disable the double feeding detection function.

<If custom paper is used>

In [Advanced Settings] for the custom paper you are using, set 119: [Double Feed Detection] to [Off].

<If custom paper is not used>

In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, set 0309: [Double Feed Detection] to [Off].

Textured paper is being used.

Because of the difference in paper thickness at bumps and dips of embossed paper, the machine may wrongly detect double feeding.

Disable the double feeding detection function.

<If custom paper is used>

In [Advanced Settings] for the custom paper you are using, set 119: [Double Feed Detection] to [Off].

<If custom paper is not used>

In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, set 0309: [Double Feed Detection] to [Off].

Note

- Disabling double feed detection may reduce print image quality or cause blank sheets to be delivered.

Paper Misfeeding

Depending on the cause of the problem, do one of the following:

Have you ruffled the paper properly?

Not ruffling the paper properly may cause paper misfeeding.

Remove the paper, ruffle it, and reload it.

For details about ruffling paper, see "Fanning the Paper", About This Machine.

Have you ruffled the paper sufficiently?

Double feeding may result if the paper is not ruffled properly.

Remove the paper, ruffle it, and reload it.

For details about ruffling the paper, see "Fanning the Paper", About This Machine.

The side fences in the paper tray are too close together.

If the distance between the side fences is less than the paper width, it may interfere with paper transfer and so cause paper misfeeds.

Adjust the paper guides to match the paper width.

When you close the paper tray, the side fences may become misaligned due to the weight of the paper. To prevent this, close the paper tray slowly.

For details about loading paper, see "Loading Paper", About This Machine.

Special or coated paper is used.

- Is the airflow powerful enough?

  The factory-set airflow of the wide LCT may not be strong enough to separate the sheets. Increase the airflow.

  <If custom paper is used>

  1. In [Advanced Settings] for the custom paper you are using, set 108: [Wide LCT Fan Setting] to [On]
  2. Increase the value in 109: [Adjust Wide LCT Fan Level].

  <If custom paper is not used>

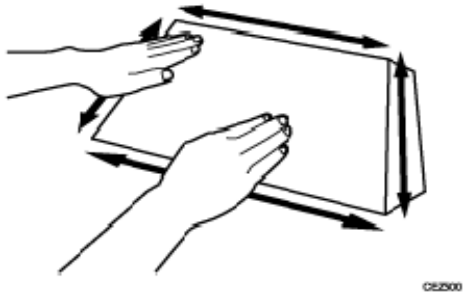
In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, increase the value in 0301: [Adjust Wide LCT Fan Level].

- Is the tab sheet holder attached?
  By attaching the tab sheet holder, you can prevent air from escaping from the trailing edge of the paper and so improve separation.
  For details about attaching the tab sheet holder, see "About This Machine" supplied with the machine.
- Is the paper feed roller covered with paper dust?
  Paper dust on the surface of coated paper may reduce the traction of the paper feed roller and cause paper misfeeding due to paper slippage or insufficient separation.
  By cleaning the paper feed roller, the frictional force can be restored so that paper misfeeding will not occur.
  For details about cleaning the paper feed roller of the wide LCT, see page 169 "Cleaning the Paper Feed Path".

An envelope is used.

Depending on the type of envelope, air trapped inside may be squeezed out when the paper feed roller picks up the envelope and cause slippage leading to a misfeed.

- Have you flattened the envelope?
  Flatten the envelope and all its edges to eliminate air before loading. If the envelope is curled, decurl it before loading.



Two-tray wide LCT (Vacuum Feed LCIT RT5100) is used.

The factory-set airflow of the wide LCT may not be strong enough to separate the sheets. Increase the airflow.

For details, see page 153 "If (J430/J431/J445/J446/J460/J461) Appears".

Other Paper Delivery Problems

Paper jam when using thick paper

Cause:

This may occur if:

- Paper transfer roller is stained
- Stiff paper is being used.
- Long grain paper is being used

Solution:

1. Clean the paper transfer roller.
2. If paper in a grain direction is used, change it to paper in a cross-grain direction.
3. For duplex printing, perform single-sided printing on each side. (Load the paper printed on one side in the paper tray again, and print on the other side.)
4. If the paper is delivered turned over, switch to delivery without turning over the paper.

If the problem persists even after performing the above solutions 1 to 4, change the paper to a size smaller than the jammed paper.

When performing duplex printing on paper smaller than 215.99 mm (8.6 inches) in length, another paper already printed on Side 2 is delivered below the separation claw, causing a paper jam.

1. Register the paper in the custom paper profile.
2. In [Advanced Settings] for the custom paper you are using, set 126: [Ppr Fd Sttg for 2 Sd Sml Siz Thckst Ppr] to [Active].

Creases in the vertical direction

Cause:

Paper with its grain parallel to the paper feed direction is used. For example, A3/DLT long grain paper is delivered, A4/LT short grain paper is delivered from its long edge, or A4/LT long grain paper is delivered from its short edge.

Solution:

Change the direction of paper grain for paper delivery.

Curling

To eliminate curling without using the decurler unit, lower the heat roller temperature.

Lowering the temperature may result in:

- Unsatisfactory fusing

- Reduced glossiness
- Stained for halftone images on uncoated paper

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.
- To use the decurler unit, specify 0304: [Adjust Paper Curl] in the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu.
- After performing the solution, it is recommended to perform the color calibration of the external controller.
- Check the toner fusibility as follows:
  - The printed image does not come off.
  - The toner does not come off even if it is lightly rubbed by a nail.
  - The toner does not come off even if it is rubbed by the cloth for cleaning the contact glass.

1. **In [Advanced Settings] for the custom paper you are using, adjust the fusing heat roller temperature.**

   <Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

   Decrease the value in 086: [Fusing Heat Roller Temp. Adjust.: Qual.] by 5°C

   <Printing in full color/Printing in full color including the clear toner while the special color is not set to high quality>

   Decrease the value in 085: [Fusing Heat Roller Temp. Adjust.: Prod.] by 5°C
2. **Print a full-page solid-fill image. Has the problem been resolved?**

Yes	Finished!
No	Further reduce the value by 5°C until the problem is resolved. Adjust the temperature while checking fusibility. If the problem persists, contact your service representative.

If the curl cannot be straightened even by connecting the decurler unit

If the curl cannot be straightened even by connecting the decurler unit, do as follows.

1. **Turn the sheets the other way up.**
2. **In the [Machine: Paper Feed/ Output] group on the 0304: [Adjustment Settings for**

Skilled Operators] menu, set of 0304: [Adjust Paper Curl] to "Strong".

3. **Print the image. Has the problem been resolved?**

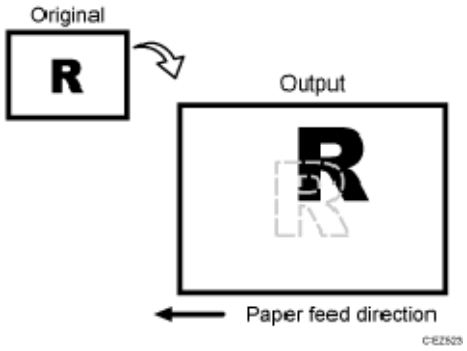
Yes	Finished!
No	Turn the sheets the other way up.

4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Contact your service representative.

Paper Feed Problems Affecting Image Quality

The Image Is Positioned Incorrectly



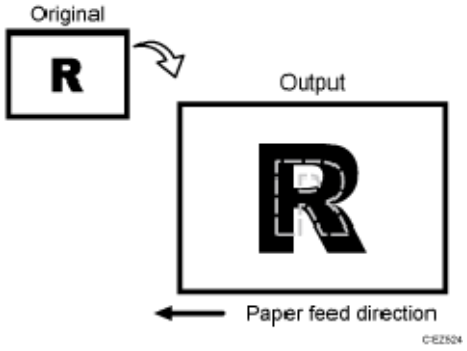
Cause:

Depending on the paper thickness, floppiness, edge roughness, and curl, the image may become mispositioned.

Solution:

See, page 230 "Adjusting the Image Position of the Either Side of the Paper".

Image Scaling Error on the Side 1 of Paper



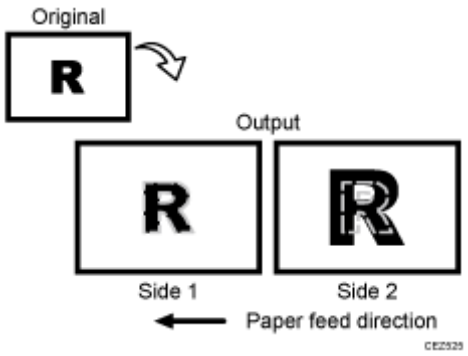
Cause:

An image scaling error may occur because of expansion or contraction of the paper.

Solution:

See, page 230 "Adjusting the Image Position of the Either Side of the Paper".

Image Scaling Error on the Side 2 of Paper



Cause:

An image scaling error on the side 2 of the paper may occur because the paper expands or contracts after the image on the side 1 of the paper has been fused.

Solution:

See, page 230 "Adjusting the Image Position of the Either Side of the Paper".

Scratches, Streaks, or Vertical Creases Appear on the Image

Cause:

The paper feed speed of the exit motor, switchback entrance, or switchback exit is too high or too low.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

<If scratches or streaks appear on the side 2 of the paper>

You can lessen the problem by decreasing the paper feed speed.

1. In [Advanced Settings] for the custom paper you are using, adjust the paper feed speed for delivery.

   Depending on the type of printing, specify one of the following:

   - For one-sided printing, reduce the value in 123: [Exit Motor Feed Speed Adjustment] by 0.1.
   - For duplex printing, reduce the value in 124: [Switchback Entrance Feed Speed

Adj] by 0.1.

- For one-sided printing (delivery of inverted paper), reduce the value in 125: [Switchback Exit Feed Speed Adj] by 0.1.

2. Print the image. Has the problem been resolved?

Yes	Finished!
No	Keep decreasing the value by 0.1 until the problem is resolved. If the problem persists even though you have decreased the value by 1.0%, contact your service representative.

<If scratches or streaks appear on the side 1 of the paper>

You can lessen the problem by increasing the paper feed speed.

1. In [Advanced Settings] for the custom paper you are using, adjust the paper feed speed for delivery.

   Depending on the type of printing, specify one of the following:

   - For one-sided printing, increase the value in 123: [Exit Motor Feed Speed Adjustment] by 0.1.
   - For duplex printing, increase the value in 124: [Switchback Entrance Feed Speed Adj] by 0.1.
   - For one-sided printing (delivery of inverted paper), increase the value in 125: [Switchback Exit Feed Speed Adj] by 0.1.

2. Print the image. Has the problem been resolved?

Yes	Finished!
No	Keep increasing the value by 0.1 until the problem is resolved. If the problem persists even though you have increased the value by 1.0%, contact your service representative.

Decurling Results in Scratches, Streaks, or Creases

Cause:

The paper feed speed of the decurler unit is too high or too low.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

<If scratches or streaks appear on the side 2 of the paper or continuous noise results>

You can lessen the problem by decreasing the paper feed speed of the decurler unit.

1. In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, check the present degree of decurling (Off, Weak, or Strong) in 0304: [Adjust Paper Curl].
2. In [Advanced Settings] for the custom paper you are using, adjust the paper feed speed of the decurler unit.
   - If the degree of decurling is set to "Off", reduce the value in 105: [Decurler Feed Speed Adj: Curl Adj Off] by 0.5%.
   - If the degree of decurling is set to "Weak", reduce the value in 106: [Decurler Feed Speed Adj: Curl Adj Weak] by 0.5%.
   - If the degree of decurling is set to "Strong", reduce the value in 107: [Decurler Feed Speed Adj: Curl Adj Strg] by 0.5%.
3. Print the image. Has the problem been resolved?

Yes	Finished!
No	Keep decreasing the value by 0.5% until the problem is resolved. If the problem persists even though the setting has reached its minimum value, contact your service representative.

<If scratches, streaks, or creases appear on the side 1 of the paper>

You can lessen the problem by increasing the paper feed speed of the decurler unit.

1. In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, check the present degree of decurling (Off, Weak, or Strong) in 0304: [Adjust Paper Curl].
2. In [Advanced Settings] for the custom paper you are using, adjust the paper feed speed of the decurler unit.
   - If the degree of decurling is set to "Off", increase the value in 105: [Decurler Feed Speed Adj: Curl Adj Off] by 0.5%.

- If the degree of decurling is set to "Weak", increase the value in 106: [Decurler Feed Speed Adj: Curl Adj Weak] by 0.5%.
- If the degree of decurling is set to "Strong", increase the value in 107: [Decurler Feed Speed Adj: Curl Adj Strg] by 0.5%.

3. Print the image. Has the problem been resolved?

Yes	Finished!
No	Keep increasing the value by 0.5% until the problem is resolved. If the problem persists even though the value has reached its maximum value, contact your service representative.

Cleaning the Paper Feed Path

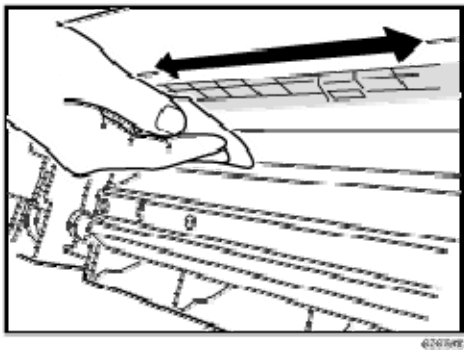
Paper dust sticking to the paper transfer guide board, roller, paper feed roller, or sensor may cause white spots, paper jam, or double feeding. Clean the paper feed path from the paper tray to the paper exit in the drawer.

Important

- Turn off the main power before performing the operations described in this manual. See "Turning Off/On the Power", Replacement Guide.

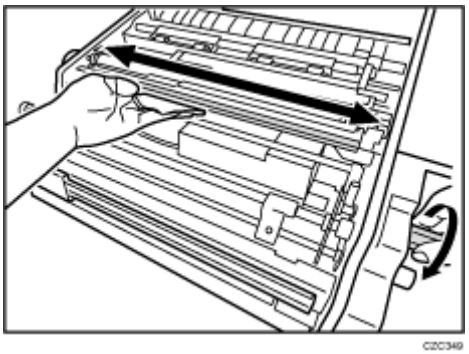
Guide Board

Wipe the guide board with a well-wrung-out damp cloth. To clean the innermost recesses, use a cloth that is as large as your palm.



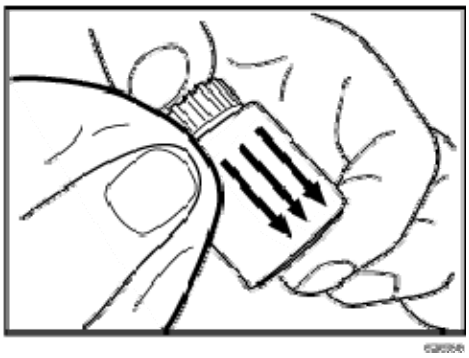
Roller

Wipe the roller with a well-wrung-out damp cloth, and then wipe with a dry, unused, lint-free cloth until no moisture remains.



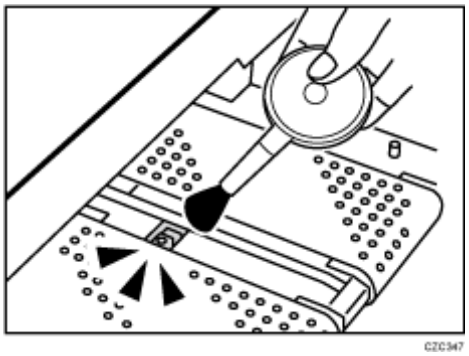
Paper Feed Roller

Wipe the entire surface of the paper feed roller lengthwise with a well-wrung-out damp cloth, and then wipe with a dry, unused, lint-free cloth until no moisture remains.



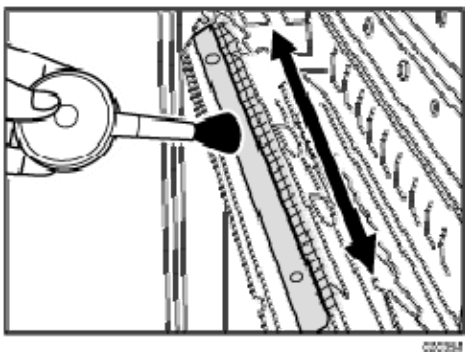
Sensor

Remove dust with a blower brush.



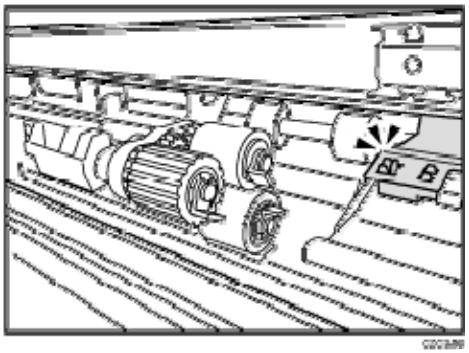
Antistatic Brush

Remove dust with a blower brush.



Cleaning Paper Trays 1/2

1. **Remove the paper tray.**
2. **Clean the sensor.**



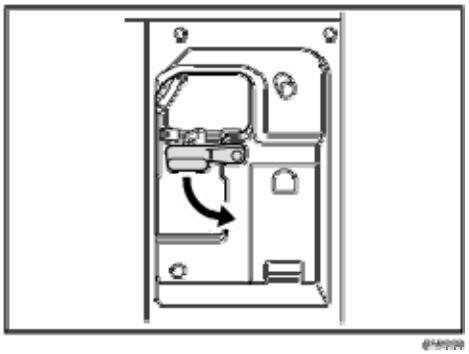
Note

- For details about detaching and reattaching the parts, see the Replacement Guide.

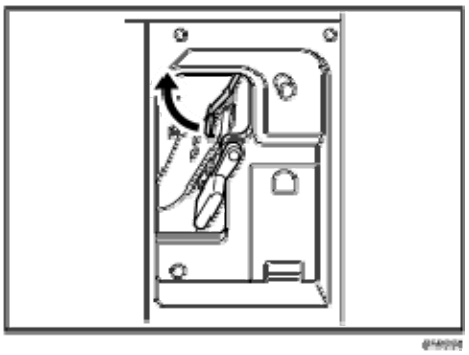
Cleaning the Paper Feed Path for Paper Trays 1/2

1. **Open the front covers.**

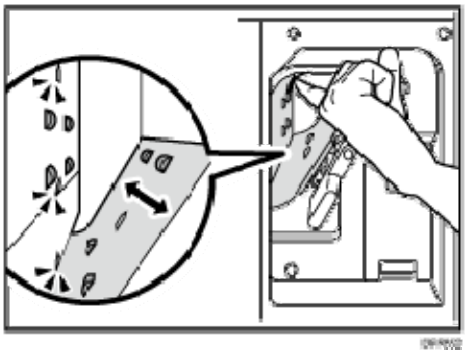
2. **Pull down the lever A1.**



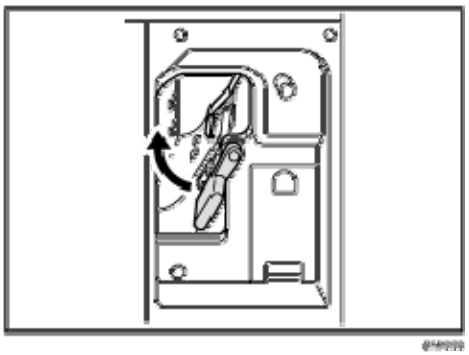
3. **Pull up the plate.**



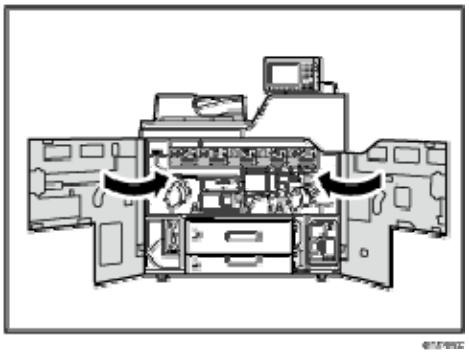
4. **Clean the rollers, sensors, and guide boards.**



5. **Pull down the plate.**
6. **Pull up the lever A1.**



7. **Close the front covers.**

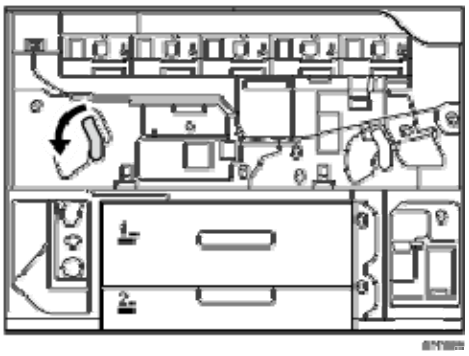


Cleaning the Paper Feed Path in the Drawer

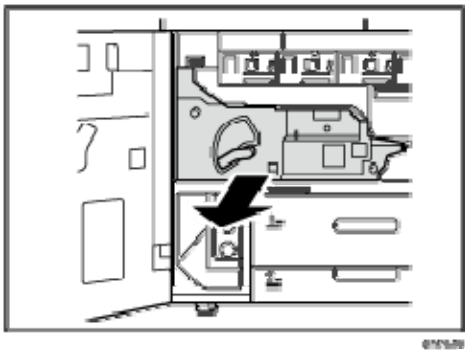
Left drawer unit

1. **Open the front covers.**

2. **Pull down the lever C1.**

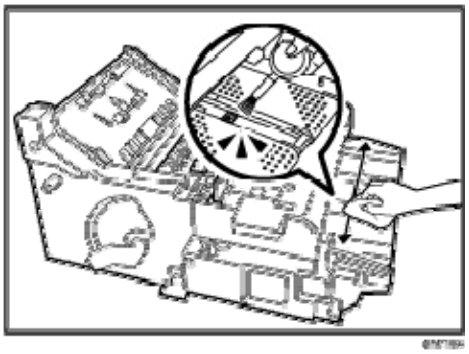


3. **Pull the drawer out completely until it stops.**

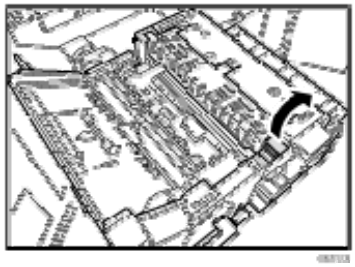


4. **Use a dry cloth to clean the transport belt unit. To clean the sensor, use a blower brush.**

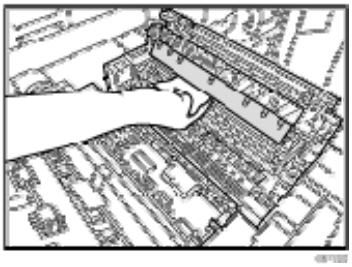
   Be careful to avoid the paper transport belt sensor when you do this.



5. **Pull up and open the cover D2.**

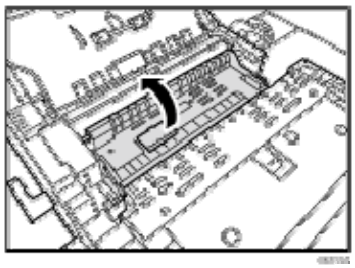


6. **Use a dry cloth to clean the stripper plate on the fusing belt.**

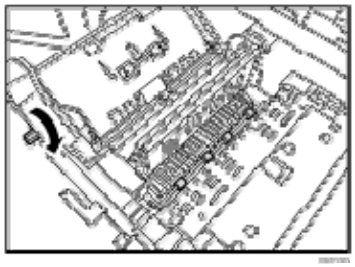


7. **Clean the sensors.**

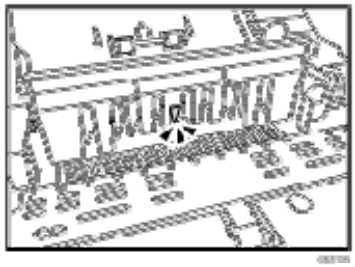
8. **Close the cover D2.**
9. **Pull up and open the cover D3.**



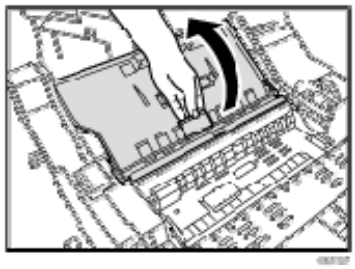
10. **Turn the knob D1 and clean the rollers.**



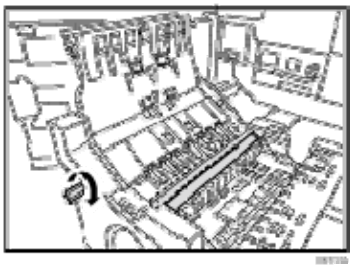
11. **Clean the sensors.**

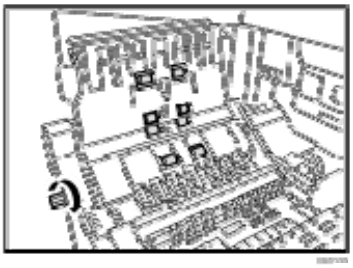


12. **Close the cover D3.**
13. **Pull up and open the cover D4.**

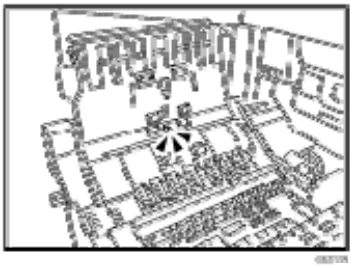


14. **Turn the knob D1 while using a dry cloth on the invert exit rollers.**

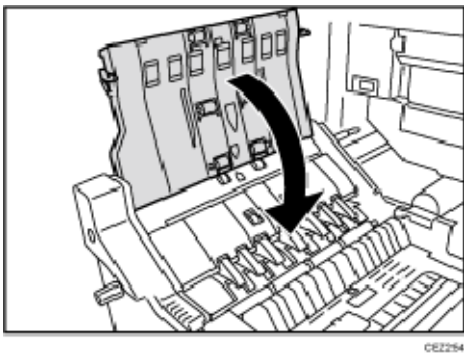




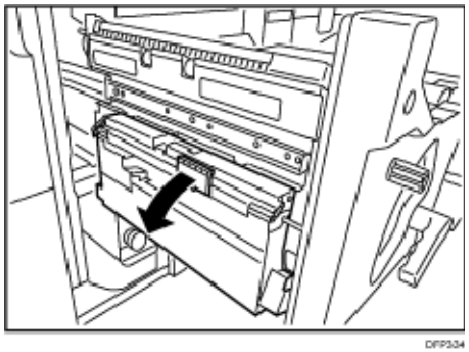
15. **Clean the sensors.**



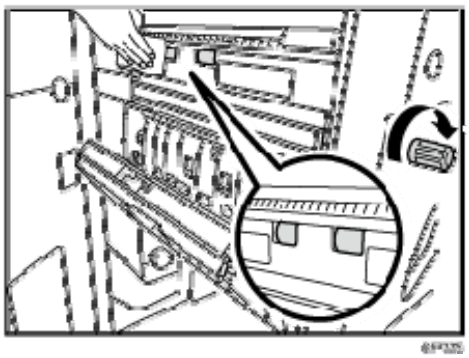
16. **Close the cover D4.**



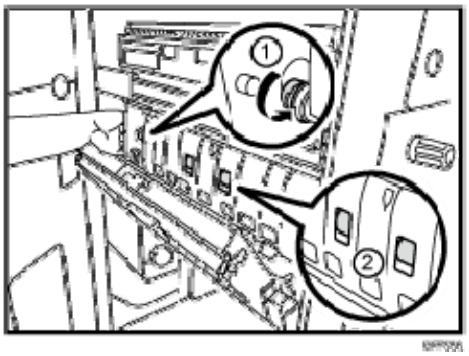
17. **Pull down and open the cover D5.**



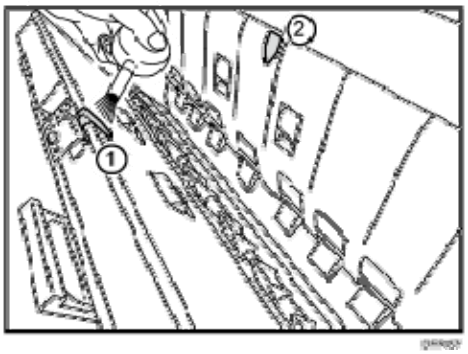
18. **Turn the knob D1 and clean the roller.**



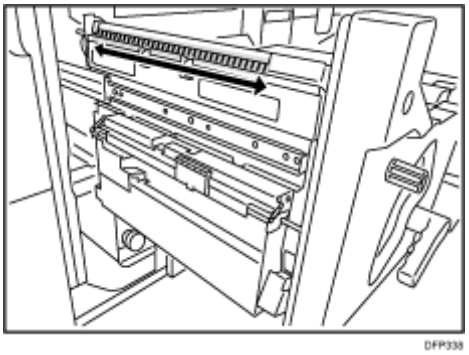
19. **Turn the gear in the back while using a dry cloth on the:**
    (1) Invert exit drive rollers 1 (as you rotate the gear)
    (2) Invert exit idle rollers 1



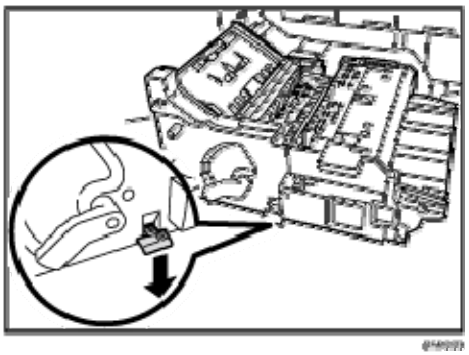
20. **Clean the sensors.**



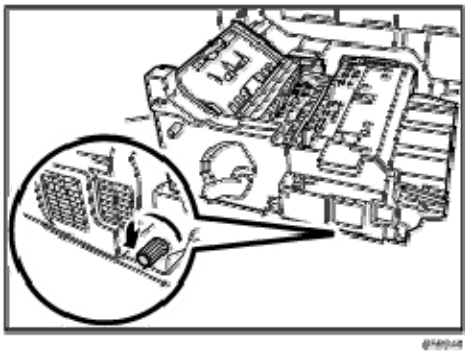
21. **Pull up and close the cover D5.**
22. **Use a hand vacuum cleaner to clean the anti-static brush near the exit rollers.**



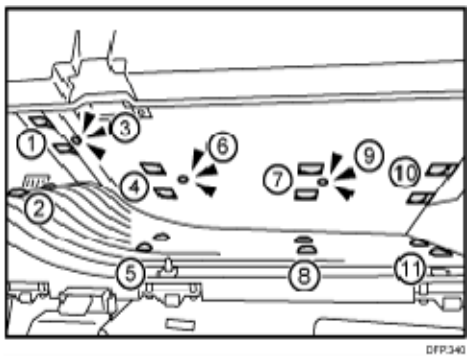
23. **Release and pull down duplex transport path plate (Z3).**



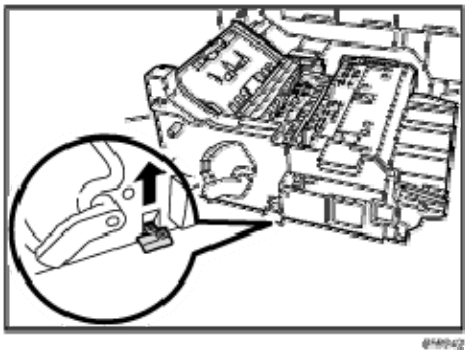
24. **Turn the knob Z1.**



25. **Clean the rollers (as you rotate the knob) and sensors.**



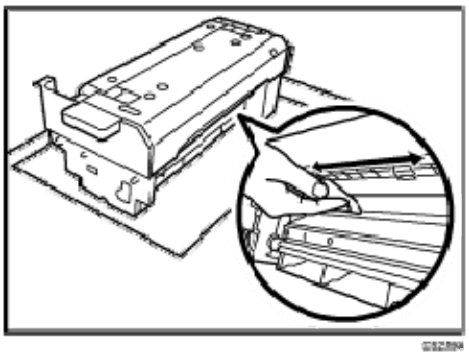
26. **Close the duplex transport path plate (Z3).**



27. **Remove the fusing unit from the machine.**

    For details about removing the fusing unit, see Replacement Guide.

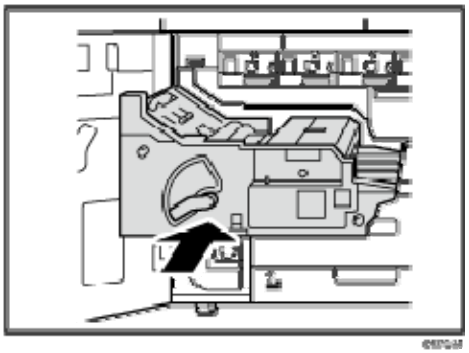
28. **Use a dry cloth to clean the entrance guide plate.**



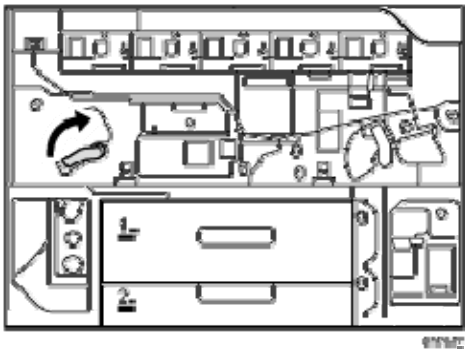
29. **Install the fusing unit.**

    For details about installing the fusing unit, see Replacement Guide.

30. **Push the left drawer slowly into the machine until it stops.**



31. **Pull up the lever C1.**

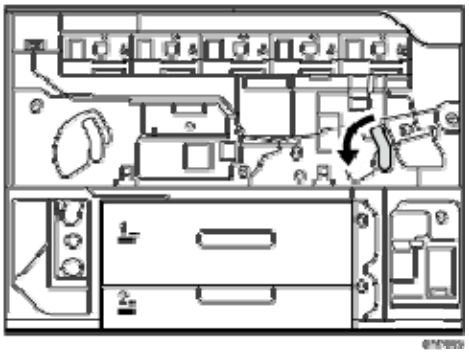


32. **Close the front covers.**

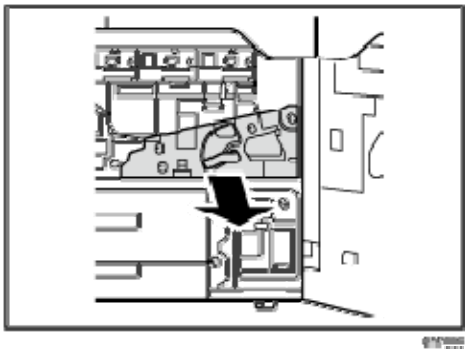
Right drawer unit

1. **Open the front covers.**

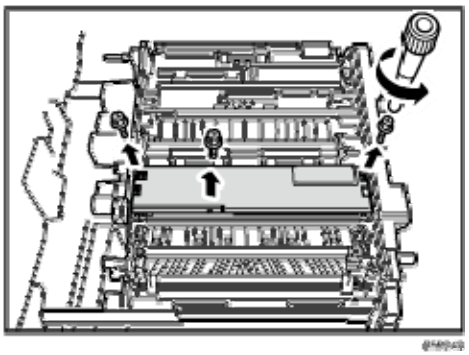
2. **Pull down the lever B5.**



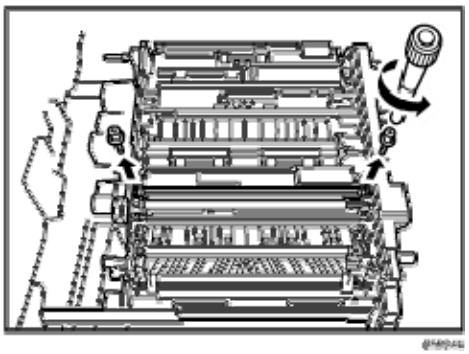
3. **Pull out the right drawer until it stops.**



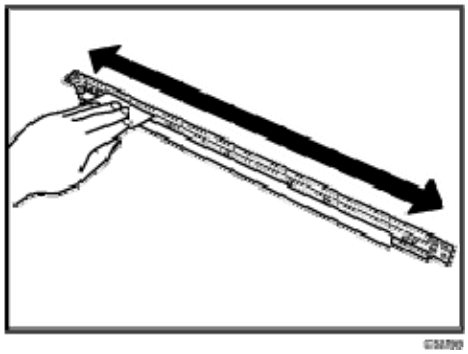
4. **Remove the three black screws on the cover plate, and then remove the cover plate.**



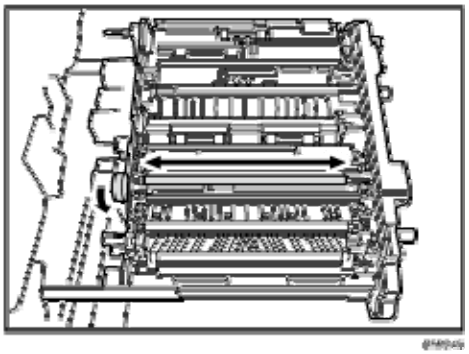
5. **Remove the two black screws on the dust catcher, and then remove the dust catcher.**



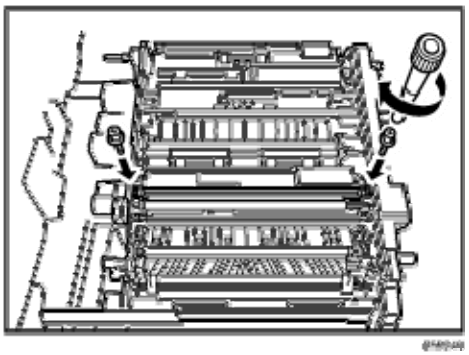
6. **Use a clean dry cloth to remove any dust remaining in the dust catcher.**



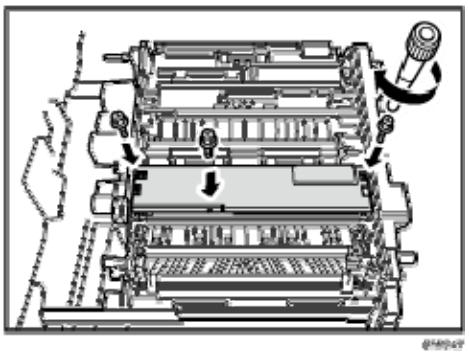
7. **Turn the knob while using a dry cloth on the transfer timing idle roller.**



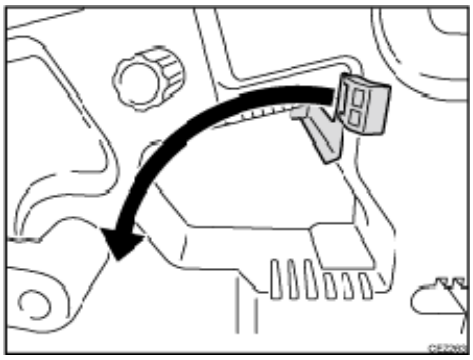
8. **Reattach the dust catcher with the two black screws.**



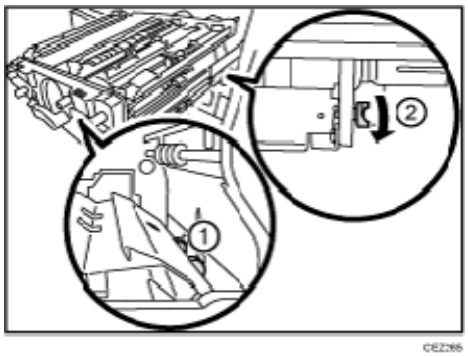
9. **Reattach the cover plate with the three black screws.**

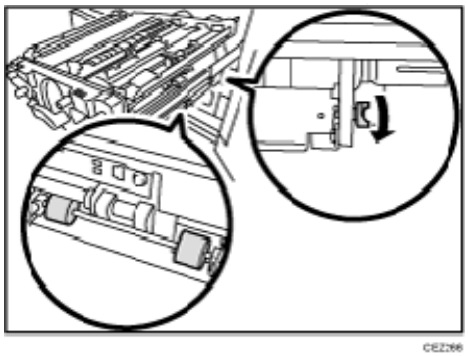


10. **On the right side of the drawer, pull down the lever B1 to release the plates.**

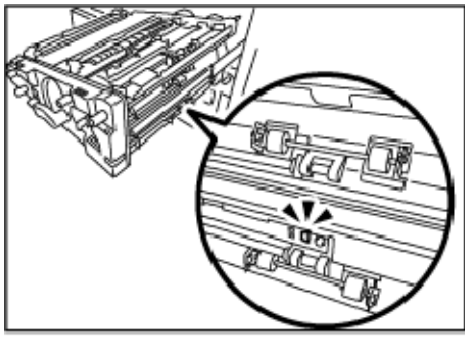


11. **Hold the dry cloth against the main relay drive rollers (1).**

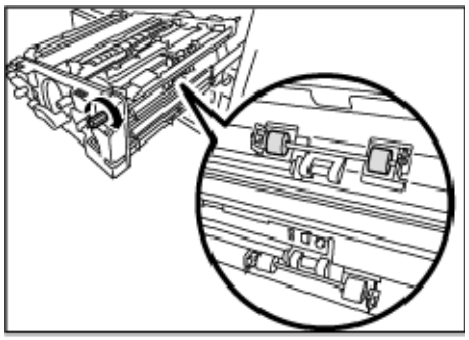




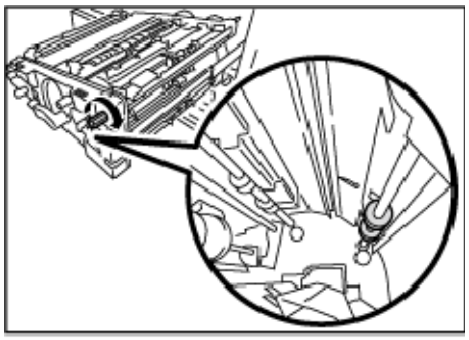
12. **Clean the sensors.**



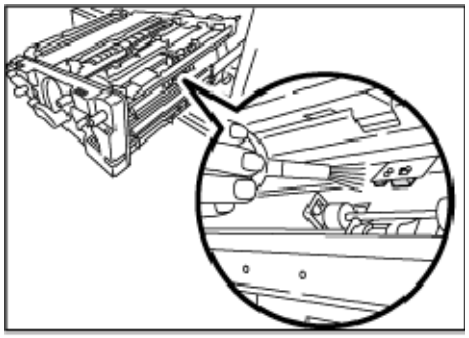
13. **While turning the knob B3, use a dry cloth on the registration entrance idle rollers.**



14. **On the inside of the right drawer, hold a dry cloth against the registration entrance drive rollers while turning the knob B3.**

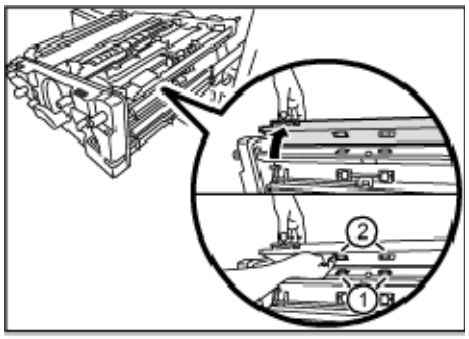


15. **Clean the sensors.**



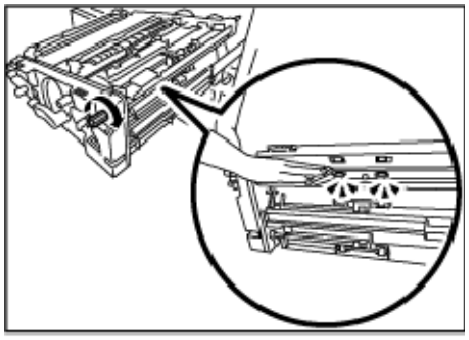
CEZ271

16. **Open the cover B7 to clean the rollers.**



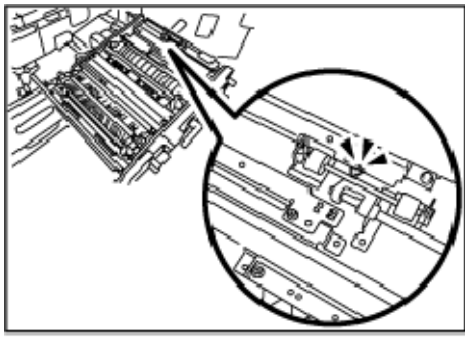
CEZ275

17. **Hold a dry cloth between the plates and the rollers to clean the drive rollers as they rotate the knob B3.**

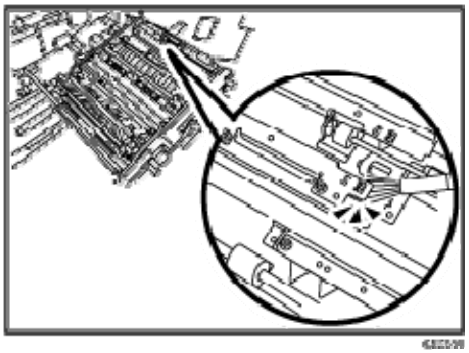


CEZ276

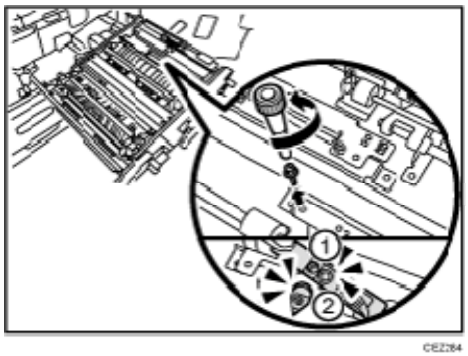
18. **Clean the sensors.**



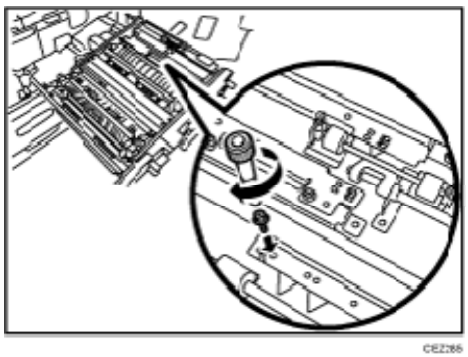
CEZ277



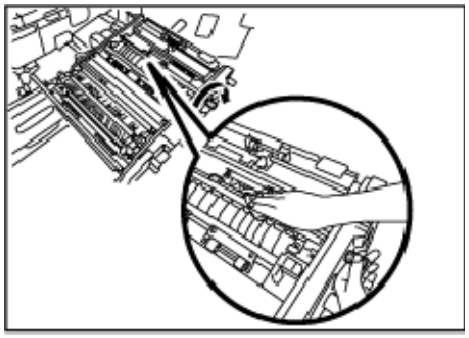
19. **Remove the black screw on the double-feed sensor bracket and clean the sensors.**



20. **Reattach the double-feed sensor with the black screw.**

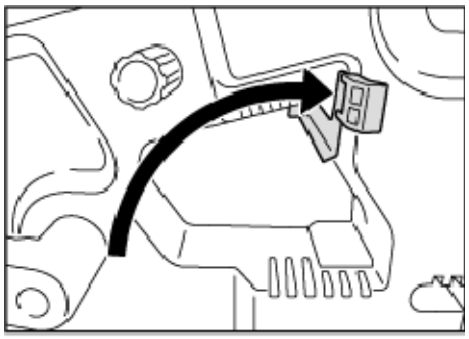


21. **Turn the knob B4 on the front while using a dry cloth on the registration timing idle rollers.**



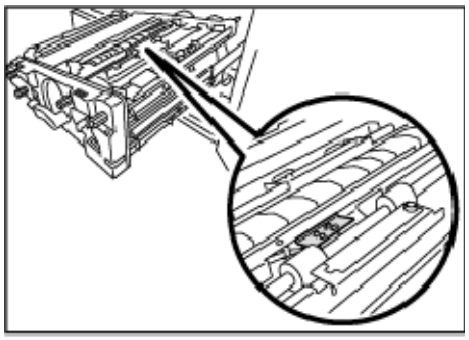
CEZ266

22. **Pull up the lever to close the plates.**



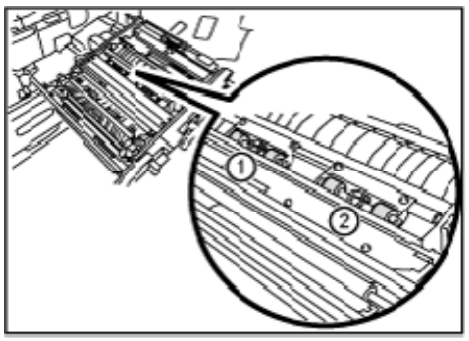
CEZ264

23. **Use the blower brush on the registration timing sensor.**



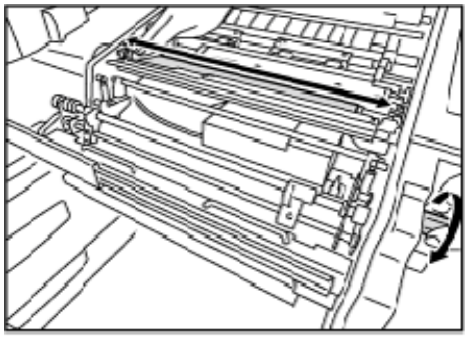
CEZ268

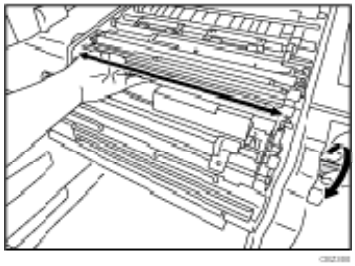
24. **Use the dry cloth to clean the rollers.**



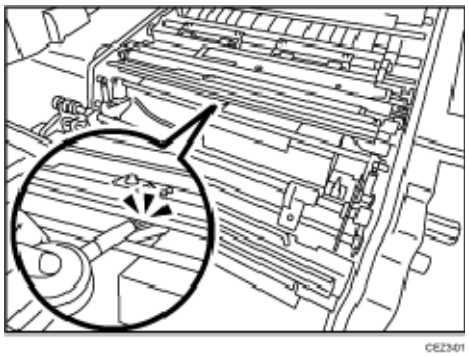
CEZ261

25. **Turn the knob B6 while using a dry cloth on the transfer timing idle roller.**

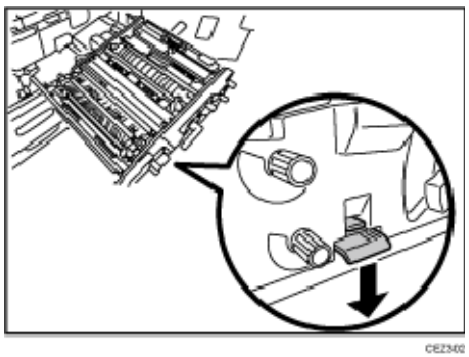




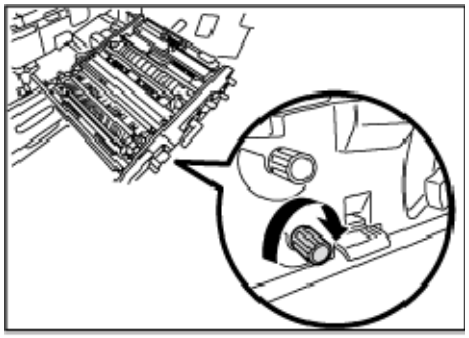
26. **Use the blower brush on the transfer timing sensor.**



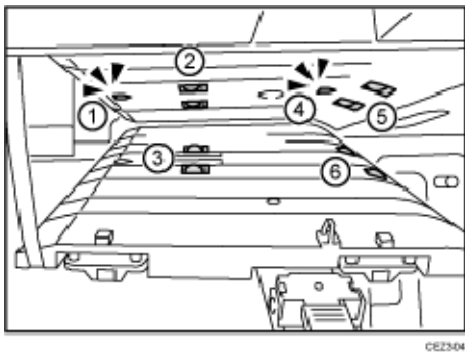
27. **Lower the duplex transport path plate (Z4) on the front of the right drawer.**



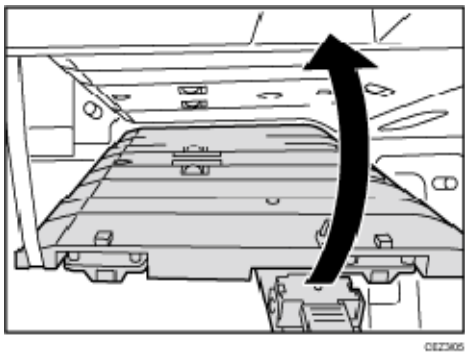
28. **Rotate the knob Z2.**



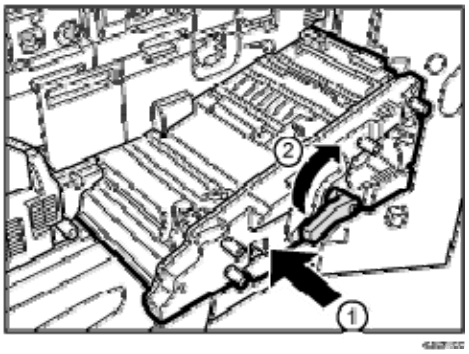
29. **Clean the rollers (as you rotate the knob) and sensors.**



30. **Close the duplex transport path plate (Z4).**



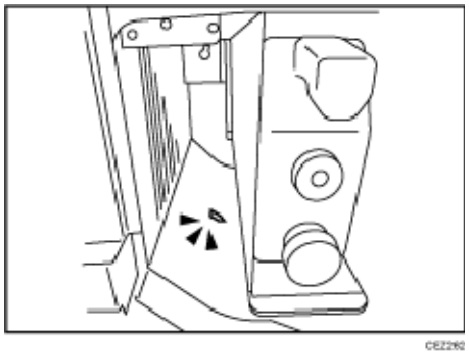
31. **Push the right drawer into the main unit until it stops, and then pull up the lever B5.**



32. **Close the front covers.**

Purged Paper Sensor

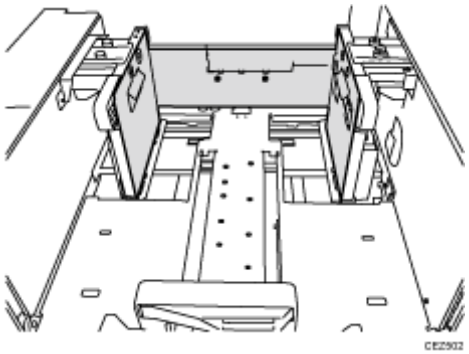
1. **Open the left front cover.**
2. **If there is any paper in the purge tray, remove it.**
3. **Clean the sensors.**



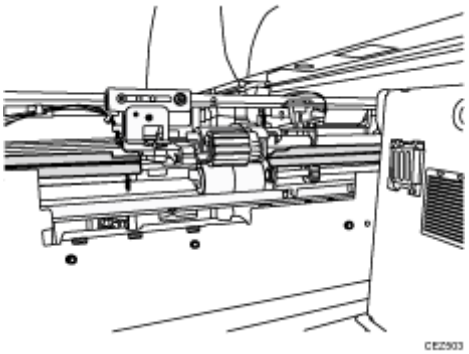
4. **Close the left front cover.**

Cleaning the Paper Feed Path in the Wide LCT

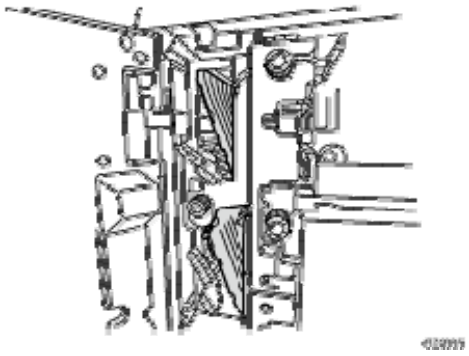
1. **Clean the side fences and front guide.**



2. **Clean the paper feed rollers.**
3. **Clean the guide board of the paper feed unit.**



4. **Clean the guide board interior.**



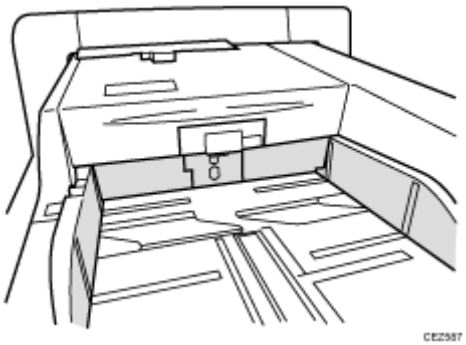
5. **After cleaning, restore the machine so that it resumes operation.**

Note

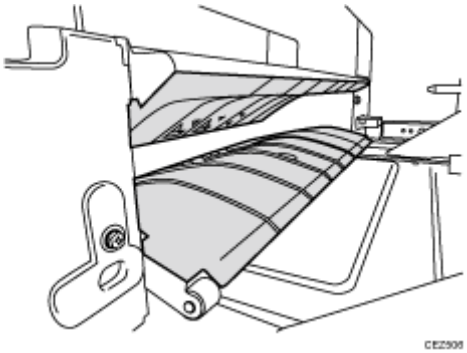
- For details about detaching and reattaching the parts, see the Replacement Guide.

Cleaning the Paper Feed Path in the Multi Bypass Tray

1. **Clean the side fences and front guide.**



2. **Clean the paper feed rollers.**
3. **Clean the guide board.**



4. **After cleaning, restore the machine so that it resumes operation.**

Note

- For details about detaching and reattaching the parts, see the Replacement Guide.

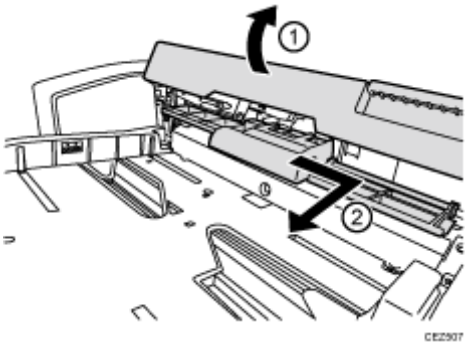
Cleaning the Paper Feed Rollers and Paper Feed Belt in the Interposer

Clean the paper feed belt and paper feed rollers in the interposer.

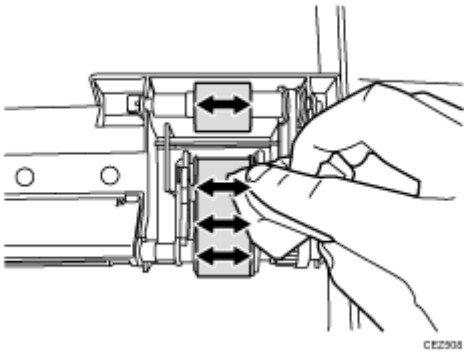
The procedure is explained using the interposer upper tray. The procedure is the same for the lower tray.

1. **Remove the loaded paper.**
2. **Open the upper cover, and then detach the paper feed unit.**

   Pull it out slightly, release the metal shaft, and then detach it.



3. **Clean the paper feed belt and paper feed rollers in the detached paper feed unit.**

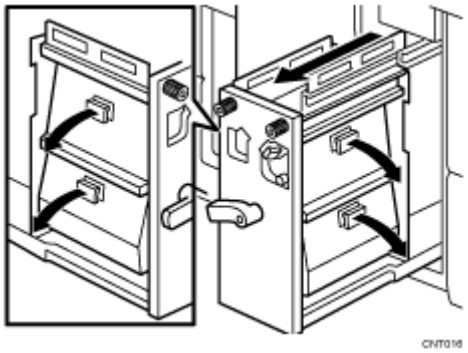


4. **After cleaning, restore the machine so that it resumes operation.**

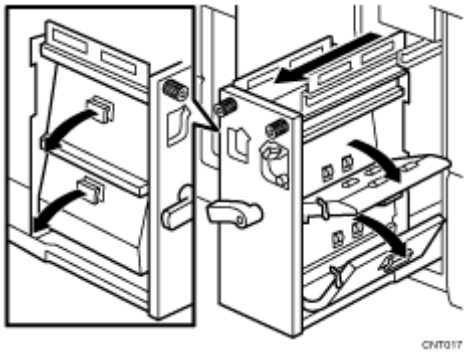
Cleaning the Paper Path in the Buffer Pass Unit

Clean the paper transport rollers and guide plates in the buffer pass unit.

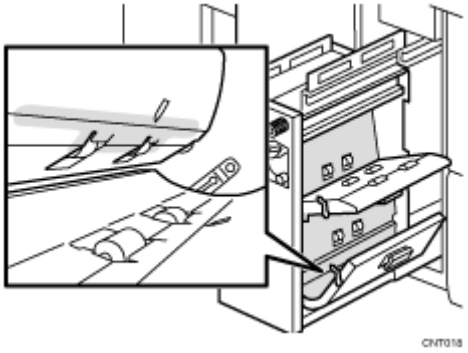
1. **Pull out the buffer pass unit and open the guide plates.**



2. **Wipe the rubber rollers for the transport rollers with a slightly damp cloth.**
   There are twenty-four rubber rollers for the twelve transport rollers.



3. **Wipe the guide plates (especially the ridgelines of the bends and the cut-and-bent portions) with a cloth moistened with alcohol.**



4. **Close the guide plates and push the buffer pass unit back into the machine.**

Post-Processing Option Troubleshooting

Finisher

Delivered Sheets Are Not Stacked Properly

Solution:

Depending on the cause of the problem, do one of the following:

Coated paper is being used.

In the [Finishing: Finisher] group on the [Adjustment Settings for Skilled Operators] menu, set 0617: [Adjust Output Fan Level] to [Increase Air Volume].

There is airflow in the room.

Minimize the airflow. For instance, turn the air conditioner off.

Printed sheets are curled.

<If the decurler unit is used>

In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, select 0304: [Adjust Paper Curl] and adjust the degree of decurling.

To correct curls facing up, specify "Adjust [redacted] Curl".

To correct curls facing down, specify "Adjust [redacted] Curl".

Select "Strong" or "Weak" depending on the degree of decurling required.

<If the decurler unit is not used>

Load the sheets the other way up.

There are too many stacked sheets.

Reduce the number of the stacked sheets. To do this, suspend printing and remove the stacked sheets, and then resume printing.

To suspend printing, press the [Suspend] key on the finisher.

To resume printing, press the [Resume] key on the finisher.

Thin coated paper is used.

When stapling thin coated paper, the stapled sheets may be scratched or they may jam. To follow the steps below, attach the decurler unit.

In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, set 0304: [Adjust Paper Curl] to "Adjust [redacted] Curl". To control the level of decurling, select "Weak" if the present setting is "Off" or "Strong" if the present value is "Weak".

Large Delivered Sheets Are Not Stacked Properly

Cause:

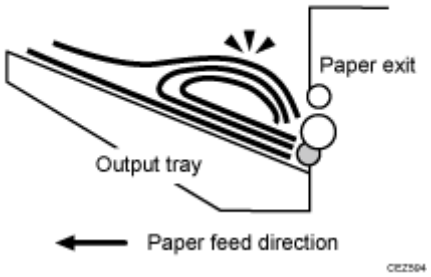
When using large-size or coated and paper-to-paper friction is very high, a sheet may push against another or paper deflection may occur.

This may occur if:

- B4⊐, $8^1/_2$" × 14"⊐, or larger size of paper is used.
- Paper that produces high paper-to-paper friction is used.
- The temperature or humidity is high.

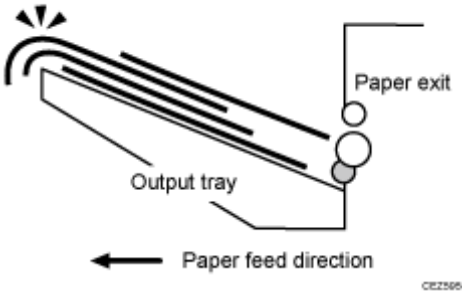
Sheet bending

The leading edge of the delivered sheet bends upward and backward.



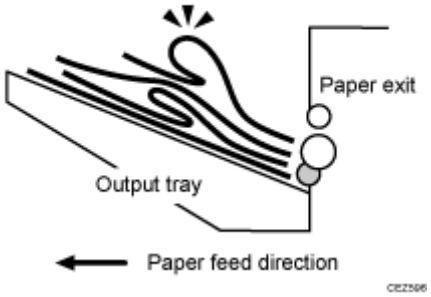
One sheet pushing out another

Because of high paper friction, the delivered sheet may get stuck and push out other sheets of paper.



Paper deflection

Because of high paper friction, the delivered sheet may arch up and become crimped.



Solution:

Depending on the cause of the problem, do one of the following:

<Sheet bending>

There is airflow in the room.

Minimize the airflow. For instance, turn the air conditioner off.

Sheets are curled upward.

<If the decurler unit is used>

In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, set 0304: [Adjust Paper Curl] to [Adjust [redacted] Curl]. To control the level of decurling, select "Weak" if the present setting is "Off" or "Strong" if the present value is "Weak".

<If the decurler unit is not used>

Load the sheets the other way up.

Coated paper is being used.

In the [Finishing: Finisher] group on the [Adjustment Settings for Skilled Operators] menu, set 0617: [Adjust Output Fan Level] to [Increase Air Volume].

Standard paper is being used.

- In the [Finishing: Finisher] group on the [Adjustment Settings for Skilled Operators] menu, set 0615: [Output Trail Edge Press Setting] to [On].
- In the [Finishing: Finisher] group on the [Adjustment Settings for Skilled Operators] menu, set 0616: [Output Fan Setting] to [On].

<One sheet pushing out another or sheets becoming crimped>

Sheets are curled downward.

<If the decurler unit is used>

In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, set 0304: [Adjust Paper Curl] to [Adjust [redacted] Curl]. To control the level of decurling, select "Weak" if the present setting is "Off" or

"Strong" if the present value is "Weak".

<If the decurler unit is not used>

Load the sheets the other way up.

Coated paper is being used.

In the [Finishing: Finisher] group on the [Adjustment Settings for Skilled Operators] menu, set 0617: [Adjust Output Fan Level] to [Increase Air Volume].

Standard paper is being used.

- In the [Finishing: Finisher] group on the [Adjustment Settings for Skilled Operators] menu, set 0615: [Output Trail Edge Press Setting] to [On].
- In the [Finishing: Finisher] group on the [Adjustment Settings for Skilled Operators] menu, set 0616: [Output Fan Setting] to [On].

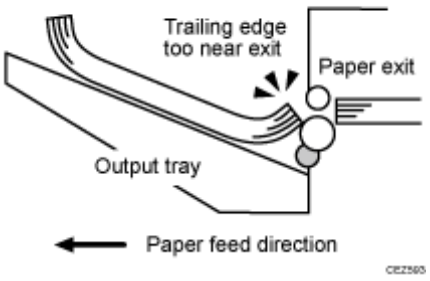
Trailing Edge of Stapled Sheets Close to the Paper Exit

Cause:

The trailing edge of the sheets may be too close to the paper exit when the paper is stacked. If this happens, stapled sheets, when delivered, may push the previously delivered sheet, resulting in paper bending or misfeeding.

This may occur if:

- There is a tight curl on a delivered set of stapled sheets.
- Limp paper such as thin or recycled paper is used.



Solution:

1. **Load the sheets the other way up.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!

No	Go to the next step.

To follow the steps below, attach the decurler unit.

3. **In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, set 0304: [Adjust Paper Curl] to [Adjust Curl].**
   Select "Strong" or "Weak" to control the level of decurling as required.
4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Contact your service representative.

Sheets Cannot Be Stapled Properly

Cause:

When the sheets are fed to the staple unit inside the finisher, they may be overlaid, resulting in a misalignment of 5 mm (0.2 inches) relative to each other after stapling.
When coated or other paper producing higher paper-to-paper friction is used, the paper edges are not aligned properly, resulting in misaligned stapling.
This may occur if:

- Coated or other paper producing higher paper-to-paper friction is used.
- Thin or other limp paper is used.

Solution:

Reduce the number of sheets to be stapled.

1. **In the [Finishing: Finisher] group on the [Adjustment Settings for Skilled Operators] menu, select 0606: [Number of Sheet Align for Stapling], and reduce the number of sheets to be stapled.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	If the problem persists even though the setting has reached its minimum value, contact your service representative.

Note

- If the number of sheets to be stapled is reduced, paper alignment will take longer, compromising the machine's throughput.

Misfeeding of Sheets Other Than the Cover Has Occurred

Cause

Misfeeding of sheets other than the cover has occurred in the tray for booklet folding.
This may occur if:

- Attempted booklet folding of paper with high image density at the folds.
- Attempted booklet folding of a bundle of 15 or more sheets.
- The temperature or humidity is low.

Solution:

1. **Press [Dup./ Combine/ Series] on the copier screen.**
2. **Press [Book].**
3. **Select [1 Sided] or [2 Sided] for [Original:].**
4. **Select [Magazine].**
5. **Press [OK].**
6. **Press [Edit / Color].**
7. **Press [Margin Adj.].**
8. **Specify left margin on the front side to 5 mm and right margin on the back side to 5 mm.**

Paper Edges Are Stained

Cause:

While back curls are removed, the toner adhesion becomes insufficient when the fusing pressure roller is used on the paper, allowing the toner to stain the anti-static brush.
This may occur if:

- The decurler unit is attached.
- Paper needs to be curled backward.
- Sheets are delivered with their printed side facing up in the post-processing machine.

Solution:

1. **In the [Machine: Paper Feed/ Output] group of the [Adjustment Settings for Skilled Operators] menu, set 0304: [Adjust Paper Curl] to [Adjust Curl].**
   If "Curl: Off" is selected, change the value to Curl: Weak". If "Curl: Weak" is selected, change the value to "Curl: Strong".
2. **If you cannot remove back curls, print with the printed side face up for single-sided printing.**

Multi-Folding Unit

Inaccurate Folding (Folding Deviation)

Cause:

Depending on paper hardness, inaccurate folds may result. This is referred to as folding deviation.

Solution:

Change the folding position by adjusting the position of the paper edge stopper for folding.

- For multi-sheet folding, change the folding position using the following settings in the [Finishing: Fold] group on the [Adjustment Settings for Skilled Operators] menu:
  0701: [Half Fold Position (Multi-sheet Fold)]
  0702: [Letter Fold-out Position 1 (Multi-sheet Fold)]
  0703: [Letter Fold-out Position 2 (Multi-sheet Fold)]
  0704: [Letter Fold-in Position 1 (Multi-sheet Fold)]
  0705: [Letter Fold-in Position 2 (Multi-sheet Fold)]
- For single-sheet folding, change the folding position using the following settings in the [Advanced Settings] for the custom paper you are using:
  135: [Adjust Z-fold Position 1]
  136: [Adjust Z-fold Position 2]
  137: [Half Fold Position: Single-sheet Fold]
  138: [Letter Fold-out Posn 1: Single-sheet Fld]
  139: [Letter Fold-out Posn 2: Single-sheet Fld]
  140: [Letter Fold-in Posn 1: Single-sheet Fold]
  141: [Letter Fold-in Posn 2: Single-sheet Fold]
  142: [Double Parallel Fold Position 1]
  143: [Double Parallel Fold Position 2]
  144: [Adjust Gate Fold Position 1]
  145: [Adjust Gate Fold Position 2]
  146: [Adjust Gate Fold Position 3]

Folding Deviation

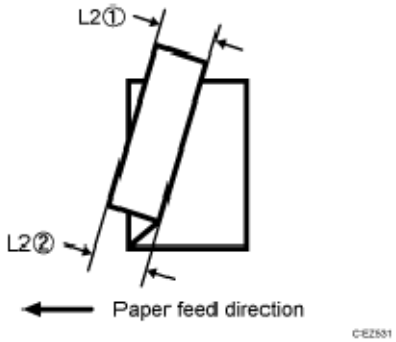
Cause:

Depending on paper hardness, folding deviations (skewed folding) may appear.

A deviation may appear if the edge dimensions of the parts between folds are different.

For example, in the following illustration, the dimensional difference between the top (L2[2]) and bottom (L2[1]) edges is a deviation.

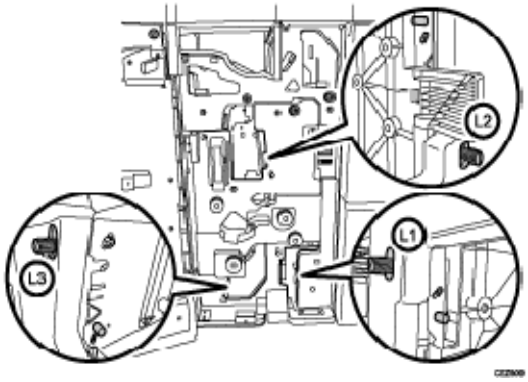
<Folding deviation sample of L2 for Z-fold>



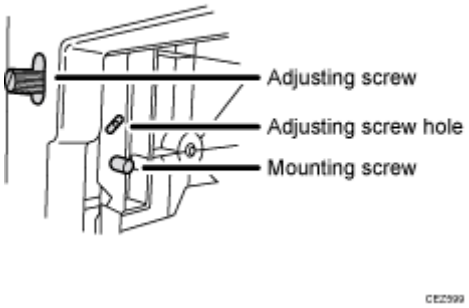
Solution:

Adjust the deviation.

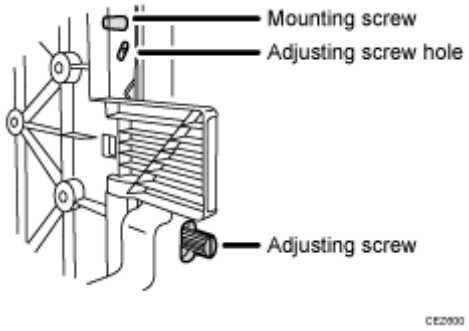
The multi-folding unit has three adjusting screws (L1, L2, and L3) to adjust deviation.



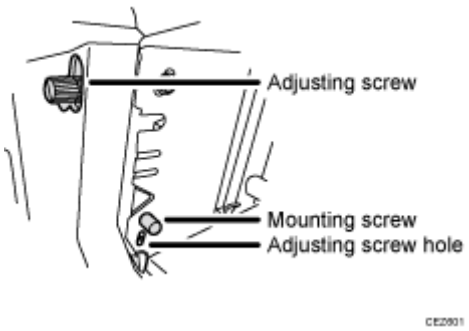
L1



L2

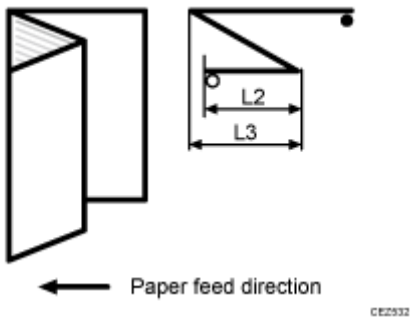


L3

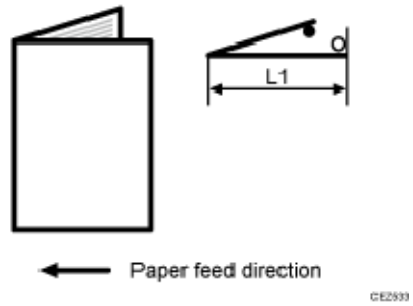


The screws adjust the folding deviations of the following parts:

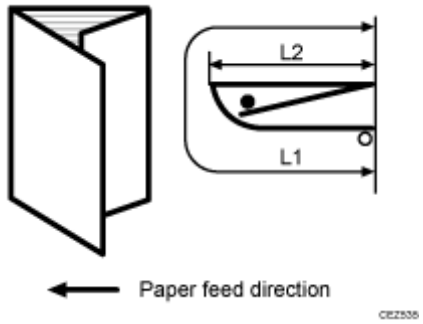
Z-fold



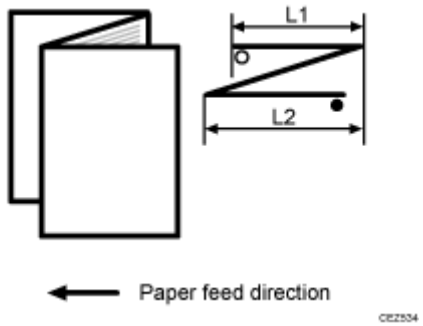
Half Fold



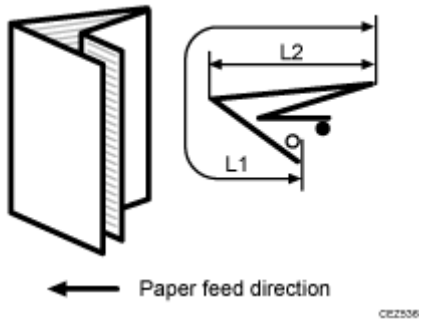
Letter Fold-in



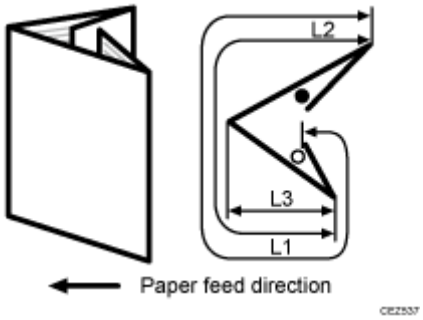
Letter Fold-out



Double Parallel



Gate Fold

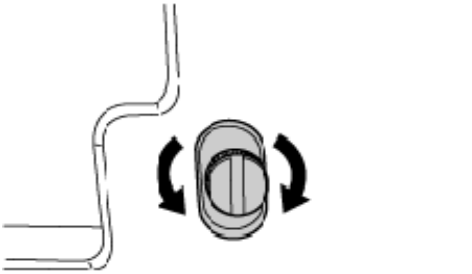


The ○ mark indicates the leading edge (relative to the paper feed direction), and the ● mark indicates the trailing edge.

<How to adjust the folding deviation>

This procedure is the same for L1, L2, and L3.

1. **Open the front cover of the multi-folding unit.**
2. **Remove the mounting screw.**
   If the mounting screw is attached to the adjusting screw hole, unfasten it.
3. **Turn the adjusting screw to adjust the deviation.**
   - To increase the length at the bottom part of paper, turn the screw clockwise.
   - To decrease the length at the bottom part of paper, turn the screw counterclockwise.



4. **Attach the mounting screw to fasten the adjusting screw.**
   If the mounting screw is attached to the adjusting screw hole, fasten it.
5. **Close the front cover of the multi-folding unit.**

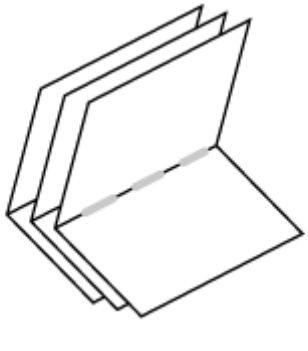
Note

- For multi-sheet folding, the folding deviation that appears in the center of paper will be adjusted.
- If the deviation is large, the paper may be skewed. For further information, see page 154 "Paper Skew".

Folds Stained by Multi-sheet Folding

Cause:

If multi-sheet folding is performed after a large number of Z-folds have been performed, the tip of the blade used for the multi-sheet folding may be stained, resulting in stained paper.

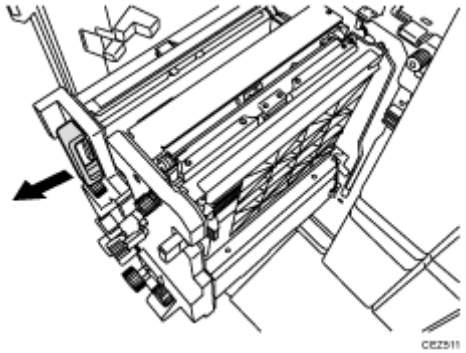


This will produce paper stain of 1-3 cm (0.4-1.2 inches) in width (equal to the width of the blade) in the fold in the center of paper.

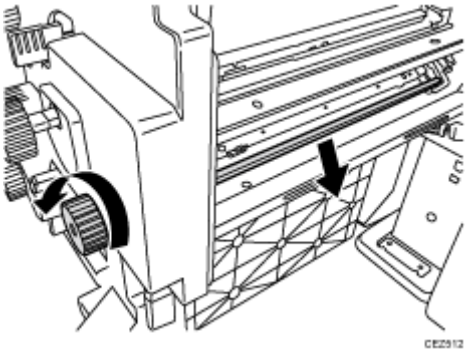
Solution:

Clean the blade.

1. **Open the front cover of the multi-folding unit.**
2. **Pull the multi-folding unit out.**

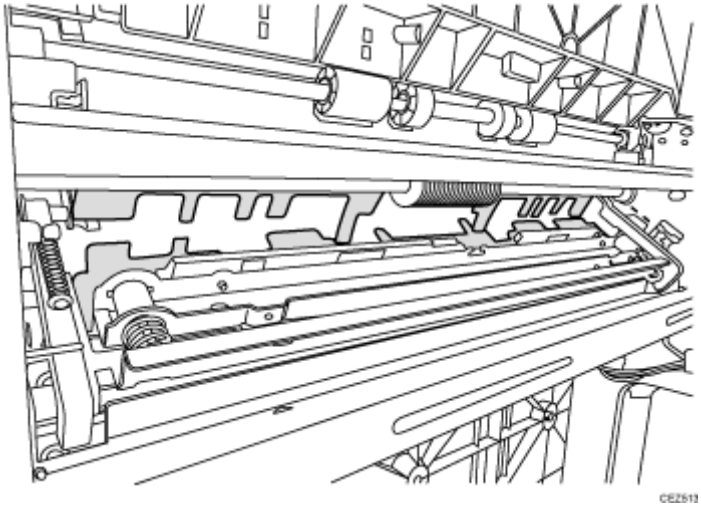


3. **Turn the N11 knob counterclockwise until the blade appears.**
   The blade is located in the right part of the multi-folding unit.



4. **Wipe the tip and top of the blade with a soft dry cloth.**

   Be careful not to damage the blade.

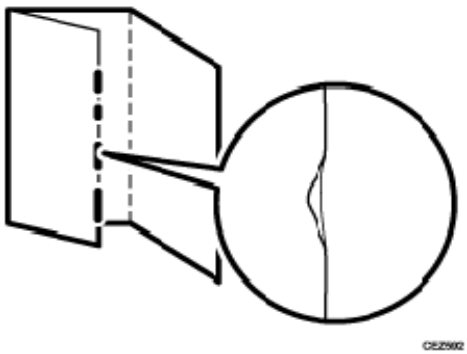


5. **After cleaning, restore the machine so that it resumes operation.**

   Apply multi-sheet folding and print 3-5 copies. The paper stain will disappear.

Edges of Letter Fold Bent

When letter folding is applied, the edge of the inner flap may become bent.



Solution:

The solution depends on whether letter folding is applied to multiple sheets or a single sheet.

<When letter folding is applied to multiple sheets>

1. **Load the paper the other side up.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

3. **In the [Finishing: Fold] group on the [Adjustment Settings for Skilled Operators] menu, set 0704: [Letter Fold-in Position 1 (Multi-sheet Fold)] to "0.0 mm".**
4. **In [General Features] in [System Settings], set [Letter Fold-in Position] for multiple sheets to "7 mm".**
5. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Contact your service representative.

<When letter folding is applied to a single sheet>

Note

- This procedure is applied especially to coated paper.
- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

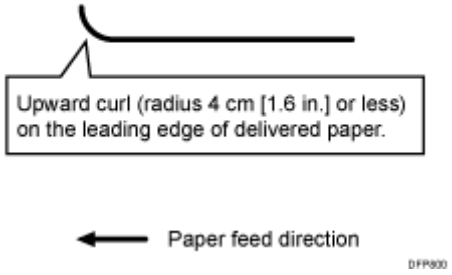
1. **In [General Features] in [System Settings], set [Letter Fold-in Position] for a single sheet to "7 mm".**
2. **In [Advanced Settings] for the custom paper you are using, select 140: [Letter Fold-in Posn 1: Single-sheet Fold].**
3. **Increase the value by 0.2 mm.**
4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Step 2 to 4. If the problem persists even though the setting value is 4 mm larger than the maximum value, contact your service representative.

Z-Folding is Not Performed Properly

Cause:

If a sheet is curled and its edge touches the guide board, proper folding may not be possible. This may occur if:



Solution:

1. **Load the paper the other way up.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

To follow the steps below, attach the decurler unit.

3. **In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, set 0304: [Adjust Paper Curl] to "Adjust [redacted] Curl".**
   To control the level of decurling, select "Weak" if the present setting is "Off" or "Strong" if the present value is "Weak".
4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Contact your service representative.

Note

- This folding error will not occur if uncurled paper is used or sheets that curl downward.

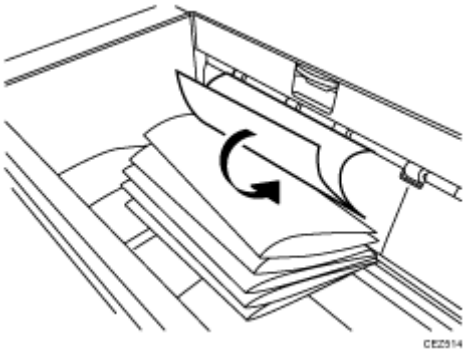
Folded Sheets Are Not Stacked Properly

Cause:

If a large number of half-folded multi-sheet is delivered, the edge of the sheets may bulge and some part of the edge will be swollen. If this happens, other sheets loaded on the bulged paper may turn over in the output tray.

This may occur if:

- Thick, relatively stiff paper is used.
- When 127: [Process Speed Setting: Productivity] or 128: [Process Speed Setting: Quality] in [Advanced Settings] for the custom paper you are using is set to [Low].

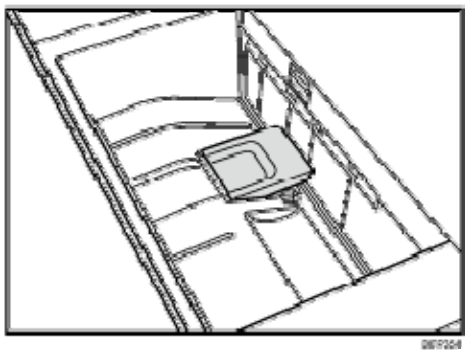


As a bundle is delivered, its folded edge may droop and catch on the stacked bundles, causing the delivered bundle to flip over.

Solution:

Use the Z-fold support tray for multi-folding unit.

This will reduce the angle of stacked bundles and prevent bundles flipping over as they are delivered.



For details about using the Z-fold support tray for multi-folding unit, see "About This Machine" supplied with the machine.

Note

- If the Z-fold support tray for the multi-folding unit is attached, folded paper such as letter-folded paper or gate-folded paper will not turn over in the output tray when delivered.

Ring Binding

Important

- Be sure not to exit from Energy Saver mode or to switch the machine on when the ring binder door is open and the binding unit is disconnected. Doing so will affect initialization, causing the ring binder function to become unavailable (although other functions will be unaffected).
- If you inadvertently do this, connect the ring binder's binding unit again, close the door, and then turn the power off and back on to restore normal operation.

SC756-48 Appears

Cause:

This may occur if the machine recovers from Energy Saver mode or the power is turned on while the ring binder tray is pulled out.

Solution:

1. **Push the ring binder tray in.**
2. **Close the cover.**
3. **Turn the machine on.**
4. **If the problem persists, contact your service representative.**

Buffer Pass Unit

The Fan Is Noisy

You can change the buffer pass unit fan activation setting according to the type of paper and ambient temperature.

1. **In the [Machine: Image Quality] group on the [Adjustment Settings for Skilled Operators] menu, change the value in 0203: [Buffer Pass Unit Fan Activation Setting].**

Note

- Depending on the setting, blocking (heat and pressure causing toner particles on stacked copies to form clumps which then detach) may occur.

High Capacity Stacker

Delivered Sheets Are Severely Curled

Cause:

Sheets with downward curls cause strong friction on the leading edges. This may result in paper misfeeds. Sheets will not be ejected completely and the trailing edges will be left inside the paper exit.

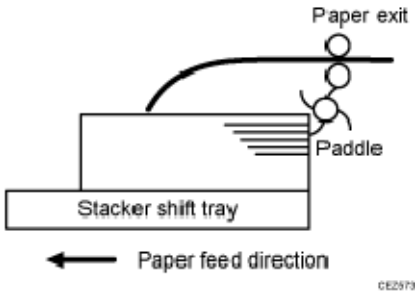
If this happens, other sheets may slip under the delivered sheets, so that the delivered sheets may be curled when loaded.

This may occur if:

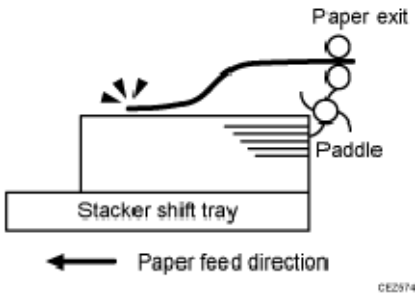
- A4 or larger coated paper weighing up to 135 g/m^2 (50 lb. Cover) is used.

<How the problem occurs>

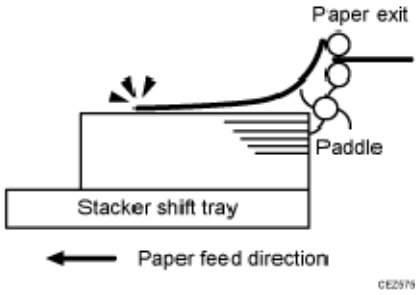
1. Downward curled paper is delivered to the stacker tray.



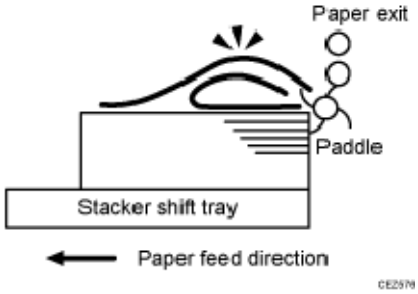
2. The leading edge of the sheet, while delivered, causes strong paper-to-paper friction against the top sheet of the stack. As there is no air gap between the sheets, and the delivered sheet becomes stuck.



3. The trailing edge of the sheet, while delivered, is left in the paper exit.



4. The next sheet to be delivered slips under the sheet still in the paper exit and bends back.



Solution:

Straighten out the sheet by decurling it upward.

1. **Load the sheets the other way up.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

To follow the steps below, attach the decurler unit.

3. **In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, set 0304: [Adjust Paper Curl] to [Adjust [redacted] Curl: Weak].**
4. **Print the image. Has the problem been resolved?**

Yes	Finished!

No	Go to the next step.

5. **Set 0304: [Adjust Paper Curl] to [Adjust [redacted] Curl: Strong].**
6. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Contact your service representative.

Delivered Sheets Are Not Aligned

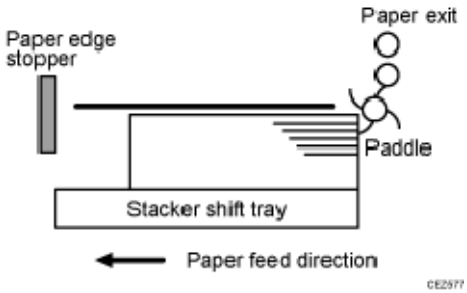
Cause:

When sheets are delivered to the stacker tray, because of paper-to-paper friction, the paddle fails to pull the trailing edge back into the front guide, resulting in misalignment.
The paper edge stopper also fails to push back the protruding leading edge.
This may occur if:

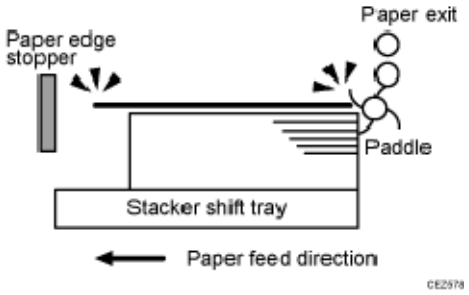
- Thick (280 g/m^2 [105 lb. Cover] or heavier), uncurled A3 or larger paper is used.

<How the problem occurs>

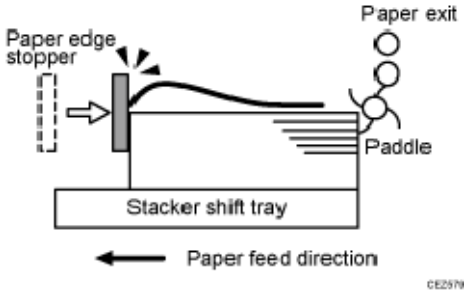
1. An uncurled sheet is delivered to the stacker shift tray.



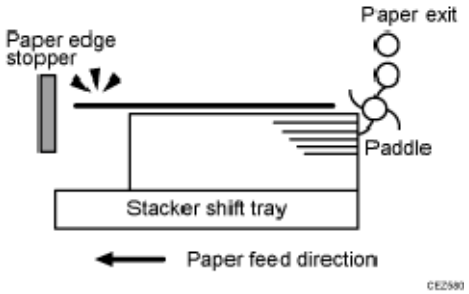
2. Strong friction occurs on the trailing edge so that the paddle cannot pull the sheet back and align the edges of the sheet with those of the stack.



3. The paper edge stopper fails to push back the protruding leading edge and align the sheet as required.



4. Stacked sheets are not aligned properly.



Solution:

Curl the sheet upward.

To do this, the decurler unit must be attached.

1. **In the [Machine: Paper Feed/ Output] group on the [Adjustment Settings for Skilled Operators] menu, set 0304: [Adjust Paper Curl] to [Adjust [redacted] Curl: Weak].**
2. **Print the image. Has the problem been resolved?**

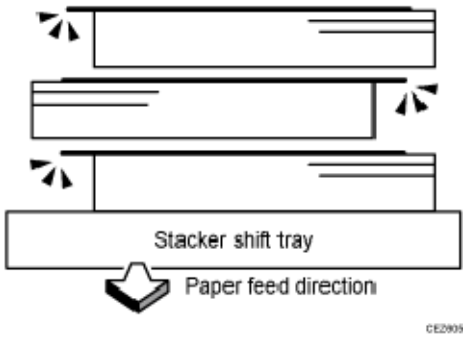
Yes	Finished!
No	Go to the next step.

3. **Set 0304: [Adjust Paper Curl] to [Adjust [redacted] Curl: Strong].**
4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Contact your service representative.

Note

- The top sheet of each offset bundle of delivered sheets may protrude above the rest of the bundle by about 7 mm.



The Machine Wrongly Detects That the Tray Is Full

Cause:

Depending on the paper size, the machine may detect that the shift tray has reached the maximum number of sheets that can be stacked on it.
This may occur if paper with a width of 191-261 mm (7.6 - 10.4 inches) is being used.

Solution:

< Paper with a width of 191–261 mm (7.6 - 10.4 inches) is being used >

1. **Load the sheets the other way up.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

To follow the steps below, attach the decurler unit.

3. **In the [Machine: Paper Feed/ Output] group of the [Adjustment Settings for Skilled Operators] menu, set 0304: [Adjust Paper Curl] to [Adjust Curl: Off].**
4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

5. **Set 0304: [Adjust Paper Curl] to [Adjust Curl: Weak].**
6. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

7. **Set 0304: [Adjust Paper Curl] to [Adjust Curl: Strong].**
8. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

9. **Set 0304: [Adjust Paper Curl] to [Adjust Curl: Weak].**
10. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

11. **Set 0304: [Adjust Paper Curl] to [Adjust Curl: Strong].**
12. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Contact your service representative.

The Paper Press Leaves an Impression on the Paper

Cause:

The pressure applied by the paper press leaves an impression on the paper.

Solution:

Insert an extra sheet of paper between the paper press and the paper stack.

Paper Pressed Down Insufficiently

Cause:

The screws on the handle of the paper cart and the bolts at its bottom are loose.

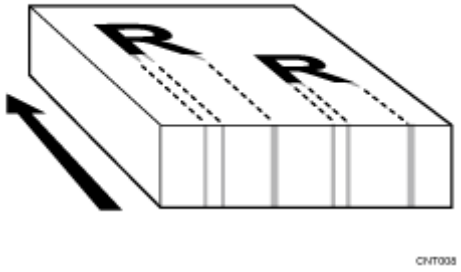
Solution:

Tighten the screws on the handle and the bolts at the bottom of the paper cart.

Other Post- Processing Options

Scratched Images and Stained Paper Edges

Scratched images or stained paper edges appear.



CNT033

Cause:

When a relatively stiff, thick paper is delivered, the entrance guide board for the transfer unit is warped toward the intermediate transfer belt due to the stiffness of the paper. The edge of the entrance guideboard comes into contact with the toner on the belt to cause images to be scratched and paper edges to be stained.

This may occur if:

- Paper with a thickness equivalent to Paper Weight 7 is used
- Paper with its grain parallel to the paper feed direction is used. For example, A3/DLT long grain paper is delivered, A4/LT short grain paper is delivered from its long edge, or A4/LT long grain paper is delivered from its short edge
- Paper is stored at low temperature or humidity

Solution:

Change the direction of paper grain for paper delivery.

Note

- When storing paper at low humidity, wrap the paper in coated paper or a plastic sheet.

Improving Throughput

Reducing the Waiting Time Prior to Printing

After receiving a print job, the machine usually stops to let the fusing temperature reach an appropriate level for printing.

The waiting time for the fusing unit to cool down may be quite long, especially before printing on thin paper. By decreasing the fusing temperature during standby, you can reduce the waiting time.

By changing the fusing temperature to feed paper after warm-up, you can also reduce the waiting time.

Note

- When printing on paper other than thin paper, we recommend leaving the above settings unchanged.
- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.
- After performing the solution, it is recommended to perform the color calibration of the external controller.

1. **In the [Machine: Image Quality] group on the [Adjustment Settings for Skilled Operators] menu, decrease the temperature by 10°C in 0207: [Adjust Fusing Temperature on Standby].**
2. **Decrease the value in [Temperature on Standby Mode], [Temperature on Panel Off Mode], and [Temperature Before Performing a Process] by 10°C.**
   If the problem persists, proceed to the next step.
3. **Register the paper in the custom paper profile.**
4. **Set the value in 090: [Adj Fsng Tmp to Trnsf Ppr: Ppr: Qual] or 092: [Adj Fsng Tmp to Trnsf Ppr: Ppr: Qual: S] to "11".**
   When printing in special color only, select 092: [Adj Fsng Tmp to Trnsf Ppr: Ppr: Qual: S].

Improving Throughput when Continuously Performing Black and White and Color Printing

When a combination of black-and-white, full-color and special color printing is performed, switching color modes takes time, resulting in insufficient throughput.

Optimize the amount of sheets the machine prints in the current color mode before switching to another mode.

You can switch the color mode as follows:

- From special-color to full-color
- From special-color to black-and-white
- From full-color to black-and-white

Because switching color modes takes time, increasing the amount of sheets before modes are switched will improve throughput.

1. **In the [Machine: Productivity] group on the [Adjustment Settings for Skilled Operators] menu, change the value in 0401: [Auto Color Selection Setting].**
   Optimize the amount of sheets for your operating environment.

Value	Behavior
1 (Minimum)	▪ When black-and-white printing is performed after full color printing, full color mode switches to black-and-white mode after 1 black-and-white sheet is printed in full color mode. Although throughput is not improved by this setting, cyan, magenta, and yellow development units are not used for black-and-white printing. ▪ When black-and-white printing is performed after special color printing, special color mode switches to black-and-white mode after 1 black-and-white sheet is printed in special color mode. Although throughput is not improved by this setting, special color development unit is not used for black-and-white printing. ▪ When full color printing is performed after special color printing, special color mode switches to full color mode after 1 full color sheet is printed in special color mode. Although throughput is not improved by this setting, special color development unit is not used for full color printing.

Value	Behavior
10 (Maximum)	▪ When black-and-white printing is performed after full color printing, full color mode switches to black-and-white mode after 10 black-and-white sheets are printed in full color mode. ▪ When black-and-white printing is performed after special color printing, special color mode switches to black-and-white mode after 10 black-and-white sheets are printed in special color mode. ▪ When full color printing is performed after special color printing, special color mode switches to full color mode after 10 full color sheets are printed in special color mode.

Note

- If black-and-white printing is performed in full-color mode, cyan, magenta, and yellow development units are used for black-and-white printing, so that the Photoconductor unit needs to be replaced in a shorter period of time.
- If black-and-white printing is performed in special color mode, the special color development units are used for black-and-white printing, so that the Photoconductor unit needs to be replaced in a shorter period of time.
- When black-and-white printing is performed after full color printing, full color mode is always enabled as color printing cannot be performed in black-and-white mode.
- When special color printing is performed after black-and-white printing, special color mode is always enabled as color printing cannot be performed in black-and-white mode.
- Special color mode is available for Pro C7100X, Pro C7110X, Pro C7100SX, and Pro C7110SX.

When Using Metallic Paper

Glossy ghosting may occur on metallic paper due to the slipperiness and low fusibility of the metallic paper surface.

To improve the throughput when printing on metallic paper, feed the paper in the following way.

- A4: LEF direction
- LT: LEF direction

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.
- After performing the solution, it is recommended to perform the color calibration of the external controller.

1. **Register the paper in the custom paper profile.**
2. **In [Advanced Settings] for the custom paper you are using, adjust the interval between the feeding of each sheet.**

   <Printing in full color/Printing in black and white/Printing in full color including the clear toner while the special color is not set to high quality>

   Set 129: [Paper Feed Interval Setting: Productivity] to "100".

   <Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

   Set 130: [Paper Feed Interval Setting: Quality] to "100".
3. **Print the image. Is the luster ghost image within the permissible range?**

Yes	Finished!
No	At present, you cannot improve the throughput. Change the setting back to the previous one.

Advanced Instructions

Operating Procedure for Color Calibration

To improve color reproduction and achieve color output with consistent quality, follow this procedure.

It is recommended to perform color calibration for each print job.

To improve CMYK image reproduction, adjust image density, and then perform calibration.

Also, you can improve mixed color reproduction by adjusting image density and color registration and performing calibration. An optional EFI Spectrometer ES-2000 is required to perform calibration.

1. **In the [Machine: Image Quality] group on the [Adjustment Settings for Skilled Operators] menu, select 0201: [Adjust Image Density/ DEMS] and execute [Image Density Adjustment: Manual Execute].**
2. **When the color density adjustment is completed, press [Exit].**
3. **Press [Exit].**
4. **Press the [User Tools] key.**
5. **Press [Maintenance].**
6. **Press [Color Registration].**
7. **When the color registration is completed, press [Exit].**
8. **Start Fiery Command WorkStation 5.**
9. **Click [Calibrate] in the [Job Center] tab.**
10. **Click [Expert] in the upper right corner of the "Calibrator" dialog box.**
11. **Specify the following settings in the [Calibrator] dialog box.**
    - In the [1. Select Measurement Method] menu, select [ES-2000].
    - In the [2. Check Print Settings] menu, select the paper type you are using from the [NAME] pull-down menu.
    - In the [3. Generate Measurement Page] menu, click [Print].
12. **Specify the following settings in the Print Option dialog box.5.**
    - In the [Page Type] menu, select [21 Sorted Patches] or [34 Sorted Patches].
    - In the [Paper Size] menu, select the paper size you want to use to print a test page. The paper size you select must conform to the patches you select in the [Page Type] menu.
      [21 Sorted Patches]: A4 or LTR

[34 Sorted Patches]: A3, 11 × 17, 12 × 18, 13 × 19

- In the [Input Tray] menu, select the paper tray loaded with the paper for patch printing.
- Click [Print].

13. **When patch printing is completed, click [Measure] in the [4. Get Measurements] menu.**
14. **Check that the page type and size are correct, and then click [Measure].**
15. **Check the printed patches using ES-2000.**
16. **After checking all the patches, select [Measurement vs. Target] in the [6. View Measurements (optional)] menu, and then click [View].**
17. **Using the "Measurement vs. Target" screen, calculate the difference between each color's D-Max value in the measurement column and that in the target column.**
    - If the difference is equal to +0.3 or lower and -0.3 or higher for cyan, magenta, and black, or if the difference is equal to +0.1 or lower and -0.1 or higher for yellow, go to the next step.
    - If the difference is equal to +0.31 or higher and -0.31 or lower for cyan, magenta, and black, or if the difference is equal to +0.11 or higher and -0.11 or lower for yellow, execute 0515: [Execute Developer Refreshing] in the [Machine: Maintenance] group in the [Adjustment Settings for Skilled Operators], and then return to Step 1.
18. **Click [Done] two times to close “Calibrator” dialog box.**

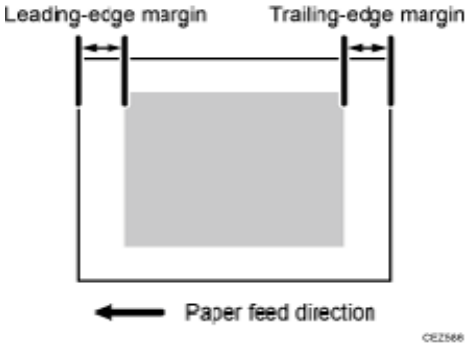
Note

- The color reproducibility may be improved after executing 0515: [Execute Developer Refreshing] in the [Machine: Maintenance] group on the [Adjustment Settings for Skilled Operators] menu.
- After this procedure is repeated three times, the difference between each color's [D-Max] value in the measurement column and that in the target column may not be equal to +0.3 or lower and -0.3 or higher for cyan, magenta, and black, or +0.1 or lower and -0.1 or higher for yellow. If this is the case, print solid images on both sides of 100 sheets of A4 or LTR paper continuously. Desired results may be obtained.
- If the difference between each color's [D-Max] value in the measurement column and that in the target column may not be equal to +0.3 or lower and -0.3 or higher for cyan, magenta, and black, or +0.1 or lower and -0.1 or higher for yellow, color reproducibility may be improved after printing solid images on both sides of 100

sheets of A4 or LTR paper continuously.

Shortening the Leading/Trailing Edge Margins

Depending on the paper being used, the margins on the copy vary. You can shorten the leading/trailing edge margins.



Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

1. **In [Advanced Settings] for the custom paper you are using, adjust the leading/trailing edge margins.**

   <Printing in full color/Printing in black and white/Printing in full color including the clear toner while the special color is not set to high quality>

   Reduce the value by 0.5 mm in 009: [Adj. Erase Margin of Leadg. Edge: Prod.] or 011: [Adj. Erase Marg. Of Trailg. Edge: Prod.].

   <Printing in full color including the clear toner and the special color is set to high quality/printing in full color including the white toner>

   Reduce the value by 0.5 mm in 010: [Adj. Erase Margin of Leadg. Edge: Qual.] or 012: [Adj. Erase Marg. Of Trailg. Edge: Qual.].

2. **Keep reducing the value by 0.5 mm, checking that paper is not jammed.**

Note

- The adjusted margin cannot be applied to masked images that are solid-filled or contain ruled lines at the leading/trailing edges.
- Reducing the leading/trailing edge margin may result in a paper jam on the fusing belt stripper plate.

Adjusting the Image Position of the Either Side of the Paper

Adjusting the Image Position on Side 1

<If custom paper is used>

Perform the solution described in "(a) Adjust the image skew", "(b) Adjust the image position (If custom paper is used)", "(c) Adjust the magnification (Across feed direction)" and then "(d) Adjust the magnification (With feed direction)".

<If custom paper is not used>

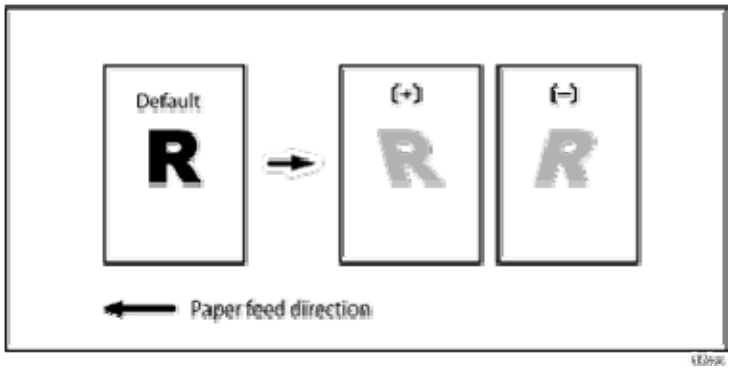
Perform the solution described in "(a) Adjust the image skew", "(e) Adjust the image position (If custom paper is not used)".

Note

- You cannot adjust the vertical magnification and horizontal magnification of all types of paper other than custom paper. Therefore, it is recommended to pre-register the type of paper in use as a custom paper.

(a) Adjust the image skew

Adjust the vertical skew of the image.



1. **Print the image in black and white.**
2. **Check the direction of the skew.**
3. **In the [Machine: Image Position] group on the [Adjustment Settings for Skilled Operators] menu, select 0107: [Perpendicularity Adjustment] and adjust the value.**
   Move the cursor to [+] to skew the image counterclockwise or to [−] to skew it clockwise.
4. **Print the image in black and white. Check the image skew. If the problem persists, increase the value slightly.**
5. **Execute color registration.**

In executing color registration, the black adjustment will also be applied to cyan, magenta, yellow and special color.

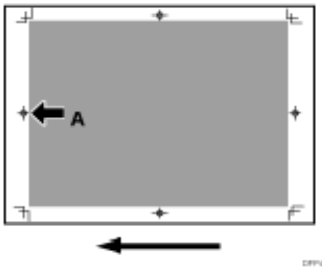
For details about color registration, see "Adjusting the Color Registration" in the Troubleshooting guide supplied with the machine.

Note

- In 0107: [Perpendicularity Adjustment], you cannot individually adjust the image position on sides 1 and 2.
- You cannot skew paper with 0107: [Perpendicularity Adjustment]. For details about adjusting paper skew, page 154 "Paper Skew".
- If it is difficult to check and adjust the image position on the printed sheet, print one side of the format used in page 237 "Aligning the Image Position on Side 2 to That on Side 1 (Using a Template to Align the Image Position on Side 1 and 2)".

(b) Adjust the image position (If custom paper is used)

Adjust the vertical and horizontal image position so that the center (A) of the leading edge of the image is aligned to the registration mark.



In [Advanced Settings] for the custom paper you are using, adjust the image position.

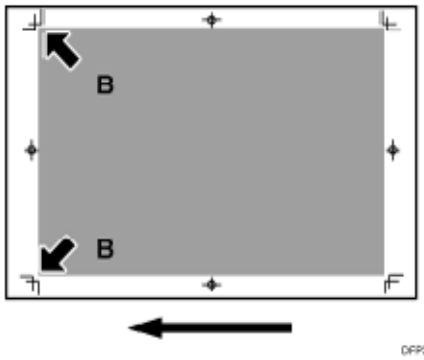
- 001: [Adj Image Position of Side1 Across Feed]
- 003: [Adj Image Position of Side1 With Feed]

Note

- For details about specifying settings in the [Adjustment Settings for Skilled Operators] menu, and [Advanced Settings] menu, see the Adjustment Item Menu Guide.
- If the problem persists even though you have adjusted the setting to its maximum and minimum values, contact your service representative.
- If it is difficult to check and adjust the image position on the printed sheet, print one side of the format used in page 237 "Aligning the Image Position on Side 2 to That on Side 1 (Using a Template to Align the Image Position on Side 1 and 2)".

(c) Adjust the magnification (Across feed direction)

Adjust the horizontal magnification to adjust the width between the front and back corners (B) on the leading edge of the image.



In [Advanced Settings] for the custom paper you are using, adjust the value in 005: [Adj Magnification of Side1 Across Feed].

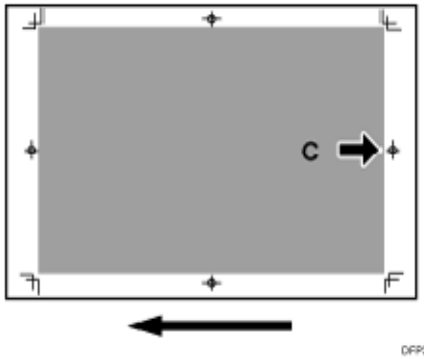
Press [+] to increase the scaling and [−] to reduce it.

Note

- If it is difficult to check and adjust the image position on the printed sheet, print one side of the format used in page 237 "Aligning the Image Position on Side 2 to That on Side 1 (Using a Template to Align the Image Position on Side 1 and 2)".

(d) Adjust the magnification (With feed direction)

Adjust the vertical magnification to adjust the length (position of (C)) of the image.



In [Advanced Settings] for the custom paper you are using, adjust the value in 007: [Adj Magnification of Side1 With Feed].

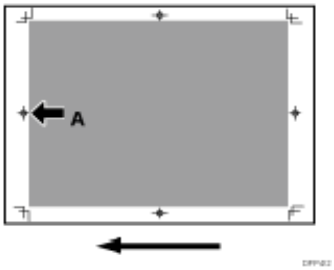
Press [+] to increase the scaling and [−] to reduce it.

Note

- If it is difficult to check and adjust the image position on the printed sheet, print one side of the format used in page 237 "Aligning the Image Position on Side 2 to That on Side 1 (Using a Template to Align the Image Position on Side 1 and 2)".

(e) Adjust the image position (If custom paper is not used)

Adjust the vertical and horizontal image position so that the center (A) of the leading edge of the image is aligned to the registration mark.



In the [Machine: Image Position] group on the [Adjustment Settings for Skilled Operators] menu, adjust the image position.

- 0101: [Adjust Image Position Across Feed Direction]
- 0102: [Adjust Image Position With Feed Direction]

Note

- For details about specifying settings in the [Adjustment Settings for Skilled Operators] menu, and [Advanced Settings] menu, see the Adjustment Item Menu Guide.
- If the problem persists even though you have adjusted the setting to its maximum and minimum values, contact your service representative.
- If it is difficult to check and adjust the image position on the printed sheet, print one side of the format used in page 237 "Aligning the Image Position on Side 2 to That on Side 1 (Using a Template to Align the Image Position on Side 1 and 2)".

Adjusting the Image Position on Side 2

If you want to align an image position on Side 2 to an image position on Side 1 that has been adjusted, see page 237 "Aligning the Image Position on Side 2 to That on Side 1 (Using a Template to Align the Image Position on Side 1 and 2)".

<If custom paper is used>

Perform the solution described in "(a) Adjust the image skew", "(b) Adjust the image position (If custom paper is used)", "(c) Adjust the magnification (Across feed direction)" and then "(d) Adjust the magnification (With feed direction)".

<If custom paper is not used>

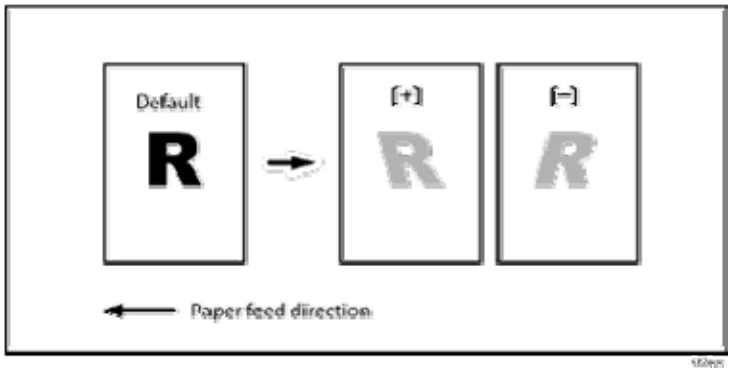
Perform the solution described in "(a) Adjust the image skew", "(e) Adjust the image position (If custom paper is not used)".

Note

- You cannot adjust the vertical magnification and horizontal magnification of all types of paper other than custom paper. Therefore, it is recommended to pre-register the type of paper in use as a custom paper.

(a) Adjust the image skew

Adjust the vertical skew of the image.



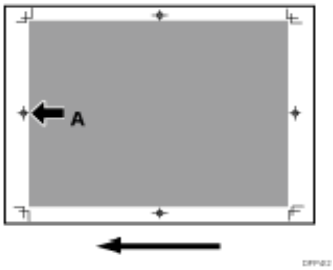
1. **Print the image in black and white.**
2. **Check the direction of the skew.**
3. **In the [Machine: Image Position] group on the [Adjustment Settings for Skilled Operators] menu, select 0107: [Perpendicularity Adjustment] and adjust the value.**
   Move the cursor to [+] to skew the image counterclockwise or to [−] to skew it clockwise.
4. **Print the image in black and white. Check the image skew. If the problem persists, increase the value slightly.**
5. **Execute color registration.**
   In executing color registration, the black adjustment will also be applied to cyan, magenta, yellow and special color.
   For details about color registration, see "Adjusting the Color Registration" in the Troubleshooting guide supplied with the machine.

Note

- In 0107: [Perpendicularity Adjustment], you cannot individually adjust the image position on sides 1 and 2.
- You cannot skew paper with 0107: [Perpendicularity Adjustment]. For details about adjusting paper skew, page 154 "Paper Skew".
- If it is difficult to check and adjust the image position on the printed sheet, print one side of the format used in page 237 "Aligning the Image Position on Side 2 to That on Side 1 (Using a Template to Align the Image Position on Side 1 and 2)".

(b) Adjust the image position (If custom paper is used)

Adjust the vertical and horizontal image position so that the center (A) of the leading edge of the image is aligned to the registration mark.



In [Advanced Settings] for the custom paper you are using, adjust the image position.

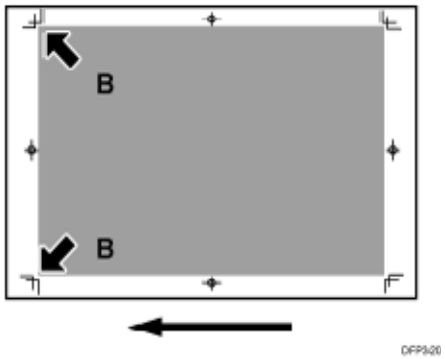
- 002: [Adj Image Position of Side2 Across Feed]
- 004: [Adj Image Position of Side2 With Feed]

Note

- For details about specifying settings in the [Adjustment Settings for Skilled Operators] menu, and [Advanced Settings] menu, see the Adjustment Item Menu Guide.
- If the problem persists even though you have adjusted the setting to its maximum and minimum values, contact your service representative.
- If it is difficult to check and adjust the image position on the printed sheet, print one side of the format used in page 237 "Aligning the Image Position on Side 2 to That on Side 1 (Using a Template to Align the Image Position on Side 1 and 2)".

(c) Adjust the magnification (Across feed direction)

Adjust the horizontal magnification to adjust the width between the front and back corners (B) on the leading edge of the image.



In [Advanced Setting] for the custom paper you are using, select 006: [Adj Magnification of Side2 Across Feed].

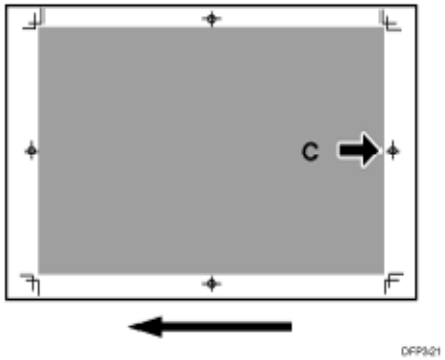
Press [+] to increase the scaling and [−] to reduce it.

Note

- If it is difficult to check and adjust the image position on the printed sheet, print one side of the format used in page 237 "Aligning the Image Position on Side 2 to That on Side 1 (Using a Template to Align the Image Position on Side 1 and 2)".

(d) Adjust the magnification (With feed direction)

Adjust the vertical magnification to adjust the length (position of (C)) of the image.



In [Advanced Setting] for the custom paper you are using, select 008: [Adj Magnification of Side2 With Feed].

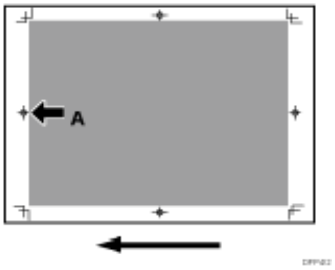
Press [+] to increase the scaling and [−] to reduce it.

Note

- If it is difficult to check and adjust the image position on the printed sheet, print one side of the format used in page 237 "Aligning the Image Position on Side 2 to That on Side 1 (Using a Template to Align the Image Position on Side 1 and 2)".

(e) Adjust the image position (If custom paper is not used)

Adjust the vertical and horizontal image position so that the center (A) of the leading edge of the image is aligned to the registration mark.



In the [Machine: Image Position] group on the [Adjustment Settings for Skilled Operators] menu, adjust the image position.

- 0101: [Adjust Image Position Across Feed Direction]
- 0102: [Adjust Image Position With Feed Direction]

Note

- For details about specifying settings in the [Adjustment Settings for Skilled Operators] menu, and [Advanced Settings] menu, see the Adjustment Item Menu Guide.
- If the problem persists even though you have adjusted the setting to its maximum and minimum values, contact your service representative.
- If it is difficult to check and adjust the image position on the printed sheet, print one side of the format used in page 237 "Aligning the Image Position on Side 2 to That on Side 1 (Using a Template to Align the Image Position on Side 1 and 2)".

Aligning the Image Position on Side 2 to That on Side 1 (Using a Template to Align the Image Position on Side 1 and 2)

This section explains how to adjust settings so that images on both sides are aligned using duplex printing.

First, print the format and measure the length of specified parts. By specifying the measured length on the machine, you can adjust the image position automatically.

It is necessary to specify the settings for each paper size being used. The adjusted settings are stored as custom paper presets and can be applied again in the future.

To adjust the image position, the machine administrator privilege is required.

Supported paper size and paper type

Supported Paper Size

A3, A4, A4, B4, B5, B5, DLT, Legal, Letter, Letter, Government LG, 8K, 16K, 16K, 12 × 18, 13 × 19.2, 13 × 19, 13 × 18, SRA3, SRA4, SRA4

Unsupported Paper Type

Index paper, tracing paper, label paper, envelope, magnet paper, clear file

Note

- There is no limit to paper thickness.

Preparation

To adjust the image position, you need to:

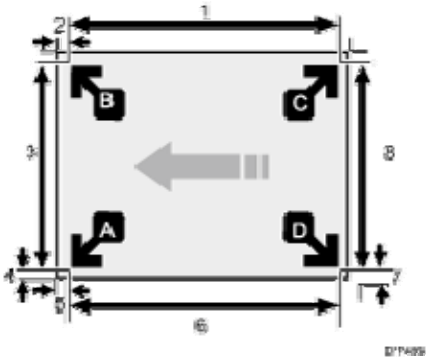
- Prepare a 500 mm or longer stainless steel ruler (with the scale in 0.5 mm) and magnifier (for measuring the format)
- Check the supported paper size and paper type.

- From the supplied CD, print the file of the format matching the size of the paper requiring image position adjustment.
- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.
- Adjust the image position on Side 1. For details about adjusting the position, see page 230 "Adjusting the Image Position on Side 1".
  002: [Adj Image Position of Side2 Across Feed]
  004: [Adj Image Position of Side2 With Feed]
  006: [Adj Magnification of Side2 Across Feed]
  008: [Adj Magnification of Side2 With Feed]

Printing the Format

Using the computer and the machine, print the format matching the size of the paper requiring image position adjustment.

1. **Continuously print the format on both sides of 10 sheets.**
   The format has arrows on 4 corners.
2. **Measure the length of specified parts on the 6th sheet among the printed copies of the format.**
   Using the ruler and magnifier, measure the length between each corner of the paper and the top of its adjoining arrow, and the length between the top of arrows with the scale in 0.1 mm.



   1. **Length between the top of each arrow**
   2. **Length between each corner and the top of its adjoining arrow**
   3. **Length between the top of each arrow**
   4. **Length between each corner and the top of its adjoining arrow**
   5. **Length between each corner and the top of its adjoining arrow**
   6. **Length between the top of each arrow**

7. **Length between each corner and the top of its adjoining arrow**

8. **Length between the top of each arrow**

3. **Write the measured value within the framework of the format.**

   In total (including both sides of the sheet), measure the position of 16 parts.

Note

- Depending on the paper size, when you print continuously, the feeding interval differs for each sheet of the first and last 3 to 4 sheets and the sheets in the middle (in the case of printing 10 sheets, the 5th and 6th sheets). Therefore, it is recommended to use the 6th sheet for measurement.

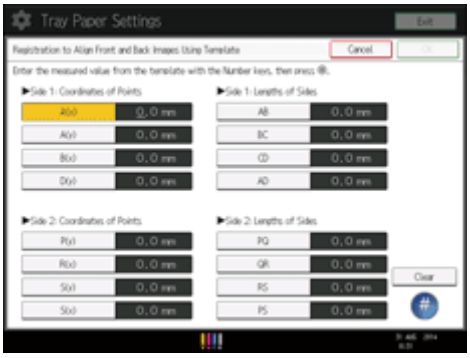
Entering the Value

When you specify the lengths of the template after measuring them, the values to adjust the image position are automatically calculated and applied.

1. **In [Advanced Settings] for the custom paper you are using, select [Registration to Align Front and Back Images Using Template].**
2. **Enter the value you wrote on the printed template.**

   Select the item, enter the value using the number keys, and then press [#].

   You can enter values from 0.1 to 999.9 mm in 0.1-mm increments.



3. **Press [OK].**
4. **Press [Exit].**
5. **Press [OK].**
6. **Press [Overwrite].**
7. **Press [Yes].**
8. **Press [Exit].**

Checking Adjusted Results

1. **From the supplied CD, print the file of the format matching the size of the paper requiring image position adjustment. Continuously print the format on both sides**

of 10 sheets.

2. **Using the 6th sheet among the printed copies, check whether any misregistration occurs on the front and back of the paper.**
   - When using thin paper, check for misregistration by seeing through the paper.
   - When using thick paper or paper that cannot be seen through, pierce the paper with a tool such as an eyeleteer and check for misregistration.

Eliminating misregistrations on the front and back of the paper

Adjust the image position and magnification on Side 2 to match those on Side 1.

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

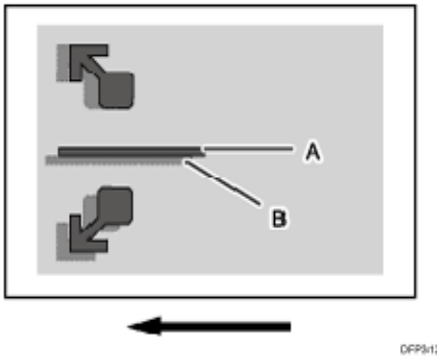
Adjustment Method

1. **From the supplied CD, print the file of the format matching the size of the paper requiring image position adjustment. Continuously print the format on both sides of 10 sheets.**
   Use the 6th sheet among the printed copies for adjustment.
2. **Through visual inspection of the 4th, 5th, and 6th sheets, check that misregistrations on Side 1 and 2 are almost the same.**
   If not, adjust the misregistrations according to the usual method.
3. **In [Advanced Settings] for the registered custom paper preset, adjust the following settings to match the image position on Side 1.**
   002: [Adj Image Position of Side2 Across Feed]
   004: [Adj Image Position of Side2 With Feed]
   006: [Adj Magnification of Side2 Across Feed]
   008: [Adj Magnification of Side2 With Feed]

Adjusting the image position in the vertical and horizontal directions

<Across feed direction>

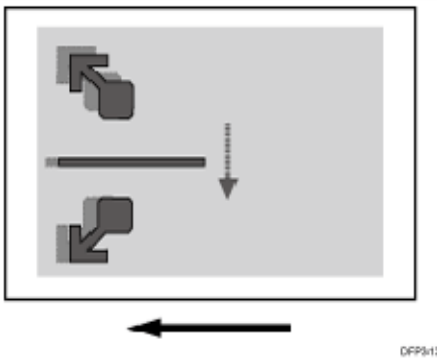
Adjusting the center line (A) on Side 2 to match the center line (B) on Side 1



In [Advanced Setting] for the custom paper you are using, select 002: [Adj Image Position of Side2 Across Feed].

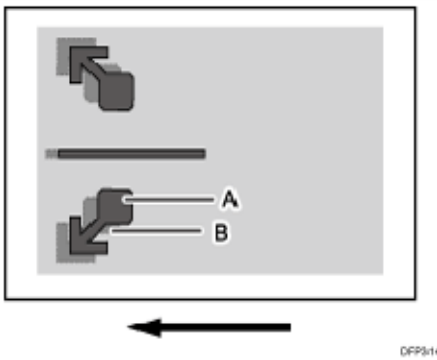
Press [+] to shift the image to the top.

Press [−] to shift the image to the bottom.



<With feed direction>

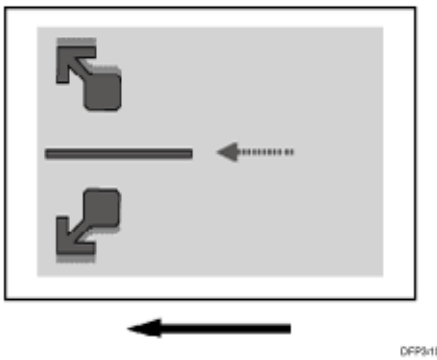
Adjusting the image (A) on the leading edge of the paper on Side 2 to match the corresponding image (B) on Side 1



In [Advanced Setting] for the custom paper you are using, select 004: [Adj Image Position of Side2 With Feed].

Press [+] to shift the image to the left (trailing edge).

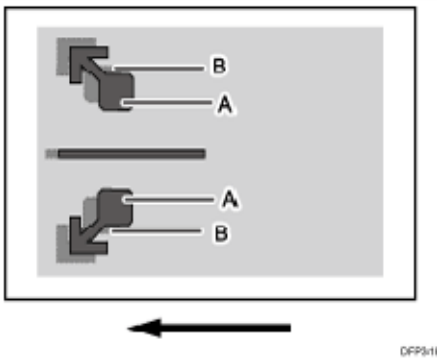
Press [−] to shift the image to the right (leading edge).



Adjusting magnification in the vertical and horizontal directions

<Across feed direction>

Adjusting magnification to match the length between the arrows (A) on the leading edge of the paper on Side 2 to the length between the arrows (B) on Side 1



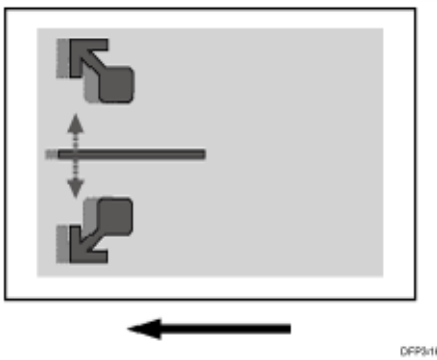
In [Advanced Setting] for the custom paper you are using, select 006: [Adj Magnification of Side2 Across Feed].

Press [+] to increase the scaling.

Press [−] to reduce the scaling.

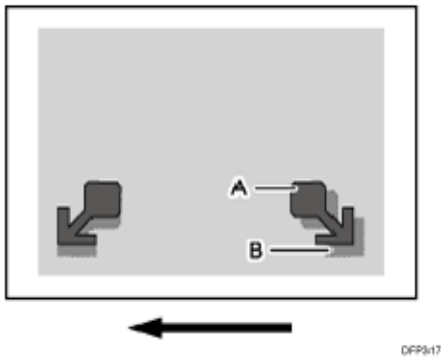
The adjustment value is applied evenly both upward and downward.

To feed A3 paper with its short side parallel to the paper feed direction, increase the value by 0.025% to move the image by approximately 0.1 mm.



<With feed direction>

Adjusting magnification to match the position of the arrow (A) on the trailing edge of the paper on Side 2 to the position of the arrow (B) on Side 1

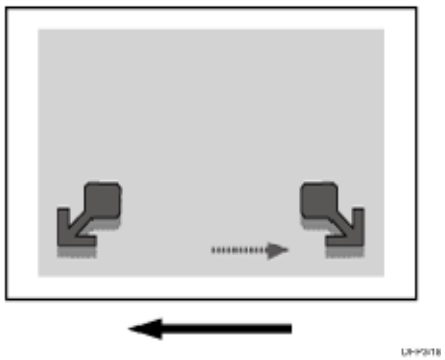


In [Advanced Setting] for the custom paper you are using, select 008: [Adj Magnification of Side2 With Feed].

Press [+] to increase the scaling.

Press [−] to reduce the scaling.

To feed A3 paper with its long side parallel to the paper feed direction, increase the value by 0.025% to move the image by approximately 0.07 mm.



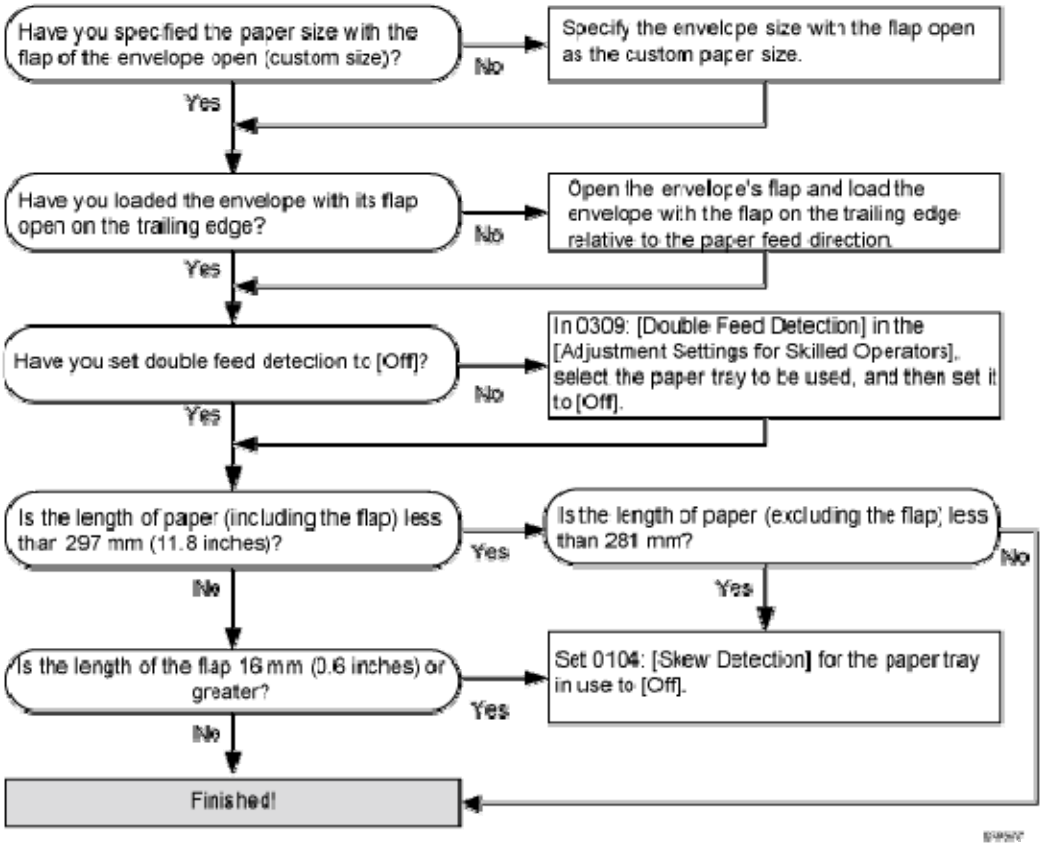
When to check for misregistrations on the front and back of the paper

Check for misregistrations on the front and back of the paper when:

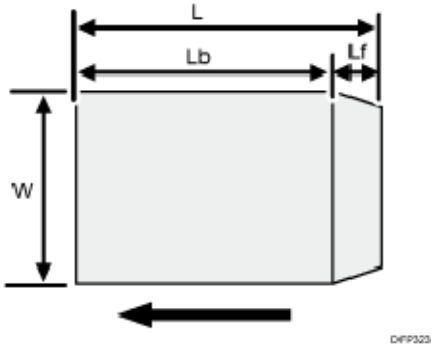
- Using paper of a different lot, means of acquisition, or storage condition
- Changing an advanced fusing settings
- The machine's ambient temperature has changed drastically. For instance, the machine's adjustment values and settings are checked in summer while the machine is used in winter)
- Changing the paper size in a custom paper preset
- Registering a custom paper preset based on an already registered custom paper preset

Envelopes

Before printing on envelops, carry out the following settings;



Specifying the Paper Size and Orientation



W: Paper width

L: Paper length

Lf: Flap length

Lb: Length without the flap

Creases, Wavy Streaks, or Fusing Error

Creases occur when printing on an envelope. Creases or a fusing error occur when printing on an envelope.

Cause:

This may occur if:

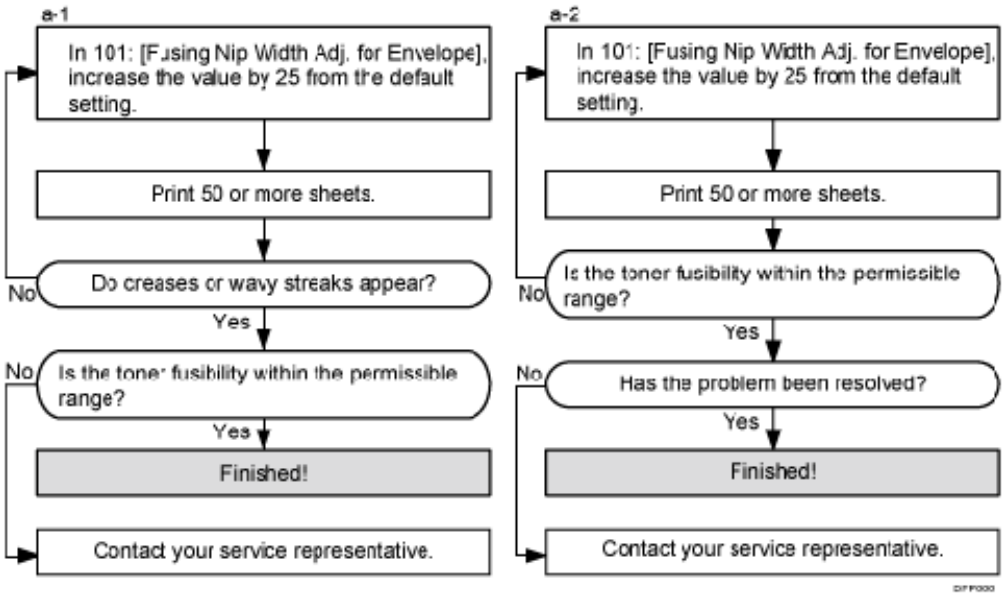
- When storing the envelope at high humidity

Note

- To adjust the following settings, pre-register the type of paper in use as a custom paper. For details about registering custom papers, see "Registering a Custom Paper", Paper Settings.

Solution:

Perform the workflow at a-1 for a wavy streak and the workflow at a-2 for a fusing error.



Note

- After performing the solution, it is recommended to perform the color calibration of the external controller.
- Check the toner fusibility as follows:
  - The printed image does not come off.
  - The toner does not come off even if it is lightly rubbed by a nail.
  - The toner does not come off even if it is rubbed by the cloth for cleaning the contact glass.