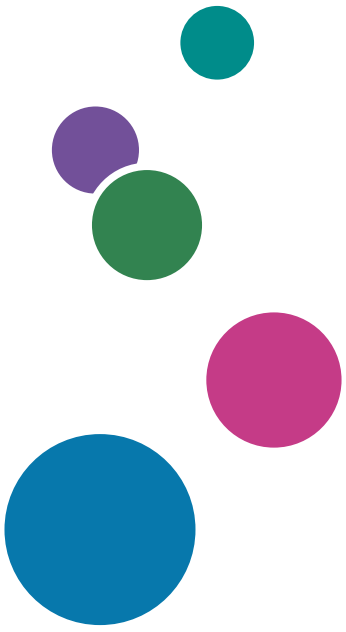
Pro C9500/C9500H

Shared Maintenance Offering: Troubleshooting

Original Instructions



For safe and correct use, be sure to read Safety Information separately provided before using the machine.

TABLE OF CONTENTS

5. Image Quality Problem: Spots

6. Image Quality Problem: Full Page

7. Troubles Related to Paper Feeding and Delivery

8. Post-Processing Option Troubleshooting

9. Advanced Instructions

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.

1. 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 AC 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.

About the Display for Options

This machine displays all of the adjustment items in the [Operator Adjust.] menu and detailed 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 "Machine Options", Specifications.

Before You Change a Setting

Important

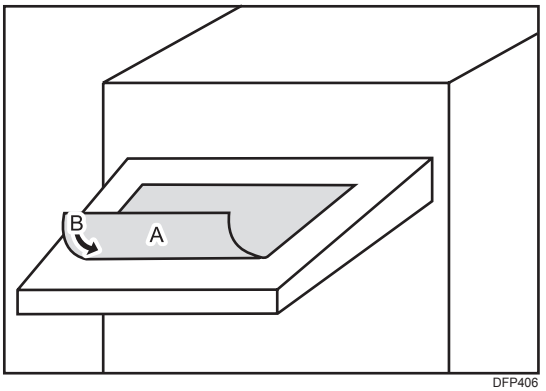
- If the problem persists despite the setting being changed, restore the value you made a note of.
- Operating the machine with the changed setting may cause problems such as reduced print quality.
- If the problem persists even though the setting has been changed, restore the value noted. Operating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

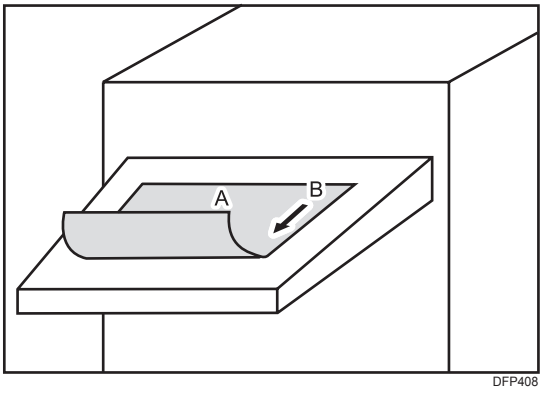


DFP406

A. Side 1

B. Paper feed direction of Side 1

Single-sided printing: Printed side face up

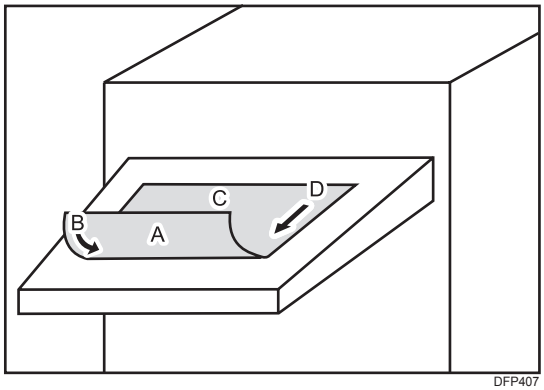


DFP408

A. Side 1

B. Paper feed direction of Side 1

Duplex printing



A. Side 1

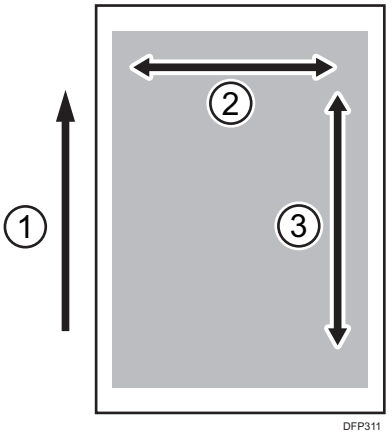
B. Paper feed direction of Side 1

C. Side 2

D. Paper feed direction of Side 2

Note about Vertical (In-track) and Horizontal (Cross-track) Directions

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

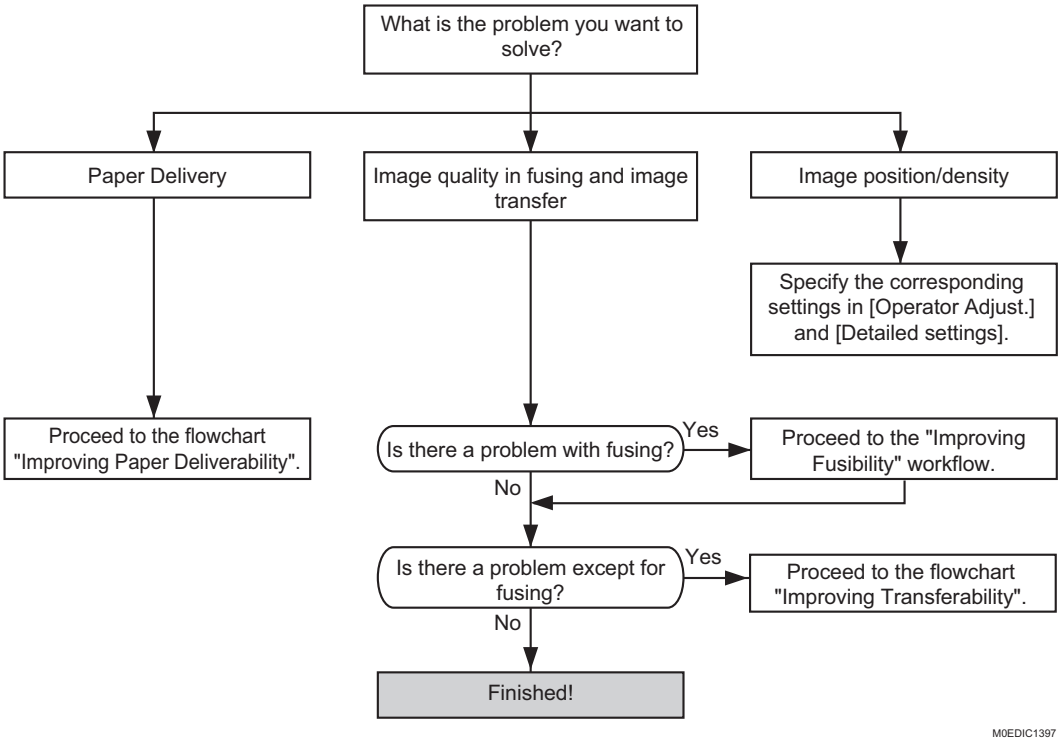


1. **Paper feed direction**
2. **Horizontal (Cross-track)**
3. **Vertical (In-track)**

2. 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 "Changing Tray Paper Settings", 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 [Detailed settings] for custom paper, select 1241: [Fusing Temperature] and increase the value for [Heat Roller Temp] 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 degrees.

3. **Repeat Step 2.**

   If the problem persists even if you increase the temperature to 190 degrees, 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.

1. **In [Detailed settings] for the custom paper, set [Process Speed Setting] in 1331: [Motor Speed] to [Low Speed].**
2. **Print the image and check toner fusion. Has the problem been resolved?**

Yes	Finished!
No	Contact your service representative.

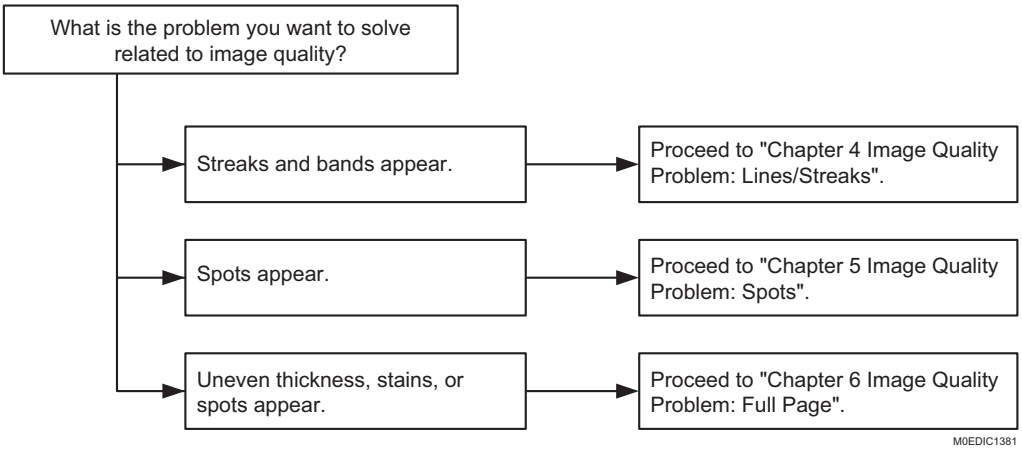
Note

- Changing the fusing temperature or changing the process speed may produce one or more of the following side effects:
  - Paper curling
  - Paper misfeeding
  - Blister-like white spots
  - 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 optical cleaning cloth.

Improving Transferability

To improve transferability, try the following solution:



Improving Paper Deliverability

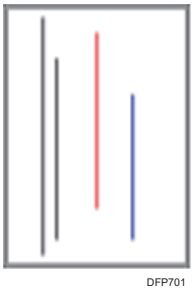
To improve paper deliverability, see page 89 "Troubles Related to Paper Feeding and Delivery".

3. Troubleshooting Image Quality Problems

Image Index

Large Classification: Lines/Streaks

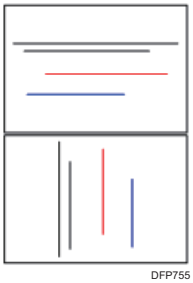
A smudge or a white area inside an image, in a linear shape appears horizontally or vertically.



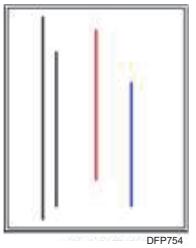
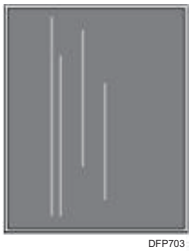
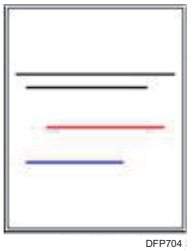
DFP701

Middle classification: Lines/Streaks

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



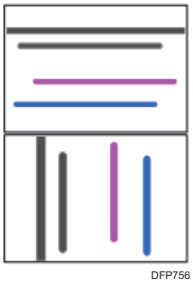
DFP755

Small classification	Sample image	Trouble with the machine
Vertical black (color) streaks Black (color) streaks appearing in the paper feed direction.	 DFP754	• See page 39 "Multiple Black Streaks in the Paper Feed Direction around the Trailing Edge".
Vertical white streaks Image missing in the shape of streaks in the paper feed direction.	 DFP703	• See page 35 "Vertical White Streaks at the Sides of Paper When Feeding Large Width Paper after Small Width Paper". • See page 36 "White Streaks in the Paper Feed Direction on a Pure Black Halftone Image Printed on the 2nd Side of a Duplexed Page". • See page 37 "White Streaks on Paper Edges".
Horizontal black (color) streaks Black (color) streaks appearing in the direction perpendicular to the paper feed direction.	 DFP704	• See page 43 "Horizontal Streaks on Thick Paper". • See page 46 "Horizontal Streak on Synthetic Paper".
Horizontal white streaks Image missing in the shape of streaks in the direction perpendicular to the paper feed direction.	 DFP705	• See page 41 "Horizontal White Streaks in the Area 21 mm (0.8 inches) from the Trailing Edge". • See page 42 "Horizontal White Streaks".

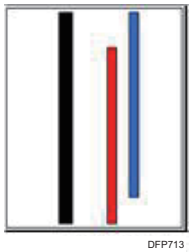
Small classification	Sample image	Trouble with the machine
Vertical glossy streaks Glossy streaks appearing in the paper feed direction. (Not a stain)	 DFP706	-
Horizontal glossy streaks Glossy streaks appearing in the direction perpendicular to the paper feed direction. (Not a stain)	 DFP707	• See page 45 "Horizontal Glossy Streaks in Solid Areas". • See page 48 "Horizontal Glossy Black Streaks".
Image scratches Stains in the shape of vertical streaks which seem to result from being scratched by the guide plate ribs or other parts.	 DFP708	-

Middle classification: Bands

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

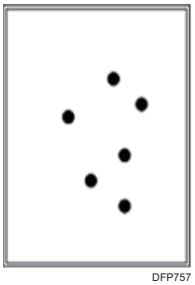

DFP756

Small classification	Sample image	Description
Jitter Blurred area visible as bands in the direction perpendicular to the paper feed direction.	 DFP709	-
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.)	 DFP710	-
Vertical white bands White bands appearing in the paper feed direction.	 DFP711	-
Horizontal white bands White bands appearing in the direction perpendicular to the paper feed direction.	 DFP712	-

Small classification	Sample image	Description
Vertical black (color) bands Black (color) bands appearing in the paper feed direction.	 DFP713	-
Horizontal black (color) bands Black (color) bands appearing in the direction perpendicular to the paper feed direction.	 DFP714	-
Fuzzy lines Blurred images in the shape of slightly winding bands in the paper feed direction.	 DFP715	-
Roller tracks Stains on the transport rollers transferred to paper.	 DFP716	• See page 84 "Roller Stain White Spots".

Large classification: Spots

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

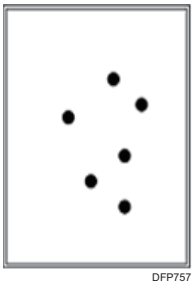


DFP757

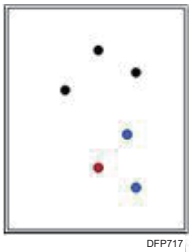
Middle classification: Spot

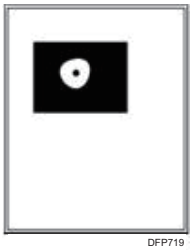
White spots seen in solid image areas or black/color spots seen where there should be nothing printed. The description "white spots" excludes those with toner cores.

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



DFP757

Small classification	Sample image	Description
Black (color) spots Stains are visible as crisp black (color) spots.	 DFP717	• See page 51 "Black (Color) Spots".

Small classification	Sample image	Description
White spots White spots are visible inside solid image or halftone image area because of missing toner.	 DFP718	-
Spots with toner Toner aggregated inside the machine has been transferred to paper.	 DFP702	• See page 51 "Black (Color) Spots".
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.	 DFP719	-
Fish-shape stains Stains in the shape of small fish which appear to be swimming in the paper feed direction.	 DFP720	-

Large classification: Full page

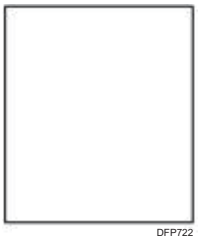
Images and text missing from the whole sheet.

DFP758

Middle classification: Full page

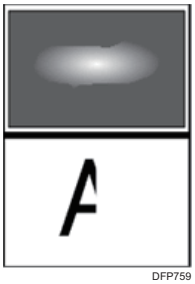
Image/text does not appear on the printout.

DFP721

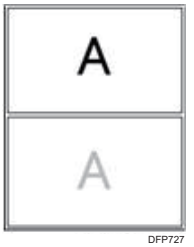
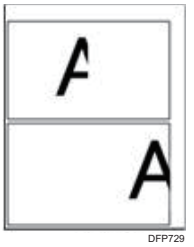
Small classification	Sample image	Description
All black Printed paper is all black.	 DFP721	-
Blank No image is reproduced.	 DFP722	-

Middle classification: Unprinted

Parts of the developed images and letters are not reproduced.


DFP759

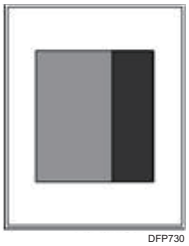
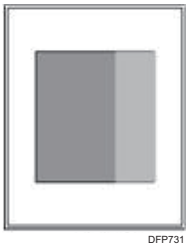
Small classification	Sample image	Description
White zone Part of a solid image or halftone is missing.	 DFP723	• See page 55 "Image quality degradation within 30 mm from the leading or trailing edge of the paper (Excessive or Insufficient Density / Horizontal Streaks / White Spots /Stains / Toner Scattering / Faint)". • See page 63 "White Spots (Half-tone Parts at Intervals of 310 mm)".
Wormholes The outline of a letter (or a line) is reproduced but the inside of it is missing.	 DFP724	-
Halo There is a white line around a solid object.	 DFP725	-

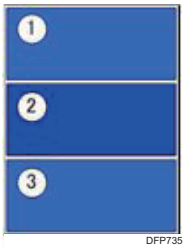
Small classification	Sample image	Description
Negative residual image Previously printed image is reproduced with its black and white reversed on the same page or the next page.	 DFP726	-
Positive residual image Previously printed image is reproduced on the same page or the next page.	 DFP727	-
Offset The same image is repeatedly transferred in the same interval.	 DFP728	-
Missing image Developed image slid in the subscan direction or missing.	 DFP729	-

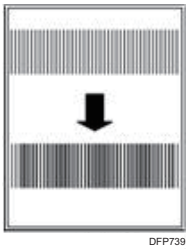
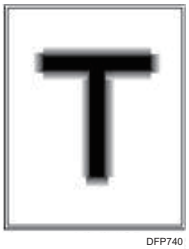
Middle classification: Unevenness

The density of the developed image is uneven.

DFP760

Small classification	Sample image	Description
High density Image density higher than configured.	 DFP730	-
Low density Image density lower than configured.	 DFP731	• See page 71 "Low Density of Black".
Uneven density Image density is uneven within the same page.	 DFP732	• See page 73 "Uneven Density within 127 mm (5 inches) from the Trailing Edge".

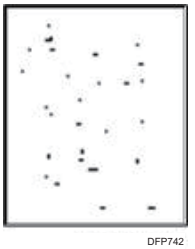
Small classification	Sample image	Description
Unevenness in indefinite shape Image density unevenness in indefinite shapes.	 DFP733	• See page 80 "Uneven Gloss on Paper with Thickness of 0 in a Low Temperature and Humidity Environment". • See page 83 "Uneven Gloss around the Edge of Paper".
Uneven glossiness The glossiness is uneven inside a dark solid image. Check it by looking at the paper from different angles.	 DFP734	• See page 74 "Uneven Gloss". • See page 80 "Uneven Gloss on Paper with Thickness of 0 in a Low Temperature and Humidity Environment". • See page 83 "Uneven Gloss around the Edge of Paper".
Color changing During repeated printing, the color or the density changes from sheet to sheet.	 DFP735	-
Color difference The colors differ between the original (1) and the output (2).	 DFP736	-

Small classification	Sample image	Description
Rough image Color is uneven and small white spots are visible inside a solid image. **Note** • With color copiers, white spots may not appear when two colors are overlapped.	 DFP737	• See page 76 "Mottling". • See page 77 "Mottling (Insufficient Toner Transferability of Halftone Black)".
Earthworm shape White area in a shape similar to an earthworm.	 DFP738	• See page 81 "River Mark".
Moire When superimposed regular pattern, it is a pattern of striped periodic possible by pixel to interfere with each other. Halftones may become mosaics.	 DFP739	-
Blur Image seemingly blurred in all directions.	 DFP740	-

Middle classification: Dirtied printouts

Non-image area is dirtied.

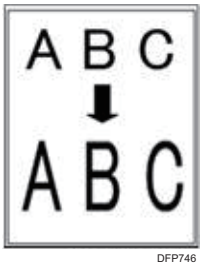
DFP743

Small classification	Sample image	Description
Background stains Granular stains are visible in unprinted areas of the paper.	 DFP741	• See page 87 "Background Stains".
Backside stains Granular stains are visible on the backside of the paper.	 DFP742	-
Toner scattered Toner scattered around a letter.	 DFP743	-

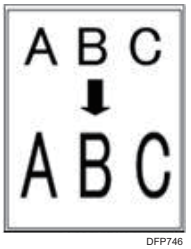
Small classification	Sample image	Description
Edge stains When paper is stacked and aligned, a side edge of the paper is stained.	 DFP744	-

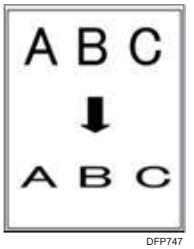
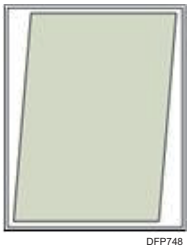
Middle classification: Disturbed image

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



DFP746

Small classification	Sample image	Description
Irregularity Image becoming irregular in comparison with the original.	 DFP745	-
Image expansion Image expanded abnormally in comparison with the original.	 DFP746	-

Small classification	Sample image	Description
Image contraction Image contracted abnormally in comparison with the original.	 DFP747	-
Skew The corners of an image copied from a rectangle original are not square.	 DFP748	-

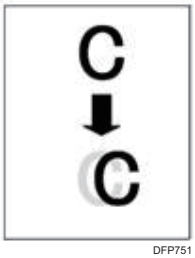
Middle classification: Scratches

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

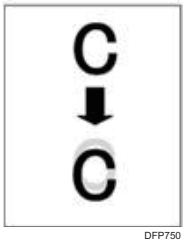
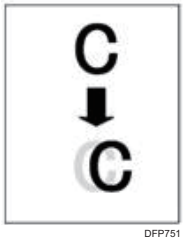
Small classification	Sample image	Description
Claw marks Stains of toner that got on the paper when it came into contact with drum/ fuser pawls.	 DFP749	-

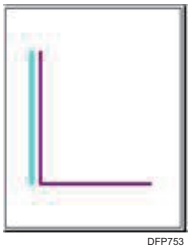
Middle classification: Shifted image

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



DFP751

Small classification	Sample image	Description
Vertical image shift Images and lines shifted in the paper feed direction.	 DFP750	-
Horizontal image shift Images and lines shifted in the direction perpendicular to the paper feed direction.	 DFP751	-
Vertical color shift Color shifted in the paper feed direction where colors should be overlaid.	 DFP752	-

Small classification	Sample image	Description
Horizontal color shift Color shifted in the direction perpendicular to the paper feed direction where colors should be overlaid.	 DFP753	-

Others

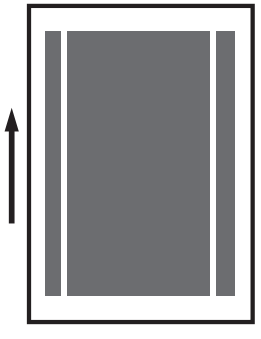
- For details see, page 88 "Reduced Color Gamut".

4. Image Quality Problem: Lines/ Streaks

Vertical (In-track) Streaks

Vertical White Streaks at the Sides of Paper When Feeding Large Width Paper after Small Width Paper

Vertical white streaks appear at the sides of the paper (outside the width of the small width paper). It is more distinguishable on a halftone image.



M0EDIC1323

Standards for judgment:

- The white streaks appear after performing continuous printing of more than 500 sheets.
- The width of the inner high density area matches the width of the small width paper.

Occurrence conditions:

The above problems are likely to occur when the intermediate transfer belt is new.

Cause:

When performing continuous printing on small width paper, lubricant is removed from the area of the intermediate transfer belt where the paper passes. The amount of lubricant on the area of the belt where the paper passes differs from the amount outside this area. Therefore, when feeding large width paper after feeding small width paper, image density differs between the inside and outside of this area.

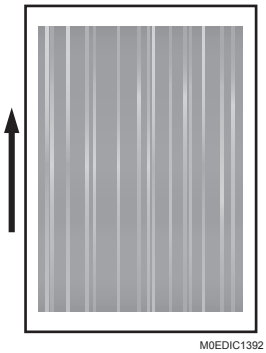
Solution:

1. **In the 02: [Machine: Image Quality] group on the [Operator Adjust.] menu, select 0201: [Execute Image Quality Adjustment] and execute [Adjust Image Density].**
2. **Print the image. Has the density difference reduced?**

Yes	Finished!
No	Repeat Step 1 to 2.

White Streaks in the Paper Feed Direction on a Pure Black Halftone Image Printed on the 2nd Side of a Duplexed Page

White streaks in the paper feed direction on a pure black halftone image printed on the 2nd side of a duplexed page.



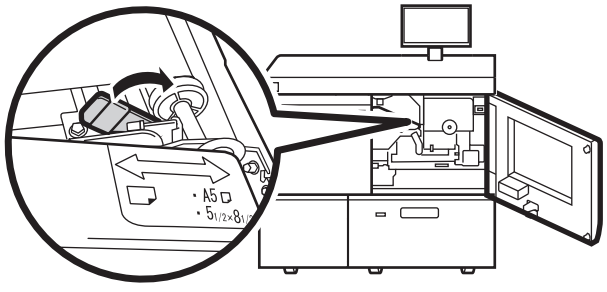
M0EDIC1392

Cause:

Uneven temperature on the media surface due to uneven contact between the media and cooling belts, which affects the image transfer.

Solution:

1. **Open the right front cover of the left unit, and then lower the lever for A5/Half Letter to the right.**



M0EDIC1317

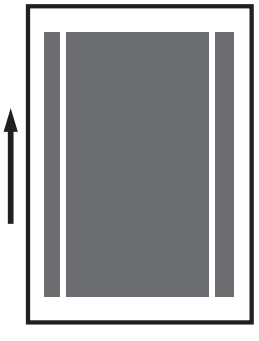
The unnecessary gap between the paper and cooling belt is removed and the entrance roller applies high downward pressure to the paper via the cooling belt.

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

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

White Streaks on Paper Edges

When the same size sheets of paper are fed, a white streak occurs on the paper.



M0EDIC1323

Cause:

The surface of the intermediate transfer belt is lubricated to prevent paper from being stuck. Paper dust / lubricant / toner accumulate gradually on the belt surface after feeding sheets of paper. Paper edges

break the surface of the accumulated objects, and the transfer quality of the broken part becomes lower than the other parts. The white streak occurs because of the quality difference of the different parts of the belt.

Occurrence conditions:

- Tends to occur on coated paper.
- The problem mostly occurs in halftone images. When the gradation of a halftone image is low (10 to 30 %), it appears clearly. It occurs in FC images including a halftone area of single black more clearly.
- When 5K or more sheets of paper is fed in one job, a white streak can gradually appear.

Solution:

1. **Print in black full-page solid-fill and half-tone images.**
2. **Do white streaks only appear on full-page solid-fill images and not on halftone images?**

Yes	The problem is likely to be a problem other than the problem described here. See other troubleshooting articles.
No	Go to the next step.

3. **Is it possible to change screen line settings in print settings?**

Yes	On Command WorkStation, change the Image halftone mode and Graphics halftone mode in Halftone mode from 200 dot (default) to 175 dot or 175 line.
No	Proceed to Step 5.

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

Yes	Finished!
No	Go to the next step.

5. **In [Detailed settings] for custom paper, decrease the value in 1214: [Paper Transfer Output].**
6. **Print the images. Has the problem been resolved?**

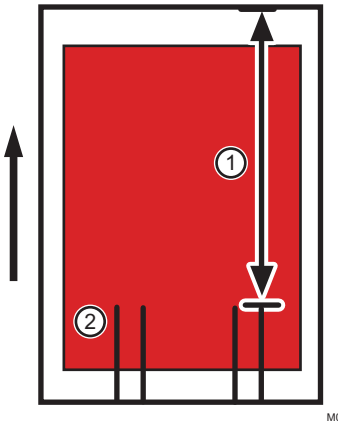
Yes	Finished!
No	If the problem still persists, contact your service representative.

Note

- The adjustment may cause grainy images in high coverage images and color variation in areas that require more than two colors. Check that the change is acceptable while adjusting.

Multiple Black Streaks in the Paper Feed Direction around the Trailing Edge

Multiple black streaks in the paper feed direction around the trailing edge.



M0EDIC1324

1. **308 mm (12.1 inches) from leading edge**
2. **Streaks**

Noticeable points about the symptom:

- Occurs in low temperature / low humidity environments.
- Likely to occur with solid images containing two colors. For example, red and green.
- The streaks appear in both image and non-image areas.
- The drag-mark-like streaks are often in black, but may also be in cyan.
- The streaks appear approximately 310 mm (12.2 inches) from the leading edge.

Cause:

1. Toner transferred to the intermediate transfer belt from the drums upstream (yellow/magenta) reverse transfers and adheres to the drums downstream (cyan/black).
2. The cleaning units remove the toner adhered to the drums downstream (cyan/black), causing a counter charge on these drums.
3. Counter charged drums (cyan/black) attract lubricant and the image is developed on the drums covered with streaks of lubricant.

Solution:

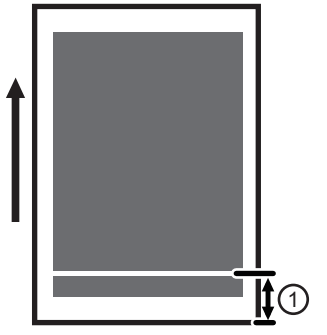
1. **In the 05: [Machine: Maintenance] group on the [Operator Adjust.] menu, execute 0507: [Execute Photoconductor Refreshing].**
2. **Print the image. Has the problem been resolved?**

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

Horizontal (Cross-track) Streaks

Horizontal White Streaks in the Area 21 mm (0.8 inches) from the Trailing Edge

When using thick paper, white streaks appear in the area 20 to 22 mm (0.8 to 0.9 inches) from the trailing edge of the paper.



1. **21 mm (0.8 inches)**

Occurrence conditions:

Printing on thick paper or coated paper.

Cause:

The machine transfers toner from the intermediate transfer belt to the paper by providing an electrical transfer field between the paper transfer bias roller and the paper transfer roller. There is a paper transfer entrance plate just before the transfer bias roller for adhering the intermediate transfer belt to the paper.

When the trailing edge reaches the paper transfer entrance plate, toner on the intermediate transfer belt scatters. Then the horizontal white streaks occur.

Solution:

1. **In [Detailed settings] for the custom paper, check the present value in 1229: [Paper Transfer Pressure Mode]. Is it set to [Higher Pressure Mode]?**

Yes	No further improvement is likely.

No	Set 1229: [Paper Transfer Pressure Mode] to [Higher Pressure Mode].

2. **Is the shock jitter within the acceptable range? Has the problem been resolved?**

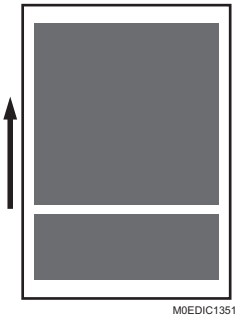
Yes	Finished!
No	The problem is likely to be a problem other than the problem described here. Carry out the procedure in page 43 "Horizontal Streaks on Thick Paper".

Note

- Changing the value in 1229: [Paper Transfer Pressure Mode] may produce either or both of the following side effects:
  - Increase in toner consumption
  - Occurrence of banding (streaks)
  - White spots

Horizontal White Streaks

Horizontal white streaks appear on the second and later sheets when printing on coated paper with a thickness of 4 or above.



M0EDIC1351

Occurrence conditions:

- Coated paper with a thickness of 4 or above
- Second and later pages

Cause:

The surface of coated paper is scraped off by the fusing belt in the fusing nip and adheres to the next page.

Solution:

Procedure 1: Polish the fusing belt manually

1. **In the 05: [Machine: Maintenance] group on the [Operator Adjust.] menu, select 0511: [Smooth Fusing Belt] and execute [Belt Scratches].**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Step 1 to 2.

Procedure 2: Decrease the nip width

1. **In [Detailed settings] for the custom paper, select 1246: [Fusing Nip Width Adjustment], and then set [Other than Envelope] to "2".**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Set [Other than Envelope] to "1".

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

Yes	Finished!
No	Cannot be solved by this flow.

Horizontal Streaks on Thick Paper

Horizontal streaks (shock-jitter) appear on thick paper. It does not appear on the first sheet of the print. The area where horizontal streaks appear differs depending on the color and length of the paper.

- When using A3 paper, horizontal streaks appear at the following position from the leading edge.

  Y: At about 244 mm (9.6 inches) from the leading edge

  M: Horizontal streaks do not appear.

  C: At about 191 mm (7.5 inches) from the leading edge

  K: At about 414 mm (16.3 inches) from the leading edge
- When using SRA3 paper, horizontal streaks appear at following position from the leading edge.

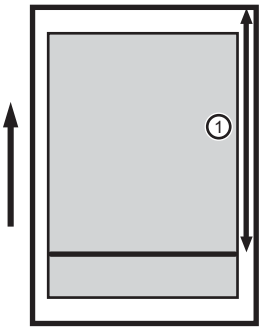
  Y: At about 150 mm (5.9 inches) from the leading edge

  M: At about 404 mm (15.9 inches) from the leading edge

  C: At about 129 mm (5.1 inches) from the leading edge

K: At about 383 mm (15.1 inches) from the leading edge

For example, when printing black color with SRA3 paper, horizontal streaks appear as shown below.



1. **About 361 mm (14.2 inches)**

Cause:

The jitter that occurs when paper is fed through the paper transfer roller has caused image disturbances in the image transfer unit.

Solution:

1. **In [Detailed settings] for custom paper, select 1331: [Motor Speed] and change the values for [Transfer Timing Roller] and [Paper Transfer Belt] according to the following table.**

No.	Setting items	Setting 1	Setting 2	Setting 3	Setting 4	Setting 5	Setting 6
1331-01	Transfer Timing Roller	-0.05%	-0.05%	-0.10%	-0.10%	-0.15%	-0.15%
1331-02	Paper Transfer Belt	-0.05%	-0.10%	-0.15%	-0.20%	-0.25%	-0.30%

No.	Setting items	Setting 7	Setting 8	Setting 9	Setting 10	Setting 11	Setting 12
1331-01	Transfer Timing Roller	-0.20%	-0.20%	-0.25%	-0.25%	-0.30%	-0.30%
1331-02	Paper Transfer Belt	-0.35%	-0.40%	-0.45%	-0.50%	-0.55%	-0.60%

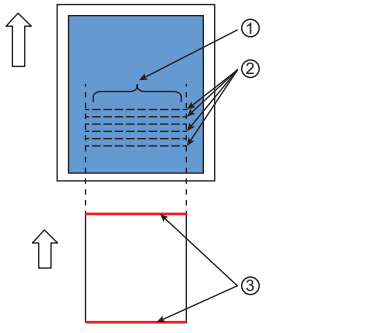
Make the indicated adjustment from the initial factory setting. (Ex. For Setting 1, if the initial factory setting is 0.50%, adjust it to 0.50%-0.05%=0.45%.)

In [Detailed settings] for custom paper, print and check the results in ascending order starting with "Setting 1", and apply the setting that keeps the shock jitter within the acceptable range.

Using the machine continuously with the value for 1331-02: [Paper Transfer Belt] decreased to "-0.30%" or below increases the risk of streaks appearing at the edge of paper due to intermediate transfer belt trouble.

2. **Make changes so that the paper fed in the grain direction will be fed in the cross-grain direction.**
3. **If the printing was performed in black and white, print in color.**
4. **If the problem persists after performing Steps 1 to 3, in [Detailed settings] for custom paper, adjust 07: [Paper Feed Interval] in 1331: [Motor Speed] in order to move the position affected with the shock jitter to the interval between sheets.**

Horizontal Glossy Streaks in Solid Areas



1. **The width of the glossy streaks corresponds to the width of the leading/trailing edges.**
2. **Glossy streaks appear perpendicular to the paper feed direction.**
3. **Burrs on the leading/trailing edges of the paper cause scratches on the fusing belt.**

The arrows in the diagram show the paper feed direction.

Cause:

Due to the roughness at the leading/trailing edge of the paper, the surface of the fusing belt may become rough in the circumferential direction.

If this happens, the rough part of the fusing belt may cause glossy horizontal banding on solid-fill images.

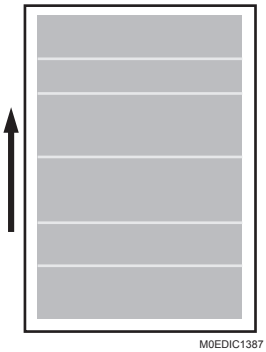
Solution:

1. **In the 05: [Machine: Maintenance] group on the [Operator Adjust.] menu, select 0511: [Smooth Fusing Belt] and execute [Belt Scratches] and [Uneven Gloss (Short Time)].**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Step 1 to 2.

Horizontal Streak on Synthetic Paper

Synthetic (waterproof) paper tends to be charged and have a streak in low coverage images.



M0EDIC1387

Cause:

Synthetic (waterproof) paper tends to be charged, which makes the paper repel toner and causes a streak in low coverage images.

Occurrence conditions:

- Synthetic / waterproof paper
- Mostly in halftone images
- Depending on the state of paper charge, the problem may not repeat in the same conditions.

Solution:

1. **In [Detailed settings] for custom paper, select 1214: [Paper Transfer Output] and check if the values for [Side 1: AC] and [Side 2: AC] are set to the minimum values according to the present setting.**

Yes	Proceed to Step 3.
No	Go to the next step.

2. **Decrease the value by 2 notches and print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Step 1 to 2. If set at the minimum value, go to the next step.

3. **In [Detailed settings] for custom paper, select 1214: [Paper Transfer Output] and check if the values for [Side 1] and [Side 2] are set to the minimum values according to the present setting.**

Yes	If the quality has improved, you may finish. If not, go to Step 5.
No	Go to the next step.

4. **Decrease the value by 2 notches and print the image. Is the fluctuation of the fusibility (tone) in the areas with multiple overlapping colors within the acceptable range?**

Yes	Finished!
No	Repeat Step 3 to 4. If set at the minimum value, go to the next step.

5. **Restore the values you have changed to their previous settings.**
6. **In [Detailed settings] for custom paper, select 1214: [Paper Transfer Output] and check if the values for [Side 1] and [Side 2] are set to the maximum values according to the present setting.**

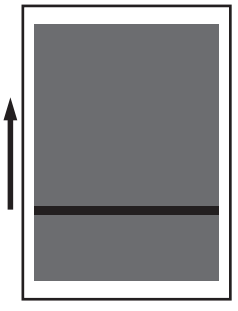
Yes	Finished!
No	Go to the next step.

7. **Increase the value by 2 notches and print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Step 6 to 7. If set at the maximum value, further improvement cannot be expected.

Horizontal Glossy Black Streaks

Horizontal glossy black streaks appear on the second and later sheets when printing continuously on paper with a thickness of 5 or above.



M0EDIC1335

- The affected area matches that of the trailing edge of the previous sheet.
- Glossy black streaks appear due to the toner melting there more than in other parts.
- Horizontal black streaks become wider for thicker paper.

Cause:

In the fusing nip, the fusing belt temperature for the area, which does not come into contact with either the leading/trailing edge of thick paper nor the pressure roller, becomes relatively high (insulated by air), and the temperature remains even after the heat roller passes, resulting in fusing rate fluctuation = horizontal glossy black streaks on the next sheet.

Solution:

1. **In [Detailed settings] for custom paper, select 1241: [Fusing Temperature] and decrease the value for [Heat Roller Temp] by 5°C.**
2. **Print on one side on 5 sheets of paper. Has the problem been resolved?**

Yes	Finished!
No	Decrease the value by 5 degrees in [Heat Roller Temp].

3. **Print on one side on 5 sheets of paper. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

4. **In [Detailed settings] for the custom paper, set [Process Speed Setting] in 1331: [Motor Speed] to [Low Speed].**
5. **Print on one side on 5 sheets of paper. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

6. **In [Detailed settings] for custom paper, select 1241: [Fusing Temperature] and decrease the value for [Heat Roller Temp] by 5°C.**
7. **Print on one side on 5 sheets of paper. Has the problem been resolved?**

Yes	Finished!
No	Decrease the value by 5 degrees in [Heat Roller Temp].

8. **Restore the setting for [Fusing Temperature] in [Heat Roller Temp] to the one in Step 3.**
9. **In [Detailed settings] for custom paper, select 1331: [Motor Speed], and then set [Paper Feed Interval] to 50%.**
10. **Print on one side on 5 sheets of paper. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

11. **In [Detailed settings] for custom paper, select 1331: [Motor Speed], and then decrease the value in [Paper Feed Interval] in steps of 10%.**

    Since there is a trade-off between this adjustment and throughput, you can decrease the value only within the acceptable range.
12. **Print on one side on 5 sheets of paper. Has the problem been resolved?**

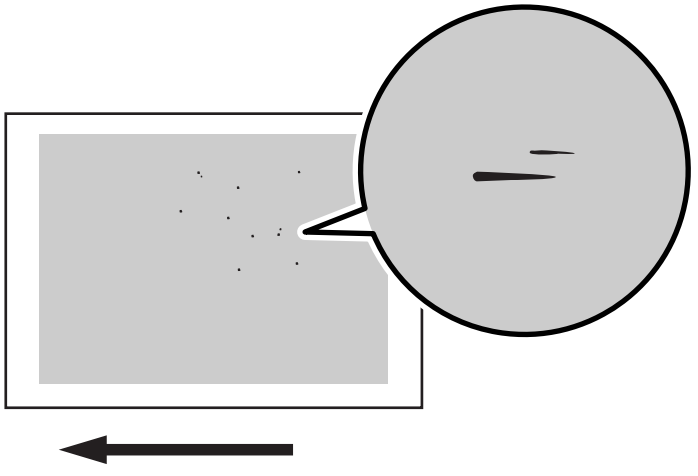
Yes	Finished!
No	Cannot be solved by this flow.

5. Image Quality Problem: Spots

Spots

Black (Color) Spots

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



CEZ538

Cause:

Toner clumps adhered to the pressure roller are not picked up by the cleaning web and offset to the printed paper.

The amount of toner that the cleaning web fails to pick up differs depending on the image data, paper feed mode, and paper type so the symptoms also differ.

Occurrence conditions:

Image pattern: Isolated dot halftone image

Paper Type: Uncoated (especially rough surfaced) paper

Paper feed mode: Duplex mode

Solution:

1. **In [Detailed settings] for custom paper, select 1241: [Fusing Temperature] and set the value for [Heat Roller Temp] 5°C higher than the initial factory setting.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Increase the temperature an additional 5 degrees in [Heat Roller Temp].

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

Yes	Finished!
No	Go to the next step.

4. **In [Detailed settings] for custom paper, set [Cleaning Interval] in 1243: [Fusing Cleaning] to [Most Frequently].**
5. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

6. **In [Detailed settings] for custom paper, set 1242: [Fusing Pressure Roller On Before Fusing] to [On].**
7. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

8. **In [Detailed settings] for custom paper, select 1241: [Fusing Temperature] and then set the value for [Pressure Roller Temp] to 130°C.**
9. **Print the image. Has the problem been resolved?**

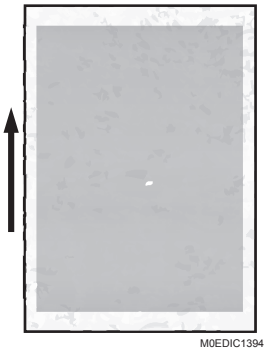
Yes	Finished!
No	If the problem still persists, contact your service representative.

Note

- Increasing the value in [Cleaning Interval] of 1243: [Fusing Cleaning] will shorten the replacement cycle of the cleaning web.

Color Spots Appeared On Uneven Paper

Color spots appear on rugged surfaces when using uneven paper.



M0EDIC1394

Cause:

- The air in the indentations was compressed and flowed to the upstream side of the paper feed direction when the intermediate transfer belt contacts the indentations of unven paper. Then the toner on the upstream side of the paper feed direction is pushed to the downstream side by the compressed air. When the force which pushes the toner is larger than the electrostatic sticking force of the toner, the toner is flipped, and color spots appear.
- This may occur when textured paper is used in an environment with high temperature and humidity.

Solution:

First, perform "(a) Adjust the value of [Paper Transfer Output]", and then, according to the result, perform "(b) Check the density of colors other than black" or "(c) Check the density of black".

In the case of white spots in monochrome black, start from "(c) Check the density of black" in the flowchart.

(a) Adjust the value of [Paper Transfer Output]

1. **In [Detailed settings] for custom paper, select 1214: [Paper Transfer Output], and then adjust the cursors in [Side 1] and [Side 2] in [FC] to [+] in steps of 2 from the present value.**
2. **Print an image. Has the problem been resolved?**

Yes	Proceed to "(c) Check the density of black".
No	Proceed to "(b) Check the density of colors other than black".

(b) Check the density of colors other than black

1. **Is the density of a color other than black too faint?**

Yes	Go to the next step.
No	Repeat the procedure from "(a) Adjust the value of [Paper Transfer Output]".

2. **In [Detailed settings] for custom paper, select 1214: [Paper Transfer Output], and then adjust the cursors in [Side 1] and [Side 2] in [FC] to [−] in steps of 2 from the present value.**
3. **In [Detailed settings] for custom paper, select 1229: [Paper Transfer Pressure Mode], and then decrease the value by 1 level.**
4. **Print an image. Have the color dots been eliminated?**

Yes	Proceed to "(c) Check the density of black".
No	If a value other than "Standard Mode" is specified for [Paper Transfer Pressure Mode], repeat this procedure from Step 3. If "Standard Mode" is specified for [Paper Transfer Pressure Mode], proceed to "(c) Check the density of black".

If you are concerned about the transferability on uneven surfaces, contact your service representative.

(c) Check the density of black

1. **Is the density of black too low?**

Yes	Go to the next step.
No	Finished!

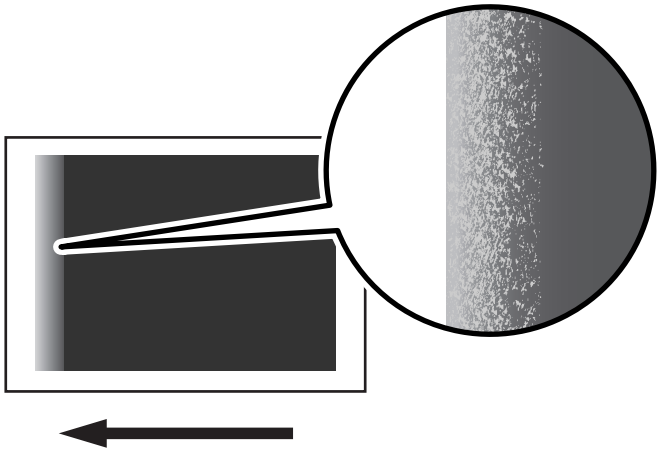
2. **In [Detailed settings] for custom paper, select 1201: [Max Image Density], and then adjust the cursor in [Black] to [+] in steps of 1.**
3. **Print an image. Is the density of black still too low?**

Yes	Repeat Steps 2 and 3.
No	Finished!

6. Image Quality Problem: Full Page

Common Problems

Image quality degradation within 30 mm from the leading or trailing edge of the paper (Excessive or Insufficient Density / Horizontal Streaks / White Spots /Stains / Toner Scattering / Faint)



CEZ562

Cause:

Inadequate transfer current setting.

Solution:

Leading edge of the paper

1. In [Detailed settings] for custom paper, in 1217: [Paper Transfer Output Correction: Paper Edge], adjust the length of the area to apply correction at the leading edge of paper in 02: [Leading Edge Length] and 07: [Leading Edge Length] according to the range of image quality degradation.

2. **In [Detailed settings] for custom paper, in 1217: [Paper Transfer Output Correction: Paper Edge], adjust the effective setting among 01: [Leading Edge] and 06: [Leading Edge] within the range of +2 to -2 notches.**

   Note

   - If the density fluctuation exceeds the acceptable range, unless it is accompanied with image quality degradation, adjust the value within the acceptable range.

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

Yes	Go to the next step.
No	Repeat Step 2 to 3.

4. **In [Detailed settings] for custom paper, select 1215: [Image Transfer Output Correction] and adjust the length of the area to apply correction at the leading edge of the paper for the indicated color (KCMY) in 02: [Leading Edge Length: Black] or 04: [Leading Edge Length: Color] according to the range of image quality degradation.**
5. **In [Detailed settings] for custom paper, in 1215: [Image Transfer Output Correction], adjust the values in 01: [Leading Edge: Black] and 03: [Leading Edge: Color] by +1 each.**

   Note

   - The toner yield may be affected due to excessive reverse transfer.

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

Yes	Finished!
No	Repeat Step 5 to 6.

7. **Clean off the toner stains on the paper guide.**

   "128 Paper Transfer Unit: Paper Path", Regular Maintenance Guide

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

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

Note

- By adjusting the margin at the leading edge or shifting the image, you can reduce the problem.

Trailing edge

Check from Step 8 for stains other than banding or streaks. Otherwise, check from Step 1.

1. **In [Detailed settings] for custom paper, select 1217: [Paper Transfer Output Correction: Paper Edge] and adjust the length of the area to apply correction at the trailing edge of the paper in 05: [Trailing Edge Length] and 10: [Trailing Edge Length] according to the range of image quality degradation.**
2. **In [Detailed settings] for custom paper, in 1217: [Paper Transfer Output Correction: Paper Edge], adjust the effective setting among 04: [Trailing Edge: AC] and 09: [Trailing Edge: AC] within the range of +2 to -2 notches.**

   Note

   - If the density fluctuation exceeds the acceptable range, unless it is accompanied with image quality degradation, adjust the value within the acceptable range.
3. **Print the image. Has the problem been resolved?**

Yes	Go to the next step.
No	Repeat Step 2 to 3.

4. **In [Detailed settings] for custom paper, in 1217: [Paper Transfer Output Correction: Paper Edge], adjust the effective setting among 03: [Trailing Edge] and 08: [Trailing Edge] within the range of +2 to -2 notches.**

   Note

   - If the density fluctuation exceeds the acceptable range, unless it is accompanied with image quality degradation, adjust the value within the acceptable range.
5. **Print the image. Has the problem been resolved?**

Yes	Go to the next step.
No	Repeat Step 4 to 5.

6. **In [Detailed settings] for custom paper, in 1212: [Image Transfer Output], adjust the values for 01 to 05 by +1.**

   Note

   - The page yield may be affected due to excessive reverse transfer.
7. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Step 6 to 7.

8. **Clean off the toner stains on the paper guide.**

   "128 Paper Transfer Unit: Paper Path", Regular Maintenance Guide

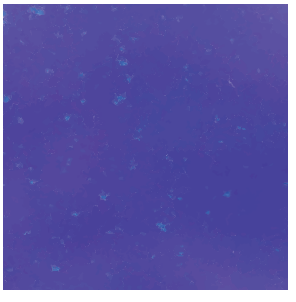
9. Print the image. Has the problem been resolved?

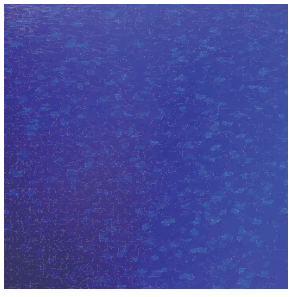
Yes	Finished!
No	If the problem still persists, contact your service representative.

Note

- By adjusting the margin at the leading edge or shifting the image, you can reduce the problem.
- When storing the paper at low temperatures and humidity, store it in wrapping paper with a coated back or a plastic bag.
- In low temperatures and humidity, the paper is prone to become stiff, causing problems at the trailing edge. Increase the temperature and humidity (to roughly 20 °C and 30% or more).
- By adjusting the margin at the leading edge or shifting the image, you can reduce the problem.

Integrated Troubleshooting for Increased Transfer Resistance (Scale-Like White Spots on Startup in Cold Climate / Powdery White Spots / Grain-Like White Spots / Grain-Like)

1. Scale-like white spots on startup in cold climate	2. Powdery white spots
 M0EDIC1330	 M0EDIC1331

3. Grain-like white spots	4. Grain-like
 M0EDIC1332	M0EDIC1333

Cause:

1	**Scale-like white spots on startup in cold climate** The image transfer roller resistance increases when the machine is left idle in cold climates (below 10°C). Due to this, the voltage increases unexpectedly and causes electricity discharge, which results in scale-like white spots.
2	**Powdery white spots** Glossy paper is prone to produce a gap in the paper transfer nip. Under low temperatures and humidity, the resistance in the paper transfer unit increases and causes electricity discharge, resulting in grain-like white spots.
3	**Grain-like white spots** If you leave uncoated thick paper in the paper tray, the paper will become moist due to the air in the machine, causing increased resistance. Due to this, the voltage increases and causes electricity discharge in the nip, resulting in grain-like white spots.
4	**Grain-like** If the image transfer roller resistance is high, the electricity charge for the toner on the image transfer belt becomes uneven due to electricity discharge. Following that, if the resistance in the paper transfer unit is high, excessive transfer occurs in accordance with the electricity charge fluctuation in the image transfer unit, causing white spots.

Occurrence conditions:

common	• Low temperature and humidity environment • Becomes affected if the resistance in each part increases over time.
1	**Scale-like white spots on startup in cold climate** • After left idle in cold climate (below 10°C), such as a wintery morning • The margin varies between different toners. Magenta is most prone.
2	**Powdery white spots** • Glossy paper • Prone to occur on images covering large areas
3	**Grain-like white spots** • Uncoated paper with a paper width of 7 or more • Paper left in the tray for a long time is prone to this.
4	**Grain-like** • Prone to occur on images covering small areas

Solution:

No.1: 1: Scale-like white spots on startup in cold climate, 4: Grain-like

1. **Does the problem occur only with a certain color?**

Yes	Go to the next step.
No	Proceed to No.2.

2. **In [Detailed settings] for custom paper, in 1212: [Image Transfer Output], check if the value for the affected color is set to the minimum.**

Yes	Proceed to No.2.
No	In 1212: [Image Transfer Output], select the applicable color, decrease the value by 2 notches, and print to check the result.

3. **Has the problem of white spots been resolved? Is the fluctuation within the setting where the value has been changed acceptable?**

Yes	Finished!

No	In 1212: [Image Transfer Output], select the applicable color, decrease the value by 1 notches, and print to check the result. Repeat Step 3 if required to the minimum value of -10. If the problem persists, restore the previous setting in [Image Transfer Output], and proceed to No.2.

No.2: 2: Powdery white spots

1. **Does the problem occur only on coated paper?**
2. **In [Detailed settings] for custom paper, check if 1229: [Paper Transfer Pressure Mode] is set to [Highest Pressure Mode].**

Yes	Cannot make further adjustments. Proceed to No.3.
No	In [Detailed settings] for custom paper, select 1229: [Paper Transfer Pressure Mode], and then increase the value by 1 level.

3. **Print the images. Has the problem of white spots been resolved?**

Yes	Finished!
No	Repeat Steps 2 to 3 until reaching [Highest Pressure Mode]. If the problem persists, restore the previous setting in [Paper Transfer Pressure Mode], and proceed to No. 3.

No.3: 2: Powdery white spots, 4: Grain-like

1. **In [Detailed settings] for custom paper, select 1214: [Paper Transfer Output], and check if the values for [Side 1: AC] and [Side 2: AC] are set to the minimum values according to the present setting.**

Yes	Proceed to No.4.
No	Go to the next step.

2. **In [Detailed settings] for custom paper, select 1214: [Paper Transfer Output], select the applicable item, decrease the value by 1 notch and print to check the result.**
3. **Has the problem of white spots been resolved?**

Yes	Finished!
No	Repeat Step 1 to 3.

No.4: 2: Powdery white spots, 4: Grain-like / No.5: 3: Grain-like white spots

1. **In [Detailed settings] for custom paper, select 1214: [Paper Transfer Output], and check if the values for [Side 1] and [Side 2] are set to the minimum values according to the present setting.**

Yes	The DC current for the paper transfer cannot be further adjusted, so adopt a value within the range with acceptable toner transferability on areas where multiple color toners are applied on top of one another. Only in the case of No. 5, go to the step 5.
No	Go to the next step.

2. **In [Detailed settings] for custom paper, in 1214: [Paper Transfer Output], select the applicable item, decrease the value by 1 notch, and print to check the result.**
3. **Is the toner transferability fluctuation on areas where multiple color toners are applied on top of one another within the acceptable range?**

Yes	Go to the next step.
No	The DC current for the paper transfer cannot be further adjusted, so adopt a value within the range with acceptable toner transferability on areas where multiple color toners are applied on top of one another. Only in the case of No. 5, go to the step 5.

4. **Has the problem of white spots been resolved?**

Yes	Finished!
No	Repeat Step 1 to 4.

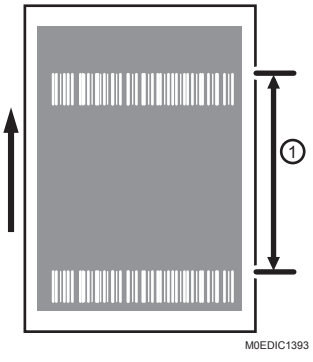
5. **Load the paper in the tray immediately before printing, or store the paper in a low humidity environment.**
6. **Print the images. Has the problem been resolved?**

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

Unprinted

White Spots (Half-tone Parts at Intervals of 310 mm)

When printing an image with half-tone parts, white spots appear at intervals of 310 mm (12.2 inches) in the paper feed direction.



1. **310 mm (12.2 inches)**

Cause:

If the discharged electricity from the charge roller reacts to the lubricant on the drum surface, an electric potential problem may occur, causing white spots. This can be resolved by removing the white-spot-causing particles adhering to the photoconductor surface.

Solution:

1. **In the 05: [Machine: Maintenance] group on the [Operator Adjust.] menu, execute 507: [Execute Photoconductor Refreshing].**
2. **Print the image. Has the problem been resolved?**

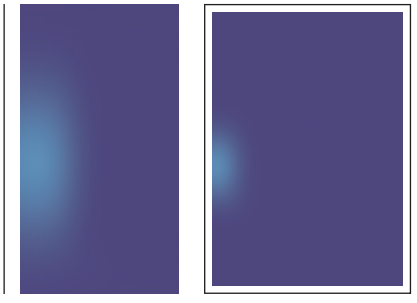
Note

- If the size or extent of white spots is reduced by this, repeat Step 1 several times.

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

Faint Oval Spots at Paper Edges

Oval white spots appear at the positions of the paper feed tray's fans (at the leading, trailing, and side edges of paper).



M0EDIC1334

Cause:

- The part of the paper feed tray exposed to the fan's blown air is dry, causing a difference in the moisture (friction) on the paper surface.
- The lack of paper transfer bias at the dried part of the paper feed tray exposed to the fan's blown air causes paper transfer failure.

Occurrence conditions:

- High coverage solid image
- Low temperature and low humidity operational environment
- Thick paper
- Paper stored in a low humidity environment
- Long lapse of time before printing; moisture content in paper decreases considerably while the fans continue to blow air against the paper

Solution:

Notes on managing Paper

Keeping the paper in a low humidity environment or exposing the paper to the paper feed tray's airflow may cause insufficient print density. This may be reduced by keeping the paper in a non-low-humidity environment.

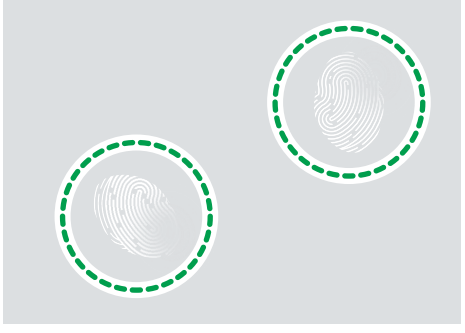
This may be reduced/prevented by storing the paper in a non-low-humidity environment in advance.

Notes on Managing the Temperature and Humidity

When printing in low humidity environments, the problem may be reduced/prevented by avoiding the dropping of the ambient temperature.

White spots caused by fingerprints

Fingerprints stick on paper, which changes the electrical resistance of the paper and the quality of image transfer changes, causing white spots.



M0EDIC1354

Occurrence conditions

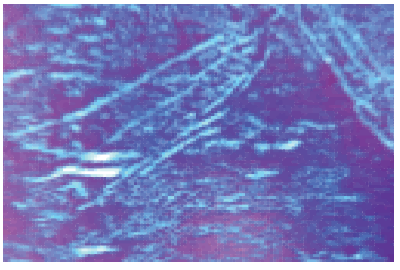
- Black halftone images (the quality of image transfer is easily changed)
- High temperature/humidity environment

Solution:

- Wear gloves.
- After setting paper on the tray, discard the top and the bottom sheets of the paper.
- Do not touch the printed areas when loading the paper.

White Spots on Indentations (Solid-Fill and Half Tone Parts)

White Spots on Indentations:



M0EDIC1327

Excessive Density on Indentations:

M0EDIC1328

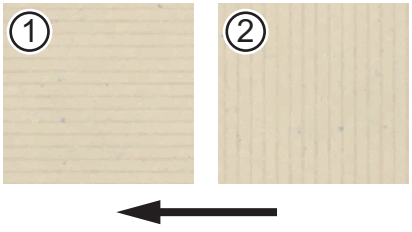
Cause:

- White Spots on Indentations (Solid-Fill)

  Textured paper: Occurs due to lack of paper transfer separation voltage
- White Spots on Indentations (Half Tone)

  Textured paper: Occurs due to excessive paper transfer separation voltage

Indentation: Toner transferability is lower on paper on which indentations are in the sub-scanning direction ([1]) compared to those in the main-scanning direction ([2]).



M0EDIC1329

Solution:

Overall Adjustment Procedure

In [Detailed settings] for custom paper, check the specified value for 1218: [Paper Transfer Output] to [Output Mode].

0:Special Paper

1. **Perform Adjustment Procedure 2.**
2. **Is the paper type "Metallic/Pearl"?**

Yes	Proceed to step 5.
No	Go to the next step.

3. **In [Detailed settings] for custom paper, set 1218: [Output Mode] to 2: [Textured Paper] and perform Adjustment Procedure 1.**
4. **In [Detailed settings] for custom paper, set 1218: [Output Mode] to 1: [Normal] and perform Adjustment Procedure 2.**
5. **With the present system, it is not possible to achieve the best transferability for halftone and solid fill images at the same time.**

   Select the setting considered optimal according to the printed sheets and finish this.

1: Normal

1. **Perform Adjustment Procedure 2.**
2. **In [Detailed settings] for custom paper, set 1218: [Output Mode] to 2: [Textured Paper] and perform Adjustment Procedure 1.**
3. **In [Detailed settings] for custom paper, set 1218: [Output Mode] to 0: [Special Paper] and perform Adjustment Procedure 2.**

4. **With the present system, it is not possible to achieve the best transferability for halftone and solid fill images at the same time.**

   Select the setting considered optimal according to the printed sheets and finish this.

2:Textured Paper

1. **Perform Adjustment Procedure 1.**
2. **Is the paper very textured?**

Yes	In [Detailed settings] for custom paper, set 1218: [Output Mode] to 0: [Special Paper] and perform Adjustment Procedure 2. Then set [Paper Transfer Output] to 1: [Normal] and perform Adjustment Procedure 2.
No	In [Detailed settings] for custom paper, set 1218: [Output Mode] to 1: [Normal] and perform Adjustment Procedure 2. Then set [Paper Transfer Output] to 0: [Special Paper] and perform Adjustment Procedure 2.

3. **With the present system, it is not possible to achieve the best transferability for halftone and solid fill images at the same time.**

   Select the setting considered optimal according to the printed sheets and finish this.

Adjustment Procedure 1

1. **Is the transferability on indentations affected regardless of the image density?**

Yes	Go to the next step.
No	Go to Adjustment Procedure 1-b.

2. **In [Detailed settings] for custom paper, select 1214: [Paper Transfer Output] and check if the values for [Side 1: AC] and [Side 2: AC] are set to the maximum values according to the present setting.**

Yes	Go to Adjustment Procedure 1-a.
No	Go to the next step.

3. **Increase the value by 2 notches and print the image. Do white spots not appear?**

Yes	Finished!
No	Restore the previous setting in step 2 and perform Adjustment Procedure 1-a.

Adjustment Procedure 1-a

1. **In [Detailed settings] for custom paper, check if 1229: [Paper Transfer Pressure Mode] is set to [Highest Pressure Mode].**

Yes	In [Detailed settings] for custom paper, select 1214: [Paper Transfer Output], and change the values for [Side 1] or [Side 2] by ±2 to ±4 notches, and print the image. Return to Overall Adjustment Procedure.
No	In 1229: [Paper Transfer Pressure Mode], increase the value by 1.

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

Yes	Finished!
No	If transfer on indentations is affected regardless of the image density, repeat Steps 1 and 2 until reaching [Highest Pressure Mode]. If the transfer improves, proceed to Adjustment Procedure 1-b.

Adjustment Procedure 1-b

1. **Check if the transferability is affected on halftone or on solid fill images.**

   If the transferability is affected on solid fill images, check if the values for [Side 1] and [Side 2] in 1214: [Paper Transfer Output] are set to the maximum limit.

   If the transferability is affected on halftone images, check if the values for [Side 1] and [Side 2] in 1214: [Paper Transfer Output] are set to the minimum limit.

Yes	Return to Overall Adjustment Procedure.
No	Go to the next step.

2. **If transfer on indentations is affected regardless of the image density, repeat Steps 1 and 2 until reaching [Highest Pressure Mode]. If the transfer improves, proceed to Adjustment Procedure 1-b. Has the problem been resolved?**

Yes	Finished!
No	Repeat Steps 1 and 2 until reaching +10 for improving transferability on solid fill images and -10 for halftone images.

Adjustment Procedure 2

1. **Is the transfer on indentations affected regardless of the image density?**

Yes	Go to the next step.

No	Go to Adjustment Procedure 1-b.

2. **In [Detailed settings] for custom paper, check if 1229: [Paper Transfer Pressure Mode] is set to [Highest Pressure Mode].**

Yes	In [Detailed settings] for custom paper, select 1214: [Paper Transfer Output], and change the values for [Side 1] or [Side 2] by ±2 to ±4 notches, and print the image. Return to Overall Adjustment Procedure.
No	In 1229: [Paper Transfer Pressure Mode], increase the value by 1.

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

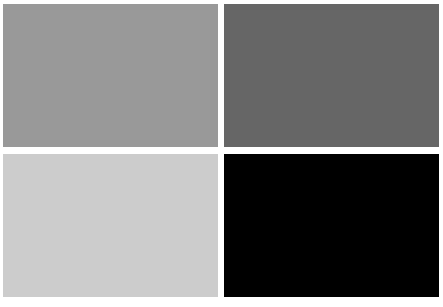
Yes	Finished!
No	Repeat Steps 1 to 3 until reaching [Highest Pressure Mode]

Uneven Density

Low Density of Black

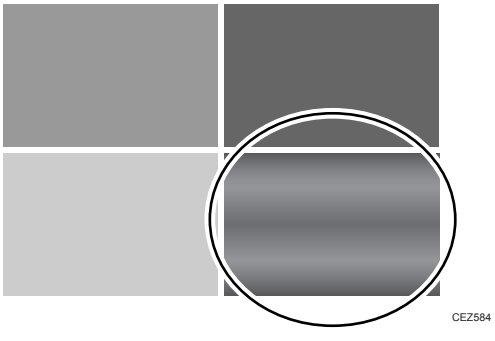
Density of black solid image is lower than normal.

Normal image



CEZ566

Abnormal image



CEZ584

Cause:

- Excessive transfer when printing in full color.
- Mismatch between the calibration and measured ID.
- Insufficient transferability due to mottling.

Solution:

1. **In [Detailed settings] for custom paper, select 1201: [Max Image Density], and then adjust the cursor in [Black] to [+] in steps of 1.**

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

Yes	Finished!
No	Go to the next step.

3. **In [Detailed settings] for custom paper, select 1212: [Image Transfer Output], and then adjust the cursor in [Black] to [+] in steps of 1.**
4. **Print the images. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

5. **In [Detailed settings] for custom paper, select 1214: [Paper Transfer Output], and then adjust the cursor in [Black] to [−] in steps of 1.**
6. **Print the images. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

7. **Perform calibration.**
8. **Print the images. Has the problem been resolved?**

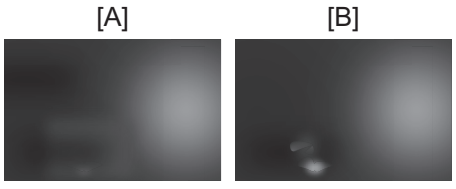
Yes	Finished!
No	Go to the next step.

9. **In the 05: [Machine: Maintenance] group on the [Operator Adjust.] menu, select 0506: [Execute Developer Refreshing]. Execute [Black].**
10. **Print the images. Has the problem been resolved?**

Yes	Finished!
No	Not possible to resolve the problem

Black is Faint in Full Color Printing

Black is fainter than normal during full color printing.



M0EDIC1341

[A]: Image affected

[B]: Image not affected

Mottling occurs at the halftone areas of the gradation chart.

Cause:

With an elastic belt, there are not any gaps between the belt and toner, but there is a gap between the toner and paper. Due to the discharge gap occurring in the air gap between the toner and paper, the toner is charged in reverse, affecting the transferability, and thus causing mottling. This problem may occur on halftone images covering small areas, whereby the toner is prone to be buried in the belt and with black toner that is prone to be charged in reverse.

Occurrence conditions:

- Glossy coated paper, matte coated paper
- Printing black half-tone images
- Printing is done at high temperature or humidity
- Prone to occur due to toner degradation.

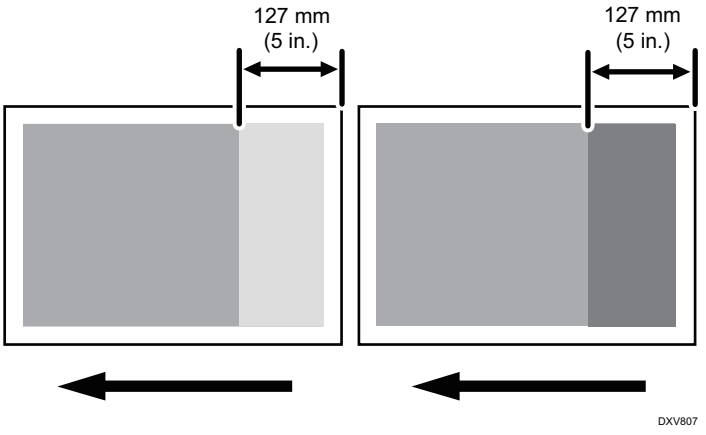
With matte coated paper, mottling may also occur due to uneven matte coating.

Solution:

For details, see page 77 "Mottling (Insufficient Toner Transferability of Halftone Black)".

Uneven Density within 127 mm (5 inches) from the Trailing Edge

Printing in the area extending approximately 127 mm (5 inches) from the trailing edge is fainter or denser.



Cause:

When the paper passes the Transfer Timing Roller, in the pre-nip area before the paper transfer unit, the sticking force and the distance between the intermediate transfer belt and paper differ, which causes density unevenness.

Either change of density or jitter may occur in the position 127 mm (5.0 inches) from the trailing edge.

Occurrence conditions:

- Printing is performed in an environment with low temperature or humidity
- Halftone printing is performed
- Paper thickness: 2 to 5

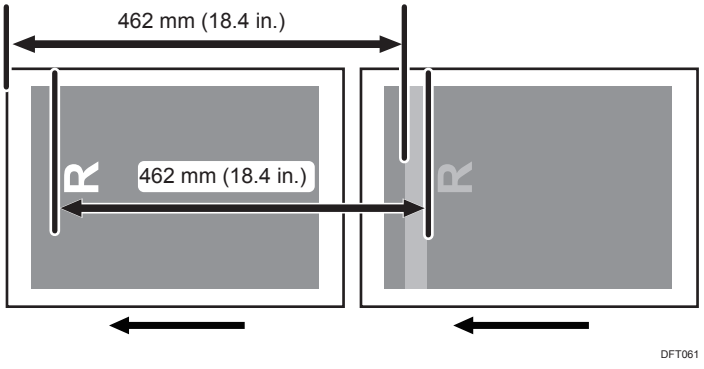
Solution:

1. **In [Detailed settings] for custom paper, select 1331: [Motor Speed] and change the value for [Transfer Timing Roller] within ±0.2%.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Change the value within ±0.2% and apply the appropriate value.

Uneven Gloss

A ghost image of a printed image appears at a distance of 462 mm (18.4 inches) to the side of the image.



Occurrence conditions:

- Printing solid fills
- At the start of the paper transfer

Solution:

1. **In [Detailed settings] for custom paper, select 1241: [Fusing Temperature] and decrease the value for [Heat Roller Temp] by 5°C.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Decrease the value by 5 degrees in [Heat Roller Temp].

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

Yes	Finished!
No	Go to the next step.

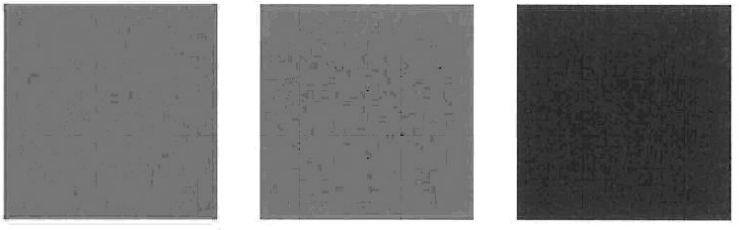
4. **In [Detailed settings] for custom paper, select 1241: [Fusing Temperature] and decrease the value for [Correct Temp: Pre-Feed] by 5°C.**
5. **Print the image. Has the problem been resolved?**

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

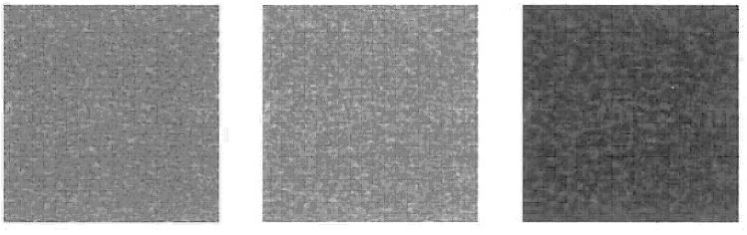
Mottling

Mottling occurs due to the toner fluctuations caused by factors such as paper characteristics and the photoconductor unit's agitation stress.

Normal



Mottled



Cause:

- Using paper with low smoothness or low friction
- Print coverage is low (consecutively printing with low toner density)

Solution:

(a) Adjust the image density.

1. **In [Detailed settings] for custom paper, select 1214: [Paper Transfer Output], and then adjust the cursor to [+] in steps of 1.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Not possible to resolve the problem.

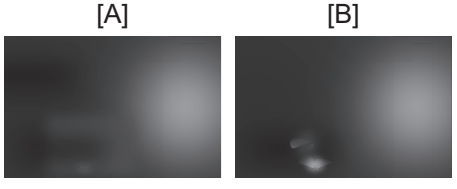
(b) Execute developer refreshing

1. **In the [Machine: Maintenance] group on the [Operator Adjust.] menu, execute 0506: [Execute Developer Refreshing] for the specified color.**
2. **Print the image. Has the problem been resolved?**

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

Mottling (Insufficient Toner Transferability of Halftone Black)

Mottling occurs in half-tone parts of the image.



M0EDIC1341

[A]: Image affected

[B]: Image not affected

Cause:

With an elastic belt, there are not any gaps between the belt and toner, but there is a gap between the toner and paper. Due to the discharge gap occurring in the air gap between the toner and paper, the toner is charged in reverse, affecting the transferability, and thus causing mottling. This problem may occur on halftone images covering small areas, whereby the toner is prone to be buried in the belt and with black toner that is prone to be charged in reverse.

Occurrence conditions:

Glossy coated paper, matte coated paper

- Printing black half-tone images
- Printing is done at high temperature or humidity
- Prone to occur due to toner degradation.

With matte coated paper, mottling may also occur due to uneven matte coating.

Solution:

The solution varies depending on the customer request.

A.	If mottling occurs only at the leading edge of paper	Have the correction coefficient for the leading edge of paper changed?
B.	If mottling occurs throughout the entire image and the color registration is within the acceptable range.	Adjust the paper transfer current. Have the image processing setting changed? Change the screen line number from 200 lines to 175 lines. Adjust the paper transfer line speed.
C.	If mottling occurs throughout the entire image and the color registration exceeds the acceptable range.	Adjust the paper transfer current. Have the image processing setting changed? Change the screen line number from 200 lines to 175 lines.

A. Have the image processing setting changed?

1. **Does mottling occur at the area within 40 mm (1.6 inches) of the leading edge?**

Yes	Go to the next step.
No	Proceed to Step 4.

2. **In [Detailed settings] for custom paper, select 1217: [Paper Transfer Output Correction: Paper Edge] and decrease the value for 06: [Leading Edge] by 2 notches.**
3. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Steps 2 to 3.

4. **In [Detailed settings] for custom paper, select 1214: [Paper Transfer Output] and check if the values for [Side 1] and [Side 2] are set to the minimum values according to the present setting.**

Yes	Go to the B.
No	Go to the next step.

5. **Decrease the value by 2 notches and print the image. Has the problem been resolved?**

Yes	Finished!
No	If the mottling is noticeable, repeat Steps 4 and 5. If horizontal streaks or white spots appear, or if the fluctuation in the transferability of the overlapped area of two or more colors is noticeable, go to the next step.

6. **In [Detailed settings] for custom paper, select 1214: [Paper Transfer Output] and check if the values for [Side 1: AC] and [Side 2: AC] are set to the minimum values according to the present setting.**

Yes	Go to Step B.
No	Repeat Step 5 to 6.

B. If mottling occurs throughout the entire image and the color registration is within the acceptable range.

1. **In [Detailed settings] for custom paper, select 1214: [Paper Transfer Output] and check if the values for [Side 1: AC] and [Side 2: AC] are set to the maximum values according to the present setting.**

Yes	Proceed to Step 3.
No	Go to the next step.

2. **Increase the value by 2 notches and print the image. Has the problem been resolved?**

Yes	Finished!
No	If the mottling is noticeable, repeat Steps 1 and 2. If horizontal streaks or white spots appear, or if the fluctuation in the transferability of the overlapped area of two or more colors is noticeable, go to the next step.

3. **Change the Screen Line setting from "200" to "175".**
4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

5. **In [Detailed settings] for custom paper, select 1331: [Motor Speed], and then adjust the cursor in [Paper Transfer Belt] and [Transfer Timing Roller] to [+] from the present value.**

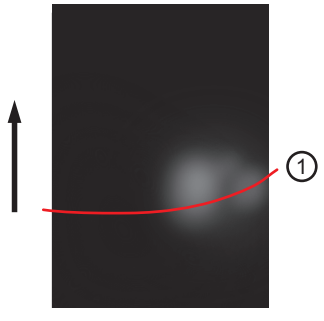
6. **Print the image. Has the problem been resolved?**

   If you change the values in [Paper Transfer Belt] and [Transfer Timing Roller], misalignment and color shift may occur. If this happens, check if the misalignment and color shift are within the permissible range.

Yes	Finished!
No	In [Paper Transfer Belt] and [Transfer Timing Roller], restore the previous settings, and then go to the next step. You cannot make further adjustments with the present system, or the problem may be caused by another factor. Select the setting considered optimal according to the printed sheets and finish this.

Uneven Gloss on Paper with Thickness of 0 in a Low Temperature and Humidity Environment

Due to heat accumulation, the image tends to stick to the fusing belt, causing orange peel and uneven gloss during separation.



M0EDIC1339

1. **Area affected with uneven gloss**

Cause:

With thin paper of thickness from 0 to 1, the image tends to stick to the fusing belt.

In a low temperature and humidity environment, the temperature is increased for adjustment, making the image prone to stick to the fusing belt.

Solution:

1. **In [Detailed settings] for custom paper, select 1241: [Fusing Temperature] and set the value for [Heat Roller Temp] 5°C lower than the initial factory setting.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Step 1 to 2.

3. **In [Detailed settings] for the custom paper, set [Process Speed Setting] in 1331: [Motor Speed] to [Low Speed].**
4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

5. **In [Detailed settings] for custom paper, select 1241: [Fusing Temperature] and decrease the value for [Heat Roller Temp] by 5°C.**

Note

- If decreasing the temperature causes toner peeling or unacceptable degree of printing quality degradation, adjust the temperature to one that does not cause problems.

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

Yes	Finished!
No	Repeat Step 5 to 6. If decreasing the temperature does not have an effect, this cannot be resolved.

River Mark

M0EDIC1338

Cause:

Due to the heat in the area where non-pressurized heating is applied in the fusing nip, wavy river marks appear in the direction of the paper width.

Occurrence conditions:

Synthetic paper

Solution:

1. **In [Detailed settings] for custom paper, select 1241: [Fusing Temperature] and set the value for [Heat Roller Temp] 5°C lower than the initial factory setting.**

   Note

   - If decreasing the temperature causes toner peeling or unacceptable degree of printing quality degradation, adjust the temperature to one that does not cause problems.

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

Yes	Finished!
No	Repeat Step 1 to 2.

3. **In [Detailed settings] for the custom paper, set [Process Speed Setting] in 1331: [Motor Speed] to [Low Speed].**
4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

5. **In [Detailed settings] for custom paper, select 1241: [Fusing Temperature] and decrease the value for [Heat Roller Temp] by 5°C.**

   Note

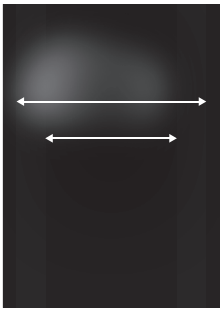
   - If decreasing the temperature causes toner peeling or unacceptable degree of printing quality degradation, adjust the temperature to one that does not cause problems.

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

Yes	Finished!
No	Repeat Step 5 to 6.

Uneven Gloss around the Edge of Paper

When large paper is fed after small paper, the glossiness of the roughened surface of the fusing belt is reduced, resulting in uneven gloss.



M0EDIC1337

Uneven gloss occurs around the edges of the paper.

Cause:

This occurs if the width of the previously fed paper is lower than that of the paper fed after it.

Solution:

1. **Does uneven gloss occur?**

Yes	Finished!
No	Go to the next step.

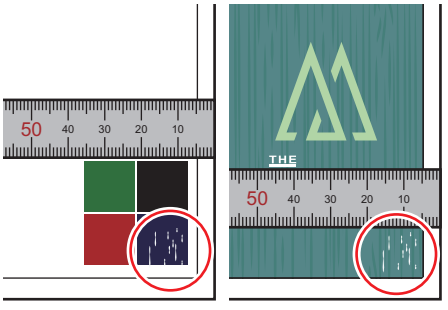
2. **In the 05: [Machine: Maintenance] group on the [Operator Adjust.] menu, select 0511: [Smooth Fusing Belt] and execute [Belt Scratches].**
3. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Step 2 to 3.

White Spots at the Edge in High Temperatures

This occurs in the area 20 mm to 30 mm (0.8-1.2 inches) away from the trailing edge of paper and 20 mm away from either side edge of paper.

Due to the temperature condition of thin paper, the paper transport is affected, causing the trailing edge of paper to curl upward and come into contact with the fusing belt at the fusing unit entrance, resulting in white spots.



M0EDIC1395

Cause:

- White spots at the trailing edge of paper on Side 2 when using paper with a thickness of 2 (80.0 gsm) or less.
- High temperature and humidity environment (over 27°C, 80%)

Solution:

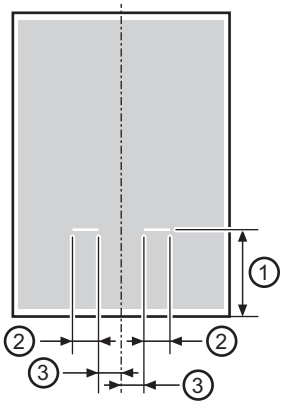
1. **In [Detailed settings] for custom paper, select 1331: [Motor Speed], and then increase the value in [Fusing Belt] in steps of 1%.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Step 1 to 2.

Roller Stain White Spots

- Both sides
- Side 1
- Paper feed direction
- 120 mm (4.7 inches) from the trailing edge of paper
- Direction of paper width

White spots with a width of approximately 15 mm (0.6 inches) appear at the area 35 mm to 45 mm (1.4- 1.6 inches) away from the center of the paper.



M0EDIC1357

1. **120 mm (4.7 inches)**
2. **15 mm (0.6 inches)**
3. **35–40 mm (1.4- 1.6 inches)**

Cause:

With halftone images formed by isolated dots, the connection between the toner particles is weak. When combined with paper with low fusibility, the fusibility is sufficient to prevent smearing in accordance with the product standard, but if the duplex unit's transfer roller stops and restarts, its friction causes the toner to peel.

Occurrence conditions:

Paper type prone to this problem

- Paper with indentations
- Textured paper

Halftone and other images that are likely to produce isolated dots are prone to this problem.

This occurs only during duplex printing

Solution:

Important

- **Step 3 can be performed only if it is acceptable to reduce throughput.**

1. **In [Detailed settings] for custom paper, select 1241: [Fusing Temperature] and set the value for [Heat Roller Temp] 5°C lower than the initial factory setting.**

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

Yes	Go to the next step.
No	Repeat Step 1 to 2. Keep trying this up to the maximum temperature of 185°C.

3. **In [Detailed settings] for the custom paper, set [Process Speed Setting] in 1331: [Motor Speed] to [Low Speed].**

Note

- If increasing the temperature causes glossy streaks, wavy creases, or fusing jams, adjust the temperature to one that does not cause problems.

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

Yes	Finished!
No	Cannot be solved by this flow.

Dirtied Printouts

Background Stains

Degraded toner sticks to the drum, leading to background stains.

Cause:

When the toner consumption is relatively small compared to operations such as repeated adjustments or printing a few pages with low coverage, toner in the developer degrades. Then, if the toner stays in the development unit, it absorbs moisture from the air, leading to a degradation in charge capacity.

If printing is executed in this state, newly supplied toner deprives the degraded toner of charge, and then the degraded toner sticks to the drum, causing background stains.

Occurrence conditions:

- High temperature / Humidity (If the toner is left for a long time, the problem may occur even if the humidity is 50% or less.)
- Highly flat smooth coated paper

Solution:

1. **In the 05: [Machine: Maintenance] group on the [Operator Adjust.] menu, select 0506: [Execute Developer Refreshing].**
2. **Print the image. Has the problem been resolved?**

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

Other

Reduced Color Gamut

Cause:

Even if the maximum density of each color of CMYK is within the tolerance of the product standard, if it is lower than the target value, the color gamut may not satisfy the JC coverage (POD128: 97% or higher, TYPE6000 70W: 90% or higher) of the product standard.

Occurrence conditions:

Maximum density doesn't reach to the target line.

Solution:

1. **Perform calibration (manually or automatically).**
2. **On the calibration result, is the measured maximum density for each color higher than the target value?**

Yes	Finished!
No	Go to the next step.

3. **In the 02: [Execute Image Quality Adjustment] group on the [Operator Adjust.] menu, select and execute 0202: [Maximum Image Density].**
4. **Perform calibration (manually or automatically).**
5. **On the calibration result, is the measured maximum density for each color higher than the target value?**

Yes	Finished!
No	Repeat Step 3 to 5.

7. Troubles Related to Paper Feeding and Delivery

First Checkpoint

Common Troubleshooting

If trouble occurs, first check the following.

1. **Check if the specified paper length matches that of the loaded paper.**

Yes	Go to the next step.
No	Specify the paper size correctly, and then load the paper.

2. **Check if the side fences and end fence of the paper feed tray are positioned correctly.**

   For details, see page 93 "Attaching the Side Fences and End Fence Correctly".

3. **Measure the paper curl.**

   If the curl exceeds the acceptable range, decurl the paper.

   If the curl is within the acceptable range, go to the next step.

   For details on measuring and decurling the curl, see page 91 "Measuring the Curl / Decurling".

4. **Check if the paper is curled upward or downward.**

Yes	Load the sheets the other way up.
No	Go to the next step.

5. **Fan the paper.**

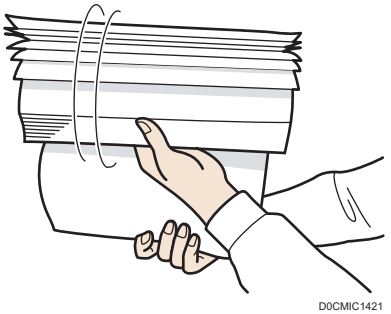
   For details, see page 89 "Fanning the Paper".

Fanning the Paper

Important

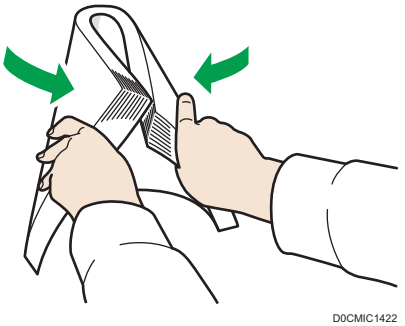
- **If you load coated paper, label paper, transparencies, or thick paper of 150.1– 470.0 g/m^2 (55.1 lb. Cover–172 lb. Cover), it is important that you fan the sheets thoroughly. Misfeeds may occur if paper is not fanned thoroughly. If the machine feeds several sheets of paper together or it does not feed paper, fan paper, and load it again.**

1. **Fan the stack of paper to load.**

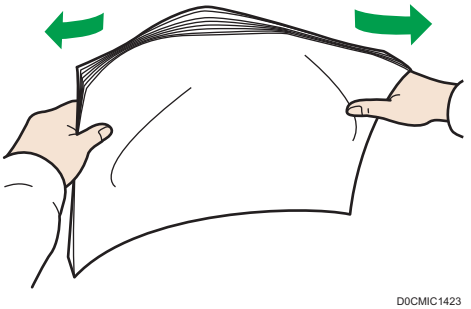


D0CMIC1421

2. **Holding its shorter ends, flex the stack back and forth to create space between the sheets. Repeat this several times.**

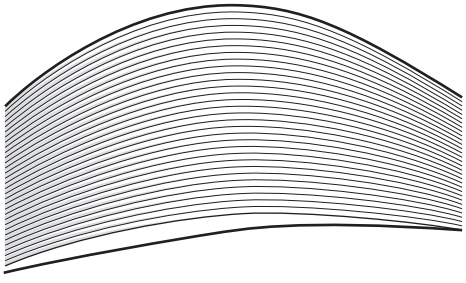


D0CMIC1422



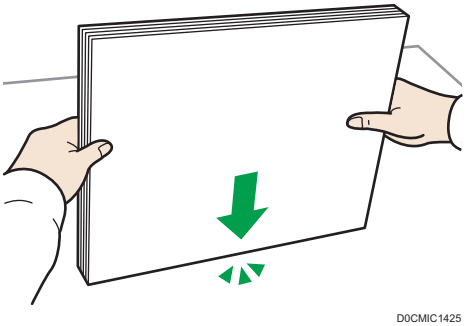
D0CMIC1423

3. **Make sure there is space between the sheets.**



D0CMIC1424

4. **Hold the stack of paper in both hands and tap the long and short edges of the paper against a flat surface to align them.**



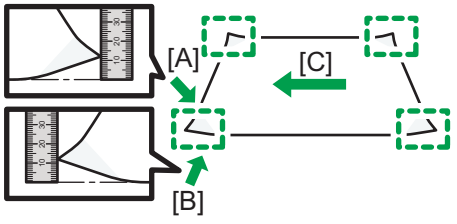
D0CMIC1425

Measuring the Curl / Decurling

Measuring the curl

Place a sheet of curled paper on a flat surface. Apply the scale to the edges of the paper to measure the curls at the 4 edges.

Count the maximum measured value as the curl.



M0EDIC1372

[A]: Measure the horizontal curl (to the direction of the arrow)

[B]: Measure the vertical curl (to the direction of the arrow)

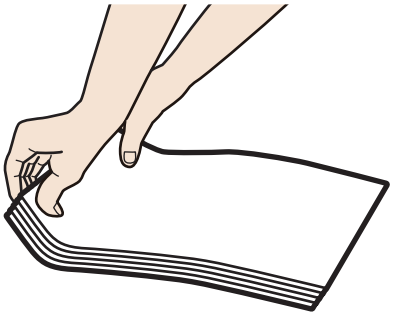
[C]: Paper feed direction

Acceptable curl

A curl within ±10 mm throughout the sheet is acceptable.

Decurling

1. **Place the sheet on a flat surface with the curl facing downward.**
2. **Holding an edge of the paper, curl it in the opposite direction to decurl it.**



M0EDIC1373

Note

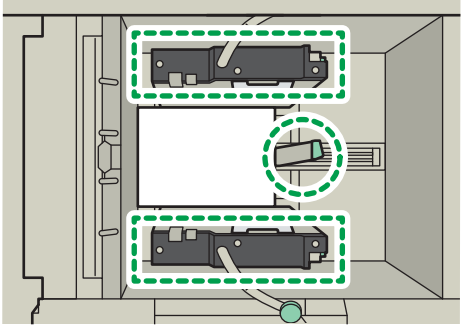
- Decurl the paper until the curl is within the acceptable range.
  - If double-feeding occurs: The curl is better if it is downward.
  - If paper misfeeds occur: The curl is better if it is upward.

3. **Decurl the other edge in the same way.**

Attaching the Side Fences and End Fence Correctly

The side fences and end fence are attached correctly

Check if the side fences and end fence are attached correctly.

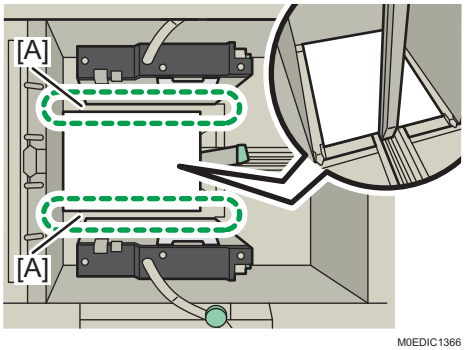


M0EDIC1365

The side fences are not attached correctly

The side fences are positioned too widely.

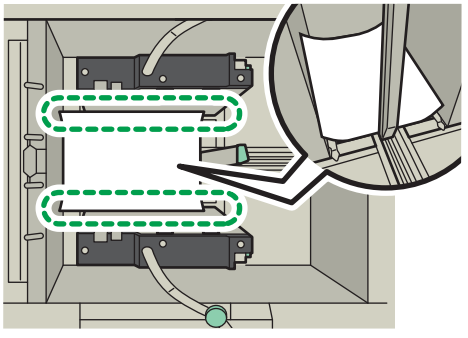
There is a gap (A) between the side fences and the paper, so the paper fed is skewed towards the paper feed direction.



M0EDIC1366

The side fences are positioned too narrowly.

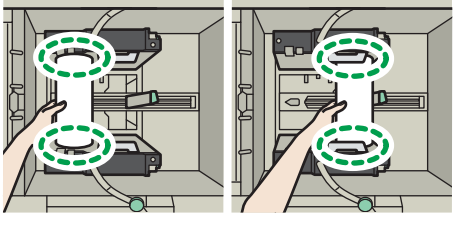
The side fences are positioned too narrowly so that the paper is arched, causing the paper's resistance to be lifted at the front edge, resulting in paper misfeeds.



M0EDIC1367

Solution:

Lifting the paper with it arched horizontal to the paper feed direction, measure with a scale the gap between the paper and side fences.



D0EDIC1368

Position the side fences so that the gap between them and the paper is 1 mm to 2 mm.

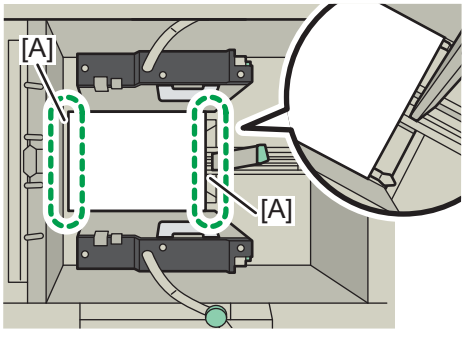
Note

- To move the side fences, loosen the screws on their arms to unlock them.
  - "Loading Paper into the Paper Tray", Introduction and Basic Operations

The end fences are not attached correctly

The end fences are positioned too widely.

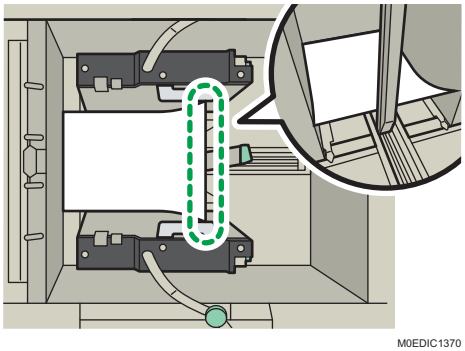
The gap (A) between the end fence and paper, and the gap between the faceplate and paper add up to 3 mm (0.1 inches) or more. The paper is misaligned backward, causing double feeding.



M0EDIC1369

The end fences are positioned too narrowly.

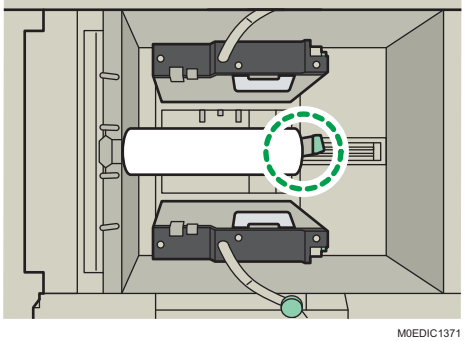
The end fence is positioned too narrowly so that the paper is arched, causing the paper's resistance to be lifted at the front edge which results in paper misfeeds.



M0EDIC1370

Solution:

Lifting the paper with it arched vertical to the paper feed direction up to the bottom part of the end fence leaf spring, measure with a scale the gap between the paper and end fence.



M0EDIC1371

Position the end fence so that the gap between it and the paper is 1 mm to 2 mm.

Note

- To move the end fence, unlock it.

- "Loading Paper into the Paper Tray", Introduction and Basic Operations

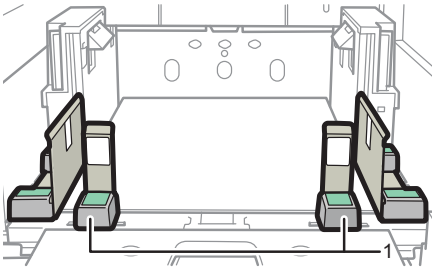
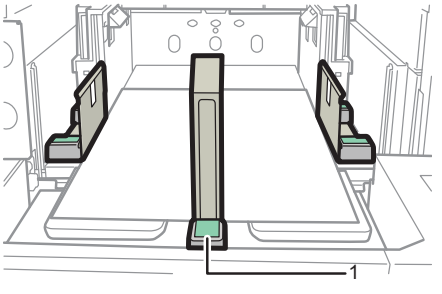
Attaching the Small Tab End Fence to the Wide Large Capacity Tray

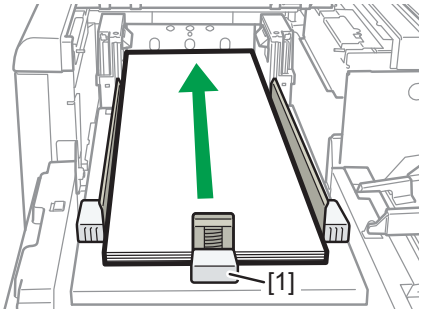
"Loading Paper into the Paper Tray", Introduction and Basic Operations

Attaching the Tab Fence in the Wide Large Capacity Tray

"Loading Paper into the Paper Tray", Introduction and Basic Operations

Attaching the Side Fences, Auxiliary Side Fence, and End Fence (for Long Paper)

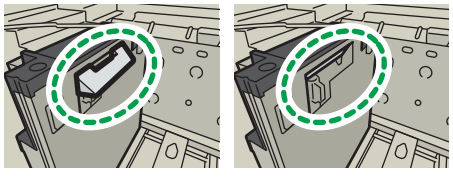
Paper	Fences to use
420.0 – 559.9 mm (16.5-22 inches) (With the LCT banner sheet tray attached)	1. Short end fences (2)  M0EDIC1382
560.0 – 700.0 mm (22-27.6 inches) (With the LCT banner sheet tray attached)	1. Long end fence (1)  M0EDIC1383

Paper	Fences to use
487.8 mm – 1260.0 mm (19.2-49.6 inches) (With the Extension output banner sheet tray attached)	1. Long end fence (1)  M0EDIC1380

Note

- Use the auxiliary side fence and side fences as deemed appropriate.
- Attach the auxiliary side fence for paper length of 487.8 mm (19.2 inches) or longer.
- Attach the auxiliary side fence parallel to the side fence flush against the side of the paper.

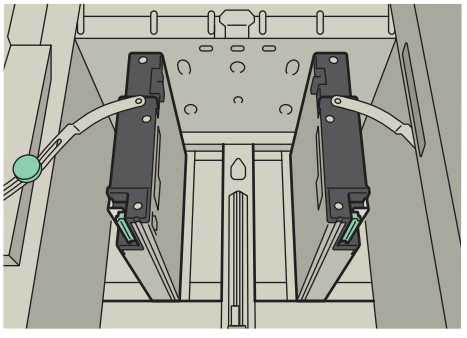
Using the Paper Retainer Correctly



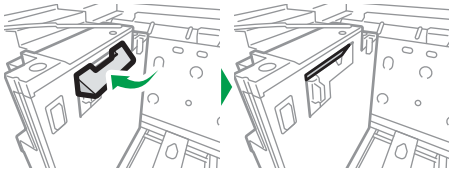
M0EDIC1374

For Paper Weight 6 or above

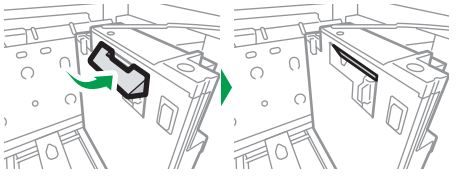
Move the paper retainer Away



M0EDIC1375



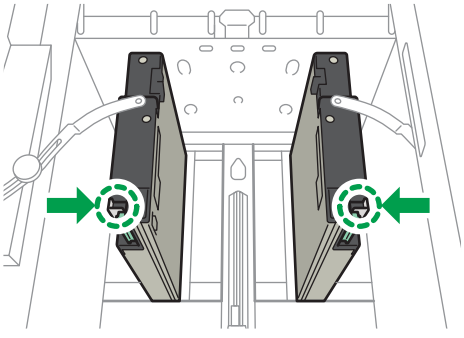
M0EDIC1376



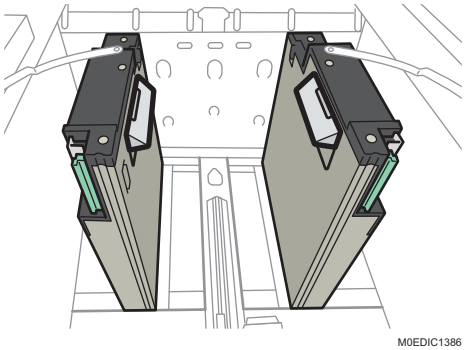
M0EDIC1377

For Paper Weight 5 or below

Press the lever and extend the paper retainer.



M0EDIC1378



M0EDIC1386

Paper Jam/Misfeed

What to Do If J097, J098, or J029 Appears

J097/J098/J029 may appear when using color, transparent or translucent media, or depending on the status of the loaded paper or CIS.

Cause:

- The contact image sensor (CIS) fails to detect the edge of paper in the main scanning direction.
- The paper that can be detected by the CIS varies depending on the CIS illumination time.

Solution:

1. **Is color transparent, or translucent paper being used?**

Yes	Go to the next step.
No	Finished!

2. **In [Detailed settings] for custom paper, is 06: [Paper Edge Detection] in 1321: [Jam Detection] set to an item other than"3"?**

Yes	Set 06 [Paper Edge Detection] to "3".
No	Go to the next step.

3. **Print 50 sheets on one side. Has a paper jam occurred?**

Yes	Go to the next step.
No	Finished!

4. **Has printing been done with 06: [Paper Edge Detection] in 1321: [Jam Detection] set to "4" in [Detailed settings] for custom paper?**

Yes	Proceed to Step 6.
No	Set 06 [Paper Edge Detection] to "4".

5. **Print 50 sheets on one side. Has a paper jam occurred?**

Yes	Go to the next step.

No	Finished!

6. **Has printing been done with 06: [Paper Edge Detection] in 1321: [Jam Detection] set to "5" in [Detailed settings] for custom paper?**

Yes	Cannot be solved by this flow.
No	Set 06 [Paper Edge Detection] to "5".

7. **Print 50 sheets on one side. Has a paper jam occurred?**

Yes	Cannot be solved by this flow. Contact your service representative.
No	Finished!

Double Feeding (J099, J470, J471, J485, J486, J500, J501)

Cause:

The cause may vary depending on the paper and operating environment.

Solution:

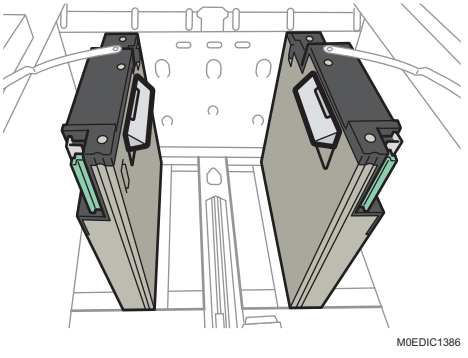
1. **Perform the common troubleshooting procedure.**

   For details, see page 89 "Common Troubleshooting".

2. **Check if the double feeding is resolved.**

Yes	Finished!
No	Go to the next step.

3. **If using paper with a thickness of Paper Weight 5 or below, extend the paper retainer.**



If using paper with a thickness of Paper Weight 6 or above, go to the next step.

4. **To feed paper from LCT banner sheet tray, attach the end fence for long paper.**

For details, see page 96 "Attaching the Side Fences, Auxiliary Side Fence, and End Fence (for Long Paper)".

- For paper with a length of 420.0 mm to 559.9 mm (16.5 inches to 22.0 inches), attach the 2 short end fences.
- For paper with a length of 560.0 mm to 700.0 mm (22.0 inches to 27.6 inches), attach the 1 long end fence.

If Vacuum Feed Banner Sheet Tray Type S9 is not used, go to the next step.

5. **To print on tab stocks, attach the tab sheet holder.**

For details, see page 96 "Attaching the Tab Fence in the Wide Large Capacity Tray".

To print on other types of paper, go to the next step.

6. **Check if the double feeding is resolved.**

Yes	Finished!
No	Go to the next step.

7. **To feed paper from Extension output banner sheet tray, attach the side fences and end fence for extra-long paper.**

For details, see page 96 "Attaching the Side Fences, Auxiliary Side Fence, and End Fence (for Long Paper)".

Otherwise, go to the next step.

8. **Check if the double feeding is resolved.**

Yes	Finished!

No	Go to the next step.

9. **In [Detailed settings] for custom paper, select 1301: [Main/2-Tray LCIT: Paper Feed Mode] and set [Paper Feed Mode:Fan Level] to [Prevent Double Feed (Weaker Blow)].**

Note

- If set to [Prevent Double Feed (Weaker Blow)], paper misfeeds may be prone to occur with paper with a width of 182 mm to 225 mm (7.2 inches to 8.9 inches). If this happens, attach the small tab end fence. For details, see page 96 "Attaching the Small Tab End Fence to the Wide Large Capacity Tray".

10. **Check if the double feeding is resolved.**

Yes	Finished!
No	Go to the next step.

11. **In [Detailed settings] for custom paper, select 1301: [Main/2-Tray LCIT: Paper Feed Mode] and set [Paper Feed Mode:Fan Level] to [Prevent Double Feed (Weakest Blow)].**

Note

- If set to [Prevent Double Feed (Weakest Blow)], paper misfeeds may be prone to occur with paper with a width of 182 mm to 225 mm (7.2 inches to 8.9 inches). For details, see page 96 "Attaching the Small Tab End Fence to the Wide Large Capacity Tray".

12. **Check if the double feeding is resolved.**

Yes	Finished!
No	Go to the next step.

13. **In [Detailed settings] for custom paper, select 1303-02: [Extend Fan Operating Time], and then change it from "Off" to "On".**

14. **Check if the double feeding is resolved.**

Yes	Finished!
No	There is no other solution, so do not feed paper.

Note

- If the double feeding still persists after performing the above procedure, do as follows.
  - If paper misfeeds persist even after performing the abovementioned procedure, enable 304 [Auto Continue Paper Feeding] in [Operator Adjust.] in order to resolve the problem of reduced operation rate due to paper jam detection.

- Double feeding may be erroneously detected when printing on thin paper with a narrow width. Select 1321-03: [Detect JAM080] in [Detailed settings] for custom paper, and then set it to "Off".

Excessive Skew/Shifting (J097, J098)

Cause:

Due to the long distance between the paper feed belt and topmost paper of the stack just before the bottom plate elevation, the paper orientation is unstable when it adheres to the paper feed belt, resulting in excessive skews.

Solution:

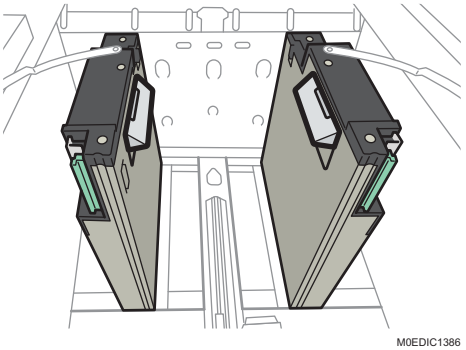
1. **Perform the common troubleshooting procedure.**

   For details, see page 89 "Common Troubleshooting".

2. **Check if the skew is resolved.**

Yes	Finished!
No	Go to the next step.

3. **If using paper with a thickness of Paper Weight 5 or below, extend the paper retainer.**



M0EDIC1386

If using paper with a thickness of Paper Weight 6 or above, go to the next step.

4. **To feed paper from Vacuum Feed Banner Sheet Tray Type S9, attach the end fence for long paper.**

   For details, see page 96 "Attaching the Side Fences, Auxiliary Side Fence, and End Fence (for Long Paper)".

- For paper with a length of 420.0 mm to 559.9 mm (16.5 inches to 22.0 inches), attach the 2 short end fences.
- For paper with a length of 560.0 mm to 700.0 mm (22.0 inches to 27.6 inches), attach the 1 long end fence.

5. **If feeding paper from the paper feed tray, attach the tab sheet holder and small tab end fence.**

   For paper width of 297 mm (11.7 inches) or above, attach the tab sheet holder. For details, see page 96 "Attaching the Tab Fence in the Wide Large Capacity Tray".

   For paper width below 297 mm (11.7 inches), attach the small tab end fence. For details, see page 96 "Attaching the Small Tab End Fence to the Wide Large Capacity Tray".

6. **Check if the skew is resolved.**

Yes	Finished!
No	Go to the next step.

7. **To feed paper from Extension output banner sheet tray, attach the side fences and end fence for extra-long paper. For paper with a length of 487.8 mm (19.2 inches) or above, change the maximum stack height from 50 mm to 40 mm (2.0 inches to 1.6 inches).**

   For details, see page 96 "Attaching the Side Fences, Auxiliary Side Fence, and End Fence (for Long Paper)".

   Otherwise, go to the next step.

8. **Check if the skew is resolved.**

Yes	Finished!
No	Go to the next step.

9. **If stacking paper exceeding a length of 487.8 mm (19.2 inches) on Extension Vacuum Feed Banner Sheet Tray Type S14, reduce the number of stacked sheets according to the lower level as indicated on the stacking height decal.**

M0EDIC1396

10. **Remove the tab sheet holder or small tab end fence.**
11. **In [Detailed settings] for custom paper, select 1301: [Main/2-Tray LCIT: Paper Feed Mode] and set [Paper Feed Mode:Fan Level] to [Prevent Double Feed (Weaker Blow)].**

12. **Check if the skew is resolved.**

Yes	Finished!
No	Go to the next step.

13. **In [Detailed settings] for custom paper, select 1301: [Main/2-Tray LCIT: Paper Feed Mode] and set [Paper Feed Mode:Fan Level] to [Prevent Double Feed (Weakest Blow)].**
14. **Check if the skew is resolved.**

Yes	Finished!
No	There is no other solution, so do not feed paper.

Paper Misfeeds (J430, 431, 445, 446, 460, 461)

Solution

1. **Perform the common troubleshooting procedure.**

   For details, see page 89 "Common Troubleshooting".
2. **Check if the paper misfeed is resolved.**

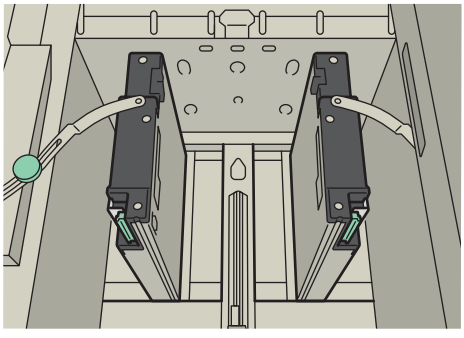
Yes	Finished!
No	Go to the next step.

3. **With the paper with a width of 182 mm to 225 mm (7.2 inches to 8.9 inches), attach the small tab end fence.**

   For details, see page 96 "Attaching the Small Tab End Fence to the Wide Large Capacity Tray".

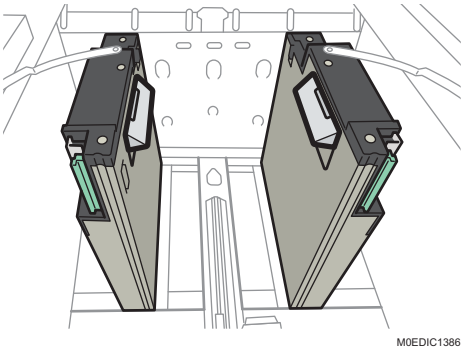
   Otherwise, go to the next step.

4. **When using paper with a thickness of Paper Weight 6 or above, move the paper retainer away.**



M0EDIC1375

If using paper with a thickness of Paper Weight 5 or below, extend the paper retainer.



M0EDIC1386

For details, see page 97 "Using the Paper Retainer Correctly".

5. **With a paper weight of 350.1 gsm to 360 gsm, check if it is registered to the Master Library.**

Yes	Go to the next step.
No	In [Detailed settings] for custom paper, select 1302: [2-Tray LCT: Vacuum Fan Level] and change the value to 10% above the default setting.

6. **To feed paper from Vacuum Feed Banner Sheet Tray Type S9, attach the side fences and end fence for long paper.**
   - For paper with a length of 420.0 mm to 559.9 mm (16.5 inches to 22.0 inches), attach the 2 short end fences.
   - For paper with a length of 560.0 mm to 700.0 mm (22.0 inches to 27.6 inches), attach the 1 long end fence.

For details, see page 96 "Attaching the Side Fences, Auxiliary Side Fence, and End Fence (for Long Paper)".

7. **To feed paper from Extension output banner sheet tray, attach the side fences and end fence for extra-long paper.**

   For details, see page 96 "Attaching the Side Fences, Auxiliary Side Fence, and End Fence (for Long Paper)".

   Otherwise, go to the next step.

8. **Check if the paper misfeed is resolved.**

Yes	Finished!
No	Go to the next step.

9. **In [Detailed settings] for custom paper, select 1301: [Main/2-Tray LCIT: Paper Feed Mode] and set [Paper Feed Mode:Fan Level] to [Prevent Non Feed (Stronger Blow)].**
10. **Check if the paper misfeed is resolved.**

Yes	Finished!
No	Go to the next step.

11. **In [Detailed settings] for custom paper, select 1301: [Main/2-Tray LCIT: Paper Feed Mode] and set [Paper Feed Mode:Fan Level] to [Prevent Non Feed (Strongest Blow)].**
12. **Check if the paper misfeed is resolved.**

Yes	Finished!
No	Go to the next step.

13. **In [Detailed settings] for custom paper, set 1303-04: [Tray Elevation Assist] [Assist Mode] from "Off" to "On".**

    If the paper misfeed occurred just before running out of paper, change the setting from "0" to "1".

    Otherwise, change the setting from "0" to "2".

14. **Check if the paper misfeed is resolved.**

Yes	Finished!
No	Go to the next step.

15. **Remove a sheet of paper, measure its thickness with a micrometer or vernier caliper, and then enter the measured value in 1303-05: [Tray Elevation Assist] [Paper Thickness] in [Detailed settings] for custom paper.**

Note

- Measure the thickest part of the envelope.

16. **Check if the paper misfeed is resolved.**

Yes	Finished!
No	Go to the next step.

17. **Cleaning the Paper Feed Belt.**

"241 2-Tray LCT: Tray 3, 4 : Feed Belt/ 242 2-Tray LCT: Tray 5, 6 : Feed Belt/243 2-Tray LCT: Tray 7, 8 : Feed Belt", Regular Maintenance Guide

18. **Check if the paper misfeed is resolved.**

Yes	Finished!
No	Go to the next step.

19. **In [Detailed settings] for custom paper, set 1303-02: [Extend Fan Operating Time] from "Off" to "On".**

20. **Check if the paper misfeed is resolved.**

Yes	Finished!
No	There is no other solution, so do not feed paper.

Note

- If paper misfeeds persist even after performing the abovementioned procedure, enable 304 [Auto Continue Paper Feeding] in [Operator Adjust.] in order to resolve the problem of reduced operation rate due to paper jam detection.

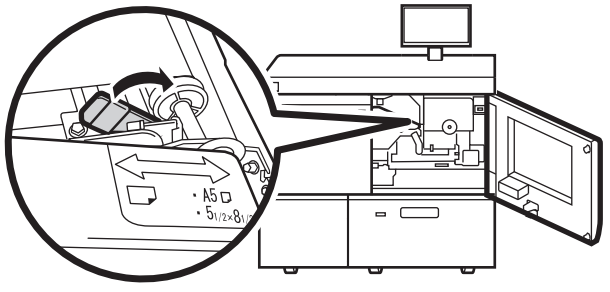
Paper Jam Occurs in the Paper Transfer Unit

To feed paper with a paper weight of 350.1 gsm or above and length of 205 mm or below (when using the top tray) or 248 mm (9.8 inches) or below (when using the bottom tray), load the paper in the short edge feed (SEF) orientation.

Others

Settings Required for Using A5 (LEF) and HLT (LEF) Paper and Postcards

- Settings Required for Using A5 (LEF) and HLT (LEF) Paper and Postcards
  - Standard Size: A5 (LEF), postcard (LEF/SEF), HLT (LEF)
- Custom Size: Paper with a width that is shorter than 16.4 mm (0.6 inches) or longer than 139.7 mm (5.5 inches)



M0EDIC1317

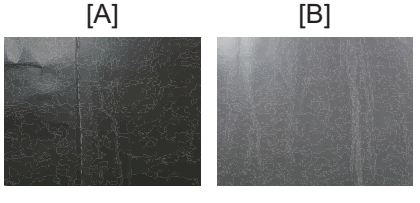
- The entrance roller can be moved up and down within a range of ±1 mm.

Note

- Diagonal creases may occur if paper with a thickness of Paper Weight 3 (105.0 gsm) is printed with the entrance roller of the pipe cooling unit lowered. If this happens, return the entrance roller to its original position.

Creases / Wavy Streaks

This occurs with thin paper. (This is prone to occur when printing solid fills or other images covering a high image area on both sides on A3, DLT, or larger paper with a thickness of 120 gsm or below.)



M0EDIC1355

[A]: Creases

[B]: Wavy Streaks

Cause:

Transfer Nip

When the envelope passes though the transfer nip, the slack part of the paper is prone to move toward the center during transfer, causing creases at the trailing edge of paper. There are presets for standard paper to prevent creases. Other than standard paper, creases may occur on envelopes.

Fusing Nip

When the envelope passes through the fusing nip, wavy streaks may occur due to the gap in thickness between the areas with 2 sheets overlapping and areas with 3 sheets overlapping. This may occur in the overlapping areas around the flap.

Transfer Nip

1. **In [Detailed settings] for custom paper, select 1331: [Motor Speed], and then set [Paper Transfer Belt] to +0.4%.**
2. **Print the image. Has the problem been resolved?**

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

Fusing Nip

1. **In [Detailed settings] for the custom paper, select 1246: [Fusing Nip Width Adjustment: Other than Envelope], and then set the value in nip width to "3".**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

3. **In [Detailed settings] for the custom paper, select 1246: [Fusing Nip Width Adjustment: Other than Envelope], and then set the value in nip width to "2".**
4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

5. **In [Detailed settings] for custom paper, select 1241: [Fusing Temperature] and decrease the value for [Heat Roller Temp] by 10°C.**
6. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Step 5 to 6. Make sure not to exceed 30°C.

7. **In [Detailed settings] for custom paper, select 1241: [Fusing Temperature] and decrease the value for [Heat Roller Temp] by 5°C.**
8. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Step 7 to 8. Bk: Regarding temperature, make sure not to exceed -25°C for Bk and -15°C for FC.

9. **In [Detailed settings] for the custom paper, select 1241: [Fusing Temperature], and then decrease the value in [Correct Temp: Pre-Feed] by 5°C.**
10. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

11. **In [Detailed settings] for the custom paper, select 1331: [Motor Speed], and then set [Process Speed Setting] to "Low Speed".**
12. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

13. **In [Detailed settings] for custom paper, select 1241: [Fusing Temperature] and decrease the value for [Heat Roller Temp] by 5°C.**
14. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Repeat Step 13 to 14. Bk: Regarding temperature, make sure not to exceed -35°C for Bk and -25°C for FC.

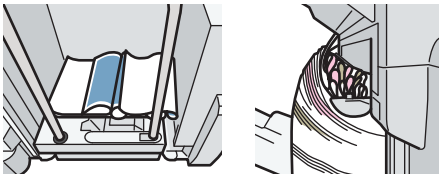
Thin Paper may have Problems such as Curling, Stacking Error, Paper Jam, and Sheets being Bent at the Corners

Cause:

Thin paper and other paper that requires high fusing temperatures are prone to curl due to the large temperature difference between the fused and pressurized sides.

As a result, the following problems may occur when delivering the paper.

- Paper curling
- Not stacked properly
- Paper jams
- Folded edges



M0EDIC1362

Solution:

Note

- You need to register the paper as custom paper in advance.

1. **In [Detailed settings] for the custom paper you are using, select 1311: [Correct Paper Curl], and then set [Correction Mode] to [U Curl Correction Level: Large] or [Π Curl Correction Level: Large] according to the curl.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

3. **Is the finisher shift tray selected to the output tray?**

Yes	Proceed to Step 6.

No	Go to the next step.

4. **Select the finisher shift tray to the output tray.**
5. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

6. **In [Detailed settings] for the custom paper you are using, select 1241: [Fusing Temperature], select [Heat Roller Temp], and then decrease the value in the following corresponding settings by 5°C.**
7. **Print 20 or more sheets. Is the condition of the image acceptable?**

Yes	Go to the next step.
No	No further improvement is likely.

8. **Check if the toner fusibility is within the permissible range.**

Note

- Assess if the fusibility is within the permissible range 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 the image is wiped with an optical cloth.

Yes	Go to the next step.
No	No further improvement is likely.

9. **Has the paper output improved?**

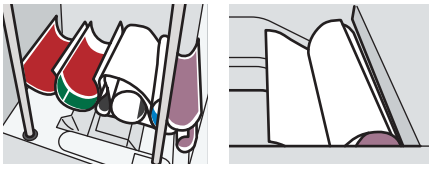
Yes	Finished!
No	Repeat Steps 6 to 9. If the problem still persists, contact your service representative.

Metallic Paper and Synthetic Paper may have Problems such as Curling, Stacking Error, Paper Jam, and Sheets being bent at the Corners

Cause:

The difference in the thermal contraction between the front and back of the paper is larger with synthetic paper and metallic paper compared to plain paper. Furthermore, they require high fusing temperatures, and are prone to curl due to the large temperature difference between the fused and pressurized sides. As a result, the following problems may occur when delivering the paper.

- Paper curling
- Not stacked properly
- Paper jams
- Folded edges



M0EDIC1363

Solution:

Note

- You need to register the paper as custom paper in advance.

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.

3. **In the printer settings, change the paper to be output in faced up.**
4. **Print the image. Has the problem been resolved?**

Yes	Finished!

No	Go to the next step.

5. **Check if the settings are specified to deliver paper to the finisher shift tray.**

Yes	Proceed to Step 8.
No	Go to the next step.

6. **Select the finisher shift tray to the output tray.**
7. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

8. **In [Detailed settings] for the custom paper you are using, select 1241: [Fusing Temperature], select [Heat Roller Temp], and then decrease the value in the following corresponding settings by 5°C.**
9. **Print 20 or more sheets. Is the condition of the image acceptable?**

Yes	Go to the next step.
No	No further improvement is likely.

10. **Is the toner fusibility within the permissible range?**

Note

- Assess if the fusibility is within the permissible range 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 the image is wiped with an optical cloth.

Yes	Go to the next step.
No	No further improvement is likely.

11. **Has the paper output improved?**

Yes	Finished!
No	Repeat Steps 6 to 9. If the problem still persists, contact your service representative.

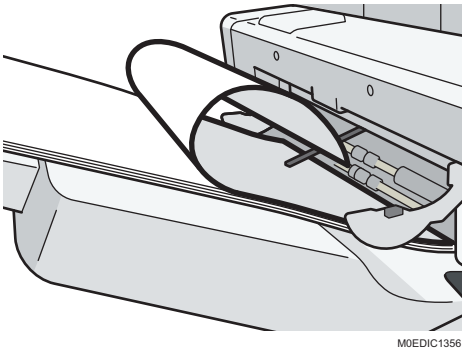
8. Post-Processing Option Troubleshooting

Finisher/Booklet Finisher

The Leading Edge of Paper Rolls Up (JAM607 / JAM609)

Cause:

A3 or larger paper with a thickness of Paper Weight 1 (cross-grain direction) or Paper Weight 2 (grain direction) are delivered with a face-up curl (approximately 15 mm (0.6 inches)), resulting in the leading edge of the paper riding up and rolling upward.

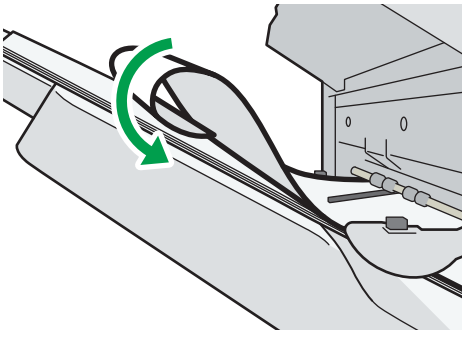


M0EDIC1356

On the other hand, the leading edge of paper with a thickness of Paper Weight 0 may droop, resulting in a steep contact angle with the output tray and the leading edge of paper rolling downward. Such a face-down curl is prone to occur especially when delivering the paper face up.

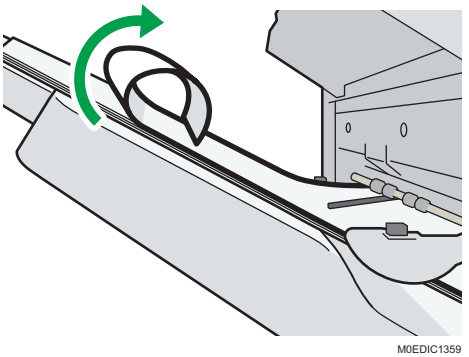
If the face-up curl is severe (15 mm (0.6 inches) or more), the leading edge of the paper will ride up and roll upward.

The leading edge of the paper curls downward



M0EDIC1358

The leading edge of the paper rides up and curls downward



M0EDIC1359

The sheets that are delivered thereafter collide with the rolled paper, blocking the paper exit due to a stacking error, and resulting in a paper jam (JAM607 / JAM609).

Solution:

1. **For paper with a thickness of Paper Weight 0, attach Output banner sheet tray.**
2. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

3. **In [Detailed settings] for custom paper, select 1311: [Correct Paper Curl], and then specify [Correction Mode].**

   To correct curls facing up, specify "U Curl Correction Level: Large" or "U Curl Correction Level: Small".

   To correct curls facing down, specify "Π Curl Correction Level: Large" or "Π Curl Correction Level: Small".

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

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

Note

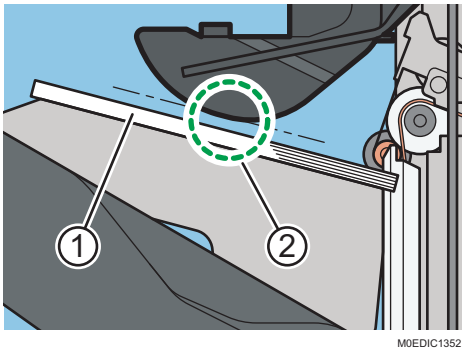
- If the curl cannot be decurled, deliver the paper either face down or face up according to the curl.

Not Stacked Properly (Carbonless Paper of Paper Weight 0/1)

Cause:

The Z-fold support tray was attached to lower the angle against the exit tray and reduce the transport resistance, but as a result, the jogger could not reach the paper surface to perform alignment in the direction of the paper width.

The width alignment cannot be performed with the Z-fold support tray attached

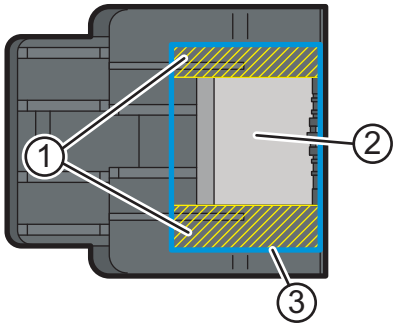


M0EDIC1352

1. **Stacked sheets**
2. **Jogger cannot reach the paper surface**

The Z-fold support tray's width is too narrow, so both edges of the paper protrude and droop from the Z-fold support tray. The non-alignment becomes severe especially with long edge feed (LEF) of sheets with curls on sides in the cross-grain direction.

Range of paper drooping in the direction of the paper width with the Z-fold support tray attached:



1. **Drooping part**
2. **Z-fold support tray**
3. **A4 LEF stacked paper**

Due to the Z-fold support tray, the contact position of the leading edge of the paper and exit tray becomes farther, and the timing for the trailing edge of the paper to drop is delayed. If a side of the jogger comes into contact with the delivered paper, the paper goes out of alignment in the direction of the paper width, and the alignment accuracy is further worsened.

Solution:

Attach an Output banner sheet tray.

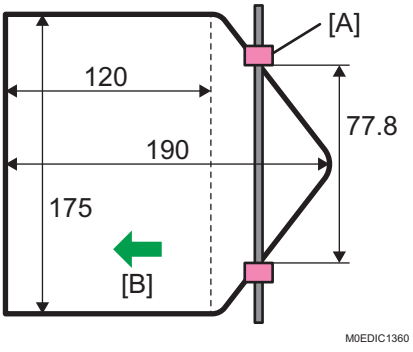
To attach an output tray for banner sheet, contact your service representative.

Envelopes with triangular flaps are not stacked properly

The trailing edge of a triangular flap envelope (center of the triangular flap) remains in the machine, so the envelope is not stacked in the correct order or drops from the output tray.

Cause:

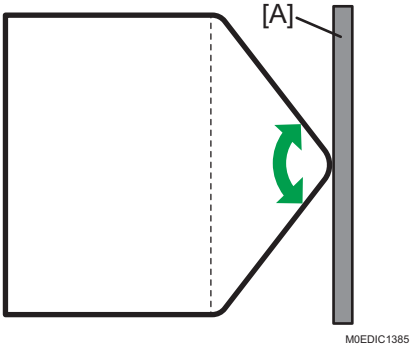
1. The trailing edge of the envelope is delivered by the paper exit roller to the exit tray, but the center of the flap at the trailing edge is still prone to remain in the machine when the envelope has passed the paper exit roller's nip.



[A]: Paper exit roller pitch

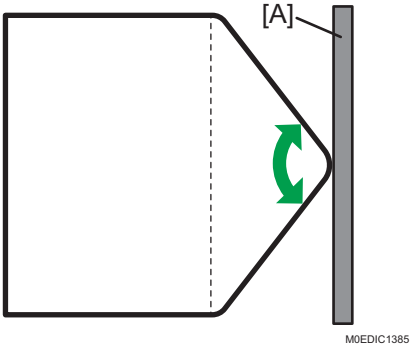
[B]: Paper feed direction

2. The center of the flap is humped, so the envelope fails to be flush against the end fence.



[A]: End fence

3. The flap is thinner than other parts of the envelope, so the height of the tray is prone to be higher than the paper exit roller as more envelopes are stacked. The angle of paper delivery becomes steep, resulting in increased resistance, and failure to deliver the envelope.



[A]: End fence

Solution:

Using the Z-fold support tray changes the position of the leading edge of the envelope to be delivered to the output tray, and this may help in reducing the problem of the trailing edge remaining.

However, the Z-fold support tray cannot be attached if Extension Vacuum Feed Banner Sheet Tray Type S14 is attached to Finisher Shift Tray 1.

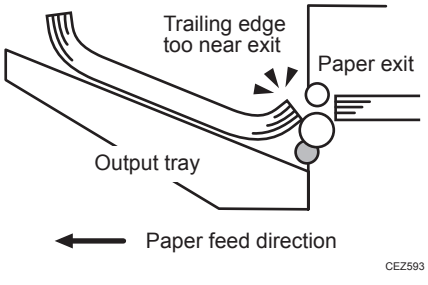
Also, note the following when attaching the Z-fold support tray.

- The accuracy of printed paper alignment is not guaranteed.
- The maximum stackable number of envelopes is 30. (Remove the stacked envelopes from the output tray when their number reaches 30.)

Trailing Edge of Stapled Sheets Close to the Paper Exit

Cause:

If the stapled sheets are curled strongly or become limp after delivery, 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.

Occurrence conditions:

- There is a tight curl on a delivered set of stapled sheets.
- Limp paper such as thin or recycled paper is used.

Solution:

1. **Attach the Z-fold support tray for multi-folding unit.**

2. **Print the image. Is the problem resolved?**

Yes	Finished!
No	Go to the next step.

3. **In [Detailed settings] for custom paper, select 1311: [Correct Paper Curl], and then specify [U Curl Correction Level: Large] or [U Curl Correction Level: Small].**
4. **Print the image. Is the problem resolved?**

Yes	Finished!
No	Contact your service representative.

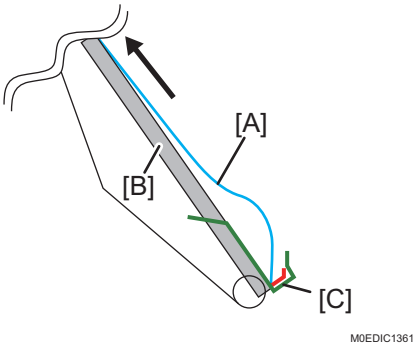
Note

- For details about attaching the Z-fold support tray for multi-folding unit, see "Special Notes When Using External Options", Specifications.
- If the Z-fold support tray for multi-folding unit is attached, the trailing edge of the ejected sheets will not be too close to the paper exit, so no problem will occur. However, the stapled sheets may not be stacked properly.

Stapled Sheets Are Scratched or Jammed

Cause:

In the binding process, when thin, coated paper [A] is discharged from the staple tray [B], as the staple tray that pushes and lifts up the trailing edge of the paper is at a steep angle (55°), it results in a difference in linear speed between the leading edge and trailing edge, making it buckle; the release pawl [C] is unable to lift it up, resulting in scratches on the paper and/or jams.



Occurrence conditions:

- High humidity
- Paper bends easily (in the cross-grain direction)
- Using long sheets of paper
- Using few sheets of paper

Solution:

Stapled sheets are scratched or jammed.

1. **Check if the paper thickness is Paper Weight 2 or less.**

Yes	Go to the next step.
No	The problem is likely to be a problem other than the problem described here.

2. **Check if the paper is curled downward.**

Yes	Go to the next step.
No	The problem is likely to be a problem other than the problem described here.

3. **In [Detailed settings] for custom paper, set 1311: [Correct Paper Curl].**

   Select "Large" or "Small" depending on the degree of decurling required.

4. **Check if the problem of scratching or jamming is resolved.**

Yes	Finished!
No	The problem is likely to be a problem other than the problem described here.

Stitching Missing, Incorrect Stitching Position, Ear-fold, or Misaligned Occurs

Cause:

It may occur when printing on thin paper of 64.0 g/m^2 or less.

Solution:

1. **Load the sheets the other way up.**

2. **In [Detailed settings] for custom paper, select 1311: [Correct Paper Curl], and then specify [Correction Mode].**

   To correct curls facing up, specify "U Curl Correction Level: Large" or "U Curl Correction Level: Small".

   To correct curls facing down, specify "∏ Curl Correction Level: Large" or "∏ Curl Correction Level: Small".

3. **Print the image. Is the problem resolved?**

Yes	Finished!
No	Contact your service representative.

Paper Stitched inside is Stained

Paper stitched inside is stained.

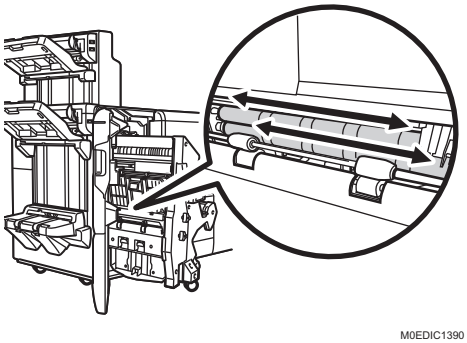
Cause:

The folding rollers of the booklet staple unit are stained.

Solution:

Clean the folding roller of the booklet staple unit.

1. **Pull the booklet staple unit.**
2. **Clean the rollers while turning the Rb11 knob.**



M0EDIC1390

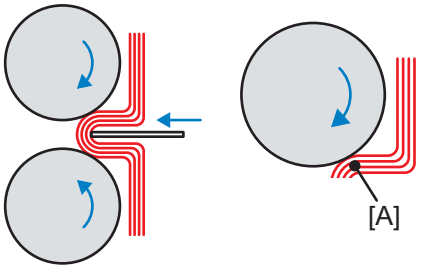
When Using the Booklet Finisher, a Paper Jam Occurs with only the Front Cover Delivered

Cause:

When performing booklet folding, the folding roller holds the folds on the paper stack from top and bottom, and delivers it while folding the paper at the center.

During this time, the front cover is delivered by the friction between the folding roller and paper, while other sheets are delivered by the friction between them.

However, the friction between the sheets (A) is weak for paper with high image density, such as those with solid fills, resulting in reduced power to deliver sheets other than the front cover. Consequently, paper slip occurs with the delivery of only the front cover while other sheets remain in the booklet tray, causing a paper jam (JAM618 or JAM 641).



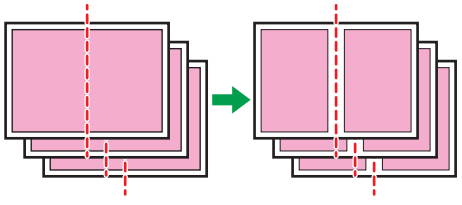
M0EDIC1379

Occurrence conditions:

- A high-image-density image (such as a solid fill) is on the folds of paper.
- Printing in a low temperature and low humidity environment.

Solution:

- Select magazine as the booklet folding type.
- Set the binding margin to 5 mm (0.2 inches) or longer. (Set the binding margin to 5 mm (0.2 inches) at the left on the front and 5 mm (0.2 inches) at the right on the back.)



M0EDIC1391

Punched Holes are Torn and a Paper Jam Occurs

Cause:

The holes are torn when punched, causing a paper jam.

Solution:

Turn the power off and then back on. Then check if the problem is resolved.

If the problem persists, contact the service representative.

Paper is Stained (Clean rollers and paper guides)

If paper with high image density is fed or the fusing is insufficient, the paper feed roller (driven roller) and paper guides may become stained with toner, causing stains on paper.

Clean the paper feed roller (driven roller) and paper guides.

"173 Finisher: Shift Tray Paper Path 1", Regular Maintenance Guide

"175 Finisher: Staple Paper Path 1", Regular Maintenance Guide

Interposer

Paper Misfeeds or Double-Feeding Occurs

Cause:

If special paper is fed or fed in a different condition from general paper when generic settings are applied, it may cause paper misfeeds or double-feeding.

Occurrence conditions:

- Coated paper is set
- Paper with high smoothness is set
- Printing is done at low temperature or humidity
- Paper is severely curled

Solution:

1. **Measure the curl of the paper.**

   Load one sheet of paper on a flat surface, apply the scale to the leading edge of the paper, and measure the curl at the four edges. The maximum value is the curl value.

2. **Is the paper curl within the curl standard?**

   Acceptable curl amount varies depending on the basic weight of the paper.

Paper weight	Curl amount
Paper Weight 0 - 6	Face curl: 10 mm (0.4 inches) Back curl: 10 mm (0.4 inches)
Paper Weight 7	Face curl: 10 mm (0.4 inches) Back curl: 5 mm (0.2 inches)
Paper Weight 8	Face curl: 10 mm (0.4 inches) Back curl: 3 mm (0.1 inches)
Paper Weight 9	Face curl: 10 mm (0.4 inches) Back curl: 0 mm (0 inches)

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

3. **Place the curled surface down on a flat surface. Hold the end of the paper and straighten it in the opposite direction to the curl direction so that the paper is rounded.**
4. **Check if the curl has been reduced.**

Yes	Finished!
No	Go to the next step.

5. **Fanning the paper.**

   For details, see page 89 "Fanning the Paper".

Yes	Finished!
No	Go to the next step.

6. **Check if the curl has been reduced.**

Yes	Finished!
No	Go to the next step.

7. **In [Detailed settings] for custom paper, adjust the fan level in 1351-02: [Fan Level].**
8. **Check if the curl has been reduced.**

Yes	Finished!
No	If the problem persists, repeat Step 7. If the problem still persists, feed one sheet of paper at a time.

Horizontal Streaks Occur When Loading a Full-Page, Solid-Fill Sheet

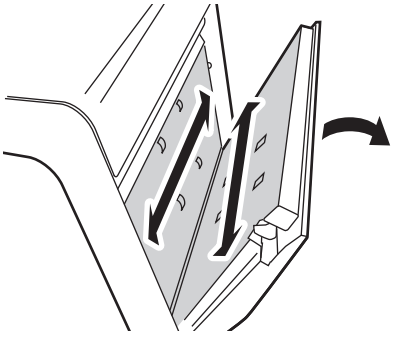
Cause:

Due to the sheets that have been fed, paper dust accumulates, and can come into contact with the sheets, causing thin scratches parallel to the paper feed direction (horizontal streaks).

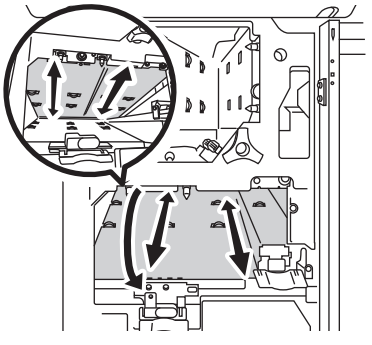
This is prone to occur especially when printing full-page solid-fill sheets.

Solution:

Clean the paper guides (in the two areas as shown below).



M0EDIC1389



M0EDIC1388

Wipe the paper guides with a soft dry cloth.

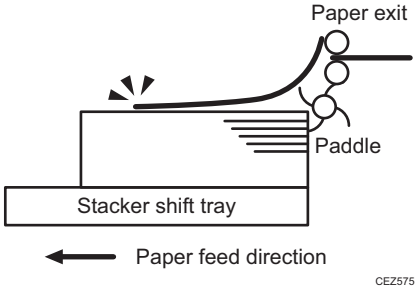
If the stain cannot be removed with a dry cloth, wipe with a cloth dampened with water and wrung well. Then wipe with a dry cloth until no moisture remains.

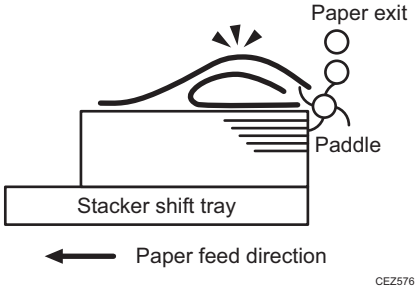
High Capacity Stacker

Sheets Are Curled

Cause:

With sheets that are curled downward and sheets that are not curled, the leading edge of the sheet being delivered rubs against the top sheet of the stack, there being no air gap between the sheets, and the sheet being delivered is therefore prone to get stuck. Consequently, the trailing edge of the sheet being delivered is left in the paper exit, and the next sheet to be delivered slips under the sheet still in the paper exit and bends back.





Occurrence conditions:

- A4 or larger coated paper weighing up to 135 g/m^2 (50 lb. Cover) is used.
- When using thin paper with a thickness of 1.

Solution:

Straighten out the sheet.

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.

3. **In [Detailed settings] for the custom paper, select 1311: [Correct Paper Curl], and then specify "Π Curl Correction Level: Small".**
4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

5. **In [Detailed settings] for the custom paper, select 1311: [Correct Paper Curl], and then specify "Π Curl Correction Level: Large".**
6. **Print the image. Are the problems of trailing edge remaining and curling resolved?**

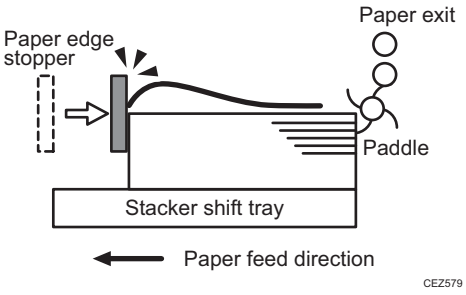
Yes	Finished!
No	Go to the next step.

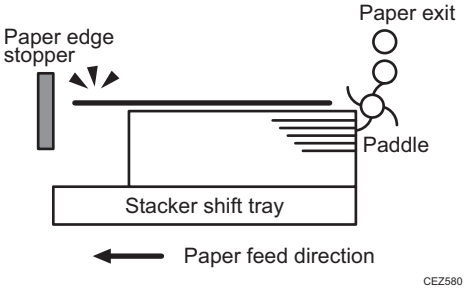
7. **Is the paper curled downward?**

Yes	Cannot be solved by this flow.
No	Load the sheets the other way up again, and then repeat Step 3 to 6. If the problem still persists, contact your service representative.

Sheets Are Not Aligned

The trailing edge of the sheets delivered to the stacker tray are aligned by the paddle. If the delivered sheets are flat, the friction at the trailing edge increases and affects the alignment of the sheets parallel to the paper feed direction. Also, when the leading edge stopper stops the leading edge of paper, the paper may be stopped with the leading edge protruding, resulting in horizontal misalignment when stacked.





Occurrence conditions:

- Paper with thickness of Paper Weight 1 (52.3 to 63 gsm) in low temperature and humidity environments
- Upward curl

Solution:

Straighten out the sheet.

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.

3. **In [Detailed settings] for the custom paper, select 1311: [Correct Paper Curl], and then specify "П Curl Correction Level: Small".**

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

Yes	Finished!
No	Go to the next step.

5. **In [Detailed settings] for the custom paper, select 1311: [Correct Paper Curl], and then specify "Π Curl Correction Level: Large".**
6. **Print the image. Are the problems of trailing edge remaining and curling resolved?**

Yes	Finished!
No	Go to the next step.

7. **Is the paper curled downward?**

Yes	Cannot be solved by this flow.
No	Load the sheets the other way up again, and then repeat Step 3 to 6. If the problem still persists, contact your service representative.

The Machine Wrongly Detects That the Tray Is Full

Cause:

The edge of the paper is close to the paper height sensor feeler, so if it has side face-up curl, the edge of the paper may fail to go under the paper height sensor feeler and ride up on the feeler. As a result, even if the shift tray lowers, the paper height sensor will fail to turn OFF, the lowering time of the shift tray will end up exceeding 650ms, and the unit will end up detecting it is full.

Occurrence conditions:

- Paper with a width of 191–261 mm (7.6-10.4 inches) is being used.

Solution:

1. **Check if the paper width is within the range of 191 mm to 261 mm (7.5 inches to 10.3 inches).**

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

2. **Check for side upward curls.**

Yes	Go to the next step.
No	Not possible to resolve the problem

3. **Load the sheets the other way up.**
4. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

5. **In [Detailed settings] for the custom paper, set 1311: [Correct Paper Curl] to [Off].**
6. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

7. **In [Detailed settings] for the custom paper, set 1311: [Correct Paper Curl] to [U Curl Correction Level: Small].**
8. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

9. **In [Detailed settings] for the custom paper, set 1311: [Correct Paper Curl] to [U Curl Correction Level: Large].**
10. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

11. **In [Detailed settings] for the custom paper, set 1311: [Correct Paper Curl] to [Π Curl Correction Level: Small].**
12. **Print the image. Has the problem been resolved?**

Yes	Finished!
No	Go to the next step.

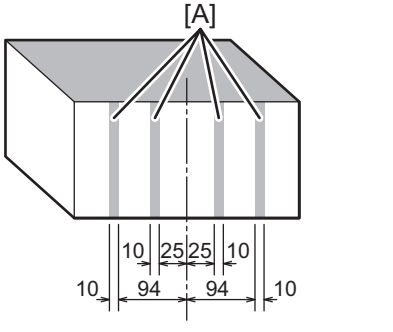
13. **In [Detailed settings] for the custom paper, set 1311: [Correct Paper Curl] to [Π Curl Correction Level: Large].**

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

Yes	Finished!
No	Cannot be solved by this flow.

Paper Edges Are Stained

The leading edge of paper is stained [A] for a width of 10 mm (0.4 inches) at the area 25 mm (0.1 inches) and 94 mm (3.7 inches) away from its center.



Cause:

The paper feed roller is stained with toner.

The entrance roller, which provides the path for the shift tray and proof tray, is especially prone to get stained.

Solution:

For information on cleaning the paper feed rollers, see "249 First Stacker: Paper Path 1/ 252 Second Stacker: Paper Path 1", Regular Maintenance Guide.

9. Advanced Instructions

Notes When Continuously Performing Black-and-White and in Color Printing

When printing intermixed black-and-white and full-color print jobs, switching from full-color mode to black-and-white mode takes time, causing loss of throughput each time the mode is switched.

When the machine prints a full-color print job followed by a black-and-white job, you can improve throughput by adjusting the number of black-and-white sheets the machine prints in full-color mode before switching to black-and-white mode.

Because switching color modes takes time, increasing the amount of sheets before modes are switched will improve throughput.

1. **In the 04: [Machine: Productivity] group on the [Operator Adjust.] menu, change the value in 0401: [Number of Sheets for Auto Color Selection].**

   Optimize the amount of sheets for your operating environment.

Value	Behavior
0 (Invalid)	Even black-and-white print jobs are printed in full color mode without switching to black-and-white mode. Although throughput is improved by this, the cyan, magenta and yellow development units are used for black-and-white printing, resulting in a shortened replacement cycle of the development unit.
1 (Minimum)	Full color mode switches to black-and-white mode after 1 full color sheet is printed in full color mode. The second and subsequent black-and-white sheets are printed in black-and-white-mode. Although throughput is not improved by this setting, the cyan, magenta, and yellow development units are not used for black-and-white printing, resulting in an extended replacement cycle of the development unit.
10 (Maximum)	Full color mode switches to black-and-white mode after 9 black-and-white sheets are printed in full color mode. The tenth and subsequent black-and-white sheets are printed in black-and-white-mode. The mode does not switch if there are fewer than 10 black-and-white sheets, resulting in improved throughput.

Note

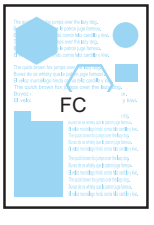
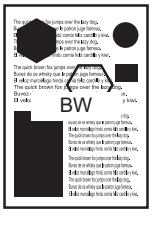
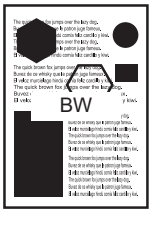
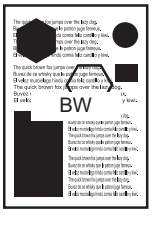
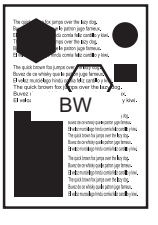
- When black-and-white print jobs are printed in full color mode without switching to black-and-white mode, the cyan, magenta and yellow development units are used for black-and-white printing, resulting in a shortened replacement cycle of the Photoconductor unit.
- When black-and-white printing is performed after full color printing, full color mode is always enabled as color printing cannot be performed in black-and-white mode.

Configuration Examples

This section gives examples of changing the value in 0401: [Number of Sheets for Auto Color Selection].

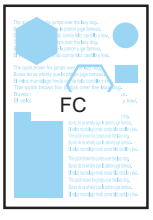
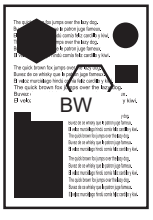
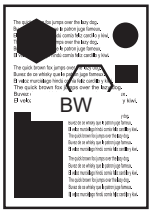
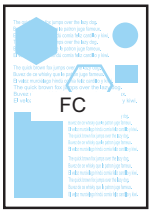
Example 1: Printing a job with a full-color (FC) original on Page 1 and black-and-white (BW) originals on Pages 2 to 5

- If set to "1", the mode switches at Page 2. Even if set to "2" to "4", the throughput is the same, but unnecessary operation of the color development unit is involved, so it is recommended to set the value to "1".
- If set to "0", "5", or higher, the throughput is better than when set to "1" to "4", but the replacement cycle of the development unit is shortened.

	Page 1	Page 2	Page 3	Page 4	Page 5
Original Type					
Value	Color Mode				
0	FC	FC	FC	FC	FC
1	FC	**BW**	**BW**	**BW**	**BW**
2	FC	FC	**BW**	**BW**	**BW**
3	FC	FC	FC	**BW**	**BW**
4	FC	FC	FC	FC	**BW**
5	FC	FC	FC	FC	FC

Example 2: Printing a job with a full-color (FC) original on Pages 1 and 4, and black-and-white (BW) originals on Pages 2, 3, and 5

- If set to "1", the mode switches at Pages 2, 4, and 5, reducing throughput.
- If set to "0", "3", or higher, the mode does not switch, improving throughput.

	Page 1	Page 2	Page 3	Page 4	Page 5
Original Type					
Value	Color Mode				
0	FC	FC	FC	FC	FC
1	FC	**BW**	**BW**	FC	**BW**
2	FC	FC	**BW**	FC	FC
3	FC	FC	FC	FC	FC

MEMO