PDF Direct Print

User Manual

(CL4NX/CL6NX/CL4NX Plus/ CL6NX Plus/ S84NX/S86NX)

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About This Manual

Thank you for using the SATO PDF Direct Print.

This document is intended for users who want to know how to configure SATO printers with PDF Direct Print function or system integrators who want to develop a solution that can send PDF data from their system and directly print the PDF data without graphics conversion on SATO printers with PDF Direct Print function.

This document describes only the information and instructions related to PDF Direct Print. For more details on other printer operations and settings, please refer to each printer's operator manual.

☞Click the link below for the CL4NX/CL6NX operator manual.

https://www.manual.sato-global.com/printer/cl4nx_cl6nx/main/index.html

☞Click the link below for the CL4NX Plus/CL6NX Plus operator manual.

https://www.manual.sato-global.com/printer/clnxplus/main/index.html

☞Click the link below for the S84NX/S86NX operator manual.

https://www.manual.sato-global.com/printer/s8nx/en/main/index.html

Symbols

This document uses the following symbols:

Item	Description
Caution	The Caution symbol indicates potential risks or actions that may lead to software malfunction, data loss, errors, or unexpected behavior if not followed correctly.
Note	The Note symbol indicates useful and supplemental information that you should know.
Reference	The Reference symbol indicates the link of relevant information.

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- Great care has been taken in the preparation of this document, but if any problems, mistakes, or omissions are found, please contact your SATO reseller or technical support center.

- This manual uses the build version 1.13.7-u668_r2 firmware in its descriptions. (CL4NX/CL6NX/CL4NX Plus/CL6NX Plus)
- This manual uses the build version 8.1.0-u739_r6 firmware in its descriptions. (S84NX/S86NX)

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Software Updating Disclaimer

While all efforts have been taken to ensure the accuracy and currency of the information contained herein, there are instances where the contents of this document may be outdated. In that case, proceed to your local SATO regional website (https://www.sato-global.com/drivers/redirect.html) to check whether an updated document has been made available for your reference.

Introduction

Overview

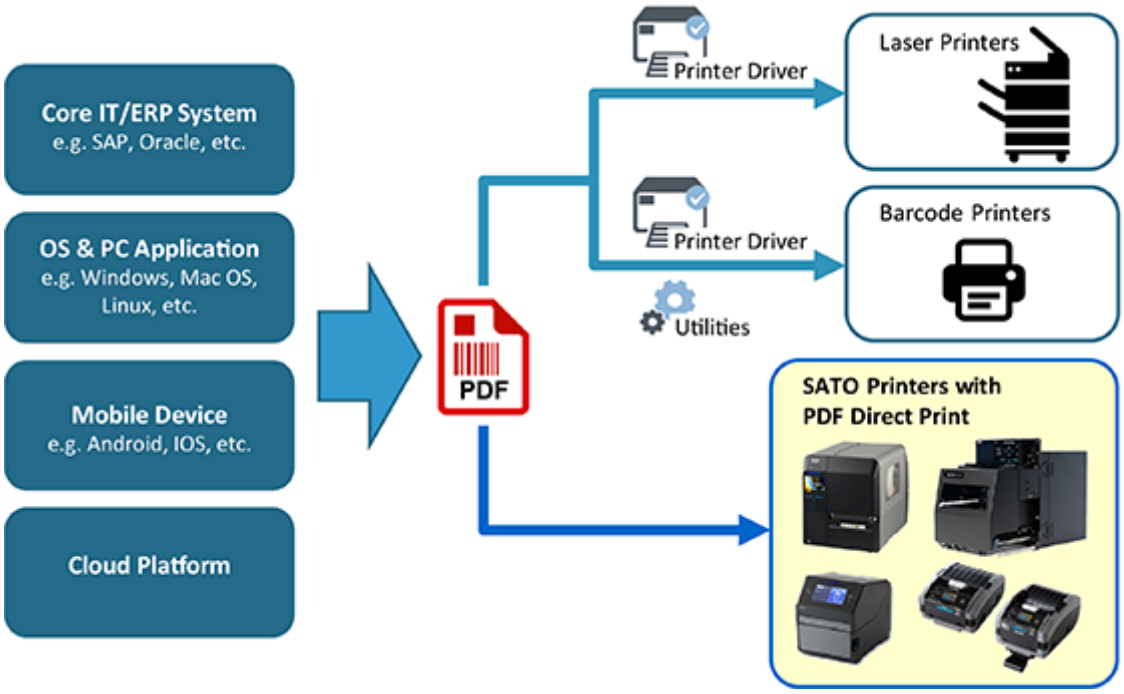
This document is intended for users who want to know how to configure SATO printers with PDF Direct Print function or system integrators who want to develop a solution that can send PDF data from their system and directly print the PDF data without graphics conversion on SATO printers with PDF Direct Print function.

About PDF Direct Print

PDF data becomes a standard document format for most of the ERP system, OS and PC applications, etc. However, when printing PDF data on most of the barcode printers, it requires a printer driver or custom software that converts PDF to graphic for printing.

SATO PDF Direct Print is the solution implemented as a special firmware installed on the printer. It allows users to print PDF files directly to the SATO printers without using any printer driver, utilities, middleware or application installed to the system.

It provides a cost-effective, secure, simple and reliable direct printing solution.



Supported Printers and Interfaces

The supported printer models of this function are CL4NX, CL6NX, CL4NX Plus, CL6NX Plus, CT4-LX, PW208NX, PW208mNX and S84NX/S86NX.

Users can send PDF data via any available interface of the supported printers, such as LAN, WLAN, USB, Bluetooth, etc.

Features

The features of SATO PDF Direct Print include:

Multilingual fonts and typefaces

PDF Direct Print supports all languages available in PDF and uses fonts embedded in the PDF file to prevent text garbling.

PC-less printing

PDF Direct Print resides in the printer memory and processes data internally. Thus, saving cost, space and time by eliminating the need to manage additional devices.

Split print feature

Split the PDF document into multiple images and print them individually.

Layout Adjustment

Enables quick and easy changes to the orientation of data and the avoidance of any blank spaces.

High Speed and Quality

PDF Direct Print generates clear and precise fonts and barcodes and controls color density alongside a high-speed internal processor to ensure high and consistent throughput.

Multiple Interfaces

PDF Direct Print supports every commonly used printer communication interface, including Wireless LAN, USB and Bluetooth, enabling flexible use across any business environment.

Cutter Options (For CL4NX/CL6NX/CL4NX Plus/CL6NX Plus only)

Users can set to cut the label after a specified number of printouts printed from a single data source.

SATO AEP

SATO AEP (Application Enabled Printing) enables more sophisticated operations through the use of API.

Getting Started

Installation

There is no need for users to perform the firmware installation as the printer comes with the special firmware installed after purchasing the PDF Direct Print.

In the event of printer replacement, SATO technical support personnel will install the firmware and enable the PDF Direct Print function on the new printer.

- Installation of PDF direct print firmware should be performed by SATO technical support personnel.

License Activation

The PDF Direct Print license is initially activated on the printer if the user has already purchased the license. A license activation key is required to perform the activation.

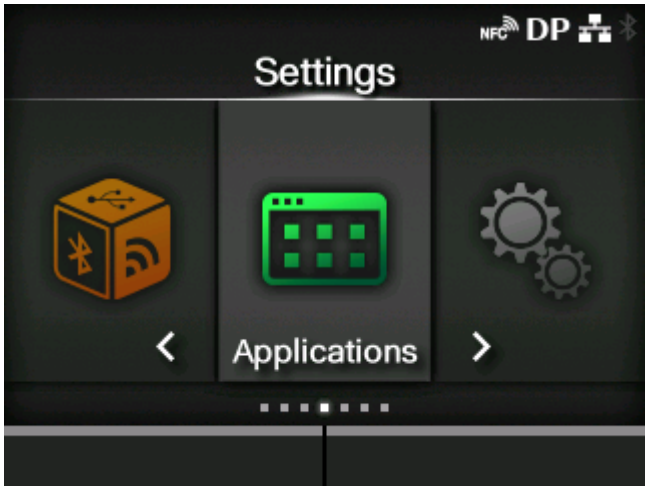
If the license is not activated, the PDF Direct Print will be running on Demo mode.

- The license activation should be performed by SATO technical support personnel.
- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

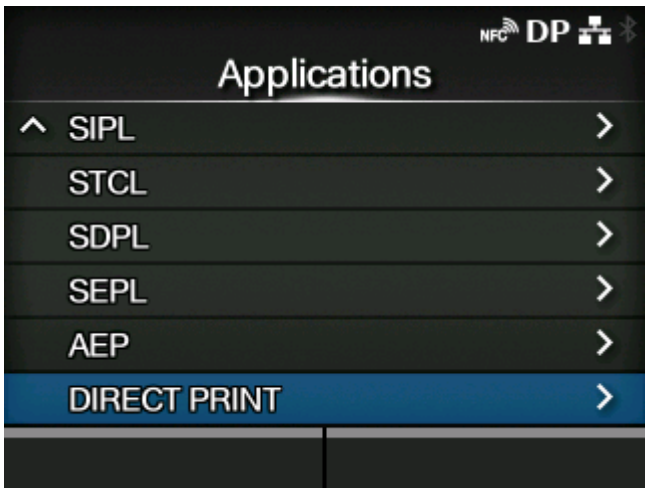
The license activation procedure intended for SATO technical support personnel is as follows:

1. **When the printer is in Online mode, press the ⏯ button to change to Offline mode.**
2. **Press the ↵ button to show the [Settings] mode.**

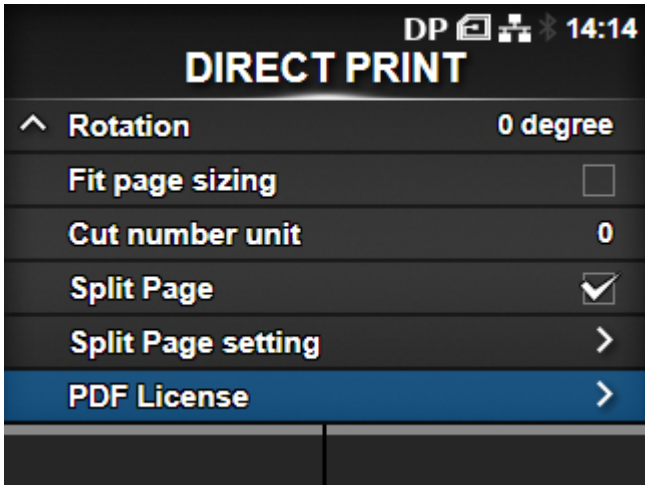
3. **Select [Applications] using the ◀/▶ buttons, then press the ↵ button.**



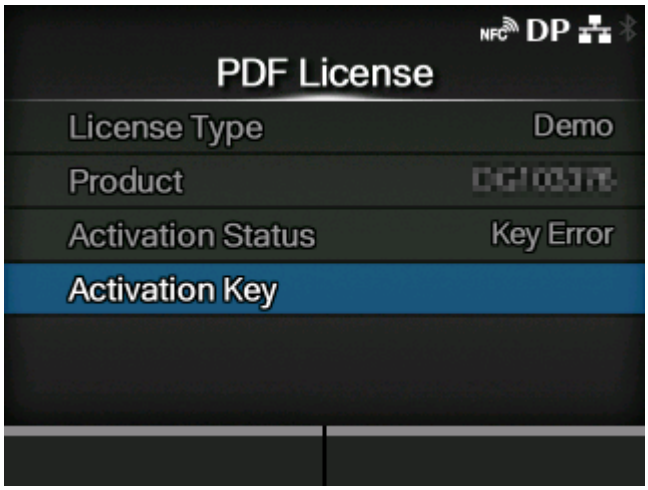
4. Select [DIRECT PRINT] using the ▲/▼ buttons, then press the ↵ button.



5. Select [PDF License] using the ▲/▼ buttons, then press the ↵ button.

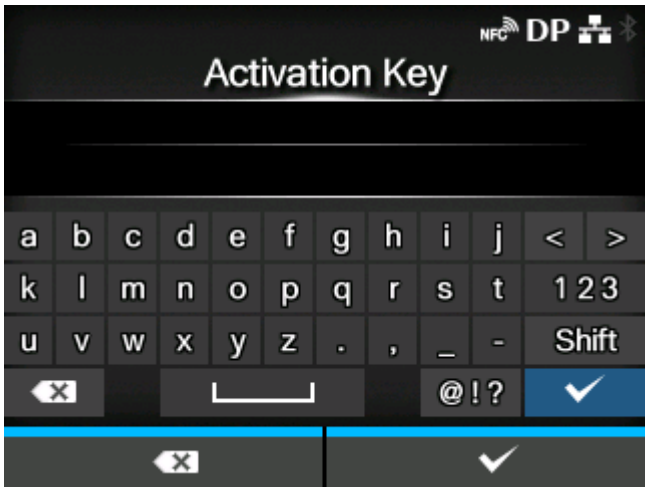


6. Select [Activation Key] using the ▲/▼ buttons, then press the ↵ button.



7. Enter the license activation key. Select a character using the ◀/▶/▲/▼ buttons, then press the ↵ button to enter the character on the text box.

The activation key is an 8-digit number issued by the license management server.



8. Press the / button to select to save the entered activation key.

The [Activation Status] will show [Activated] if the activation key matches.

- [License Type], [Product] and [Activation Status] are read-only.
- The initial [License Type] is [Demo] and the [Activation Status] shows [Not Activated].
- The [Activation Status] will show [Key Error] if the activation key does not match.

Initial Printer Settings

- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

To print the PDF data properly, you need to perform the following initial printer settings:

1. Make sure that the PDF direct print mode is enabled.

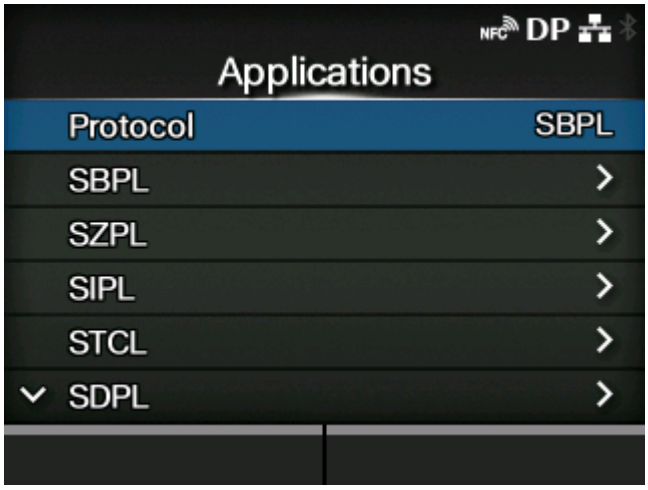
After the PDF Direct Print firmware is installed on the printer, the direct print mode is enabled by default.

The **DP** (Direct Print) status icon is shown on the status bar at the top of the display.

If the **DP** status icon is not shown, you can enable the direct print mode in the [Settings] > [Applications] > [DIRECT PRINT] menu. Select [Enable] to show the [Enable] menu and select [Enabled].

2. Set the print language to SBPL.

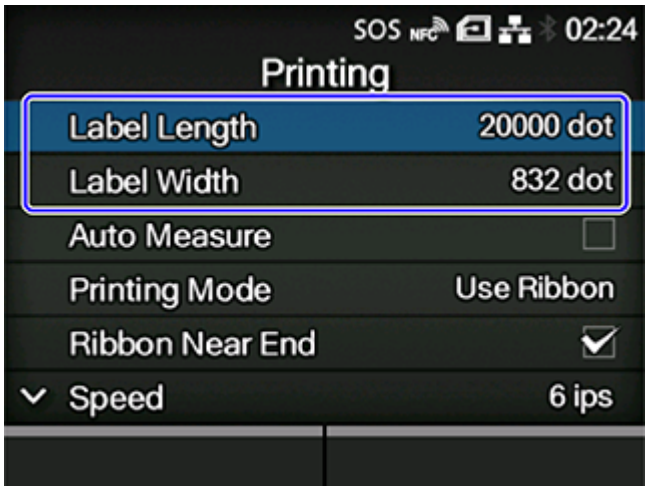
PDF Direct Print only works on SBPL (SATO Barcode Printer Language) protocol. You need to set the printer language to SBPL in the [Settings] > [Applications] > [Protocol] menu.



- Do not set the [Protocol] to [AUTO].

3. Set the label size.

Set the length and width of the label in the [Settings] > [Printing] > [Label Length] and the [Settings] > [Printing] > [Label Width] menus.



- The Auto Measure function is not recommended to be used for PDF direct print. Disable the [Auto Measure] and set the [Label Length] and [Label Width] of the label accordingly.

4. Set other printer settings to match the label.

Set the following printer settings based on the label used.

- [Settings] > [Printing] > [Printing Mode]
- [Settings] > [Printing] > [Speed]
- [Settings] > [Printing] > [Sensor Type]
- [Settings] > [Printing] > [Darkness]

- Please refer to the CL4NX/CL6NX operator manual, CL4NX Plus/CL6NX Plus operator manual or S84NX/S86NX operator manual for more detailed information.

  Click the link below for the CL4NX/CL6NX operator manual.

  https://www.manual.sato-global.com/printer/cl4nx_cl6nx/main/index.html

  Click the link below for the CL4NX Plus/CL6NX Plus operator manual.

  https://www.manual.sato-global.com/printer/clnxplus/main/index.html

  Click the link below for the S84NX/S86NX operator manual.

  https://www.manual.sato-global.com/printer/s8nx/en/main/index.html

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Sending PDF Data to Printer

You need to set up the connection between your source (i.e. core IT system, PC application, mobile device, cloud, etc.) and the printer via the supported connectivity. The available interfaces (LAN, WLAN, USB, Bluetooth, RS-232C, IEEE 1284 and others) are depending on the printer.

Supported Print Data

- The PDF Direct Print function enables you to print documents and graphic data without using printer commands such as SBPL commands. The supported document format is PDF.
- Make sure that the font data is embedded in the PDF file. Otherwise, the data might not be printed correctly due to the printer will substitute the original font with its internal font.
- Do not use outlined PDF data as this will result in a larger file size. Recommended using PDF data (ISO 32000-1) that is not outlined.
- The maximum available file size that can be sent depends on the printer’s memory. The recommended PDF file size is less than 50 MB.

Various Printout Settings

Rotating the Page Orientation

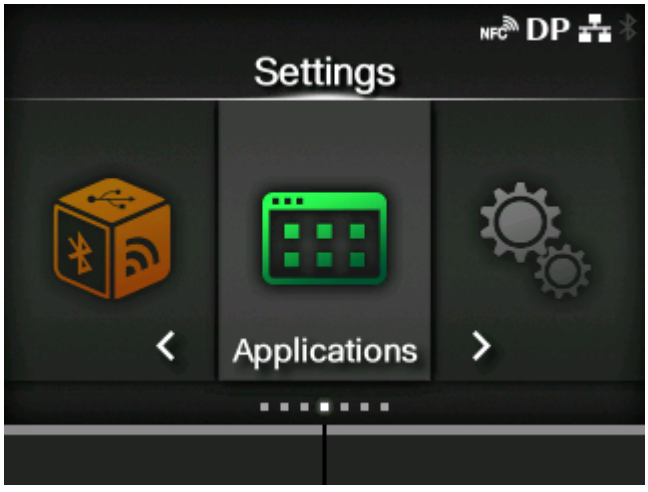
- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

You can specify the rotating angle of the page orientation for PDF direct printing.

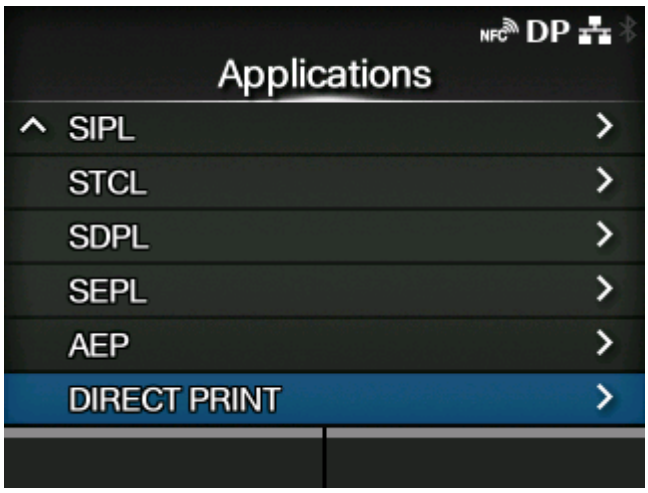
The setting procedure for rotating the page orientation is as follows:

1. **When the printer is in Online mode, press the ⏯ button to change to Offline mode.**
2. **Press the ↵ button to show the [Settings] mode.**

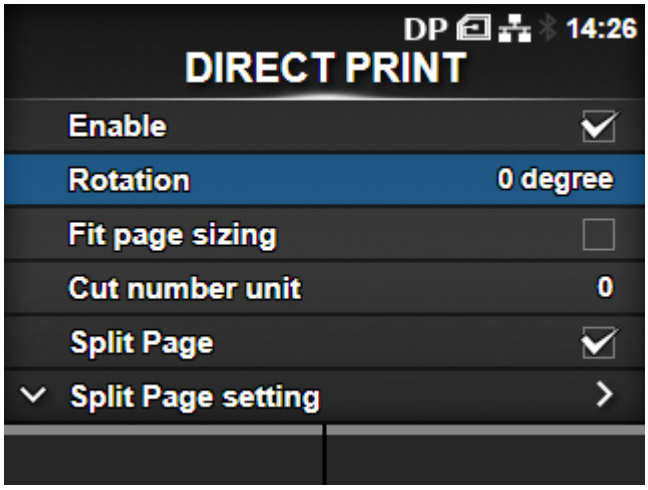
3. **Select [Applications] using the ◀/▶ buttons, then press the ↵ button.**



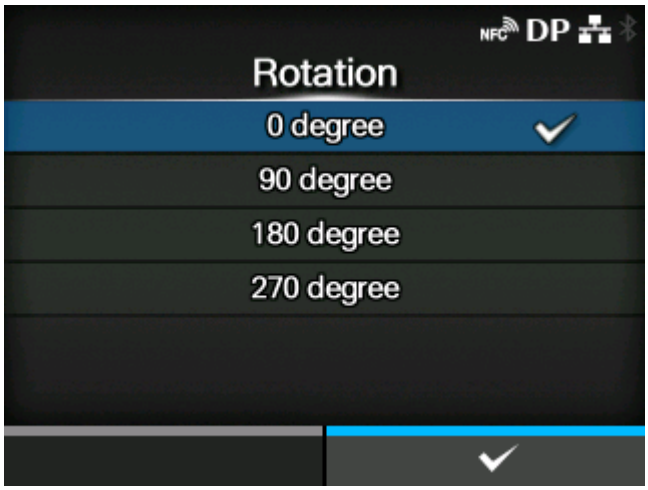
4. **Select [DIRECT PRINT] using the ▲/▼ buttons, then press the ↵ button.**



5. **Select [Rotation] using the ▲/▼ buttons, then press the ↵ button.**



6. **Select the rotating angle of the page orientation using the ▲/▼ buttons.**



The options are as follow:

[0 degree]

Prints the page without rotation.

[90 degree]

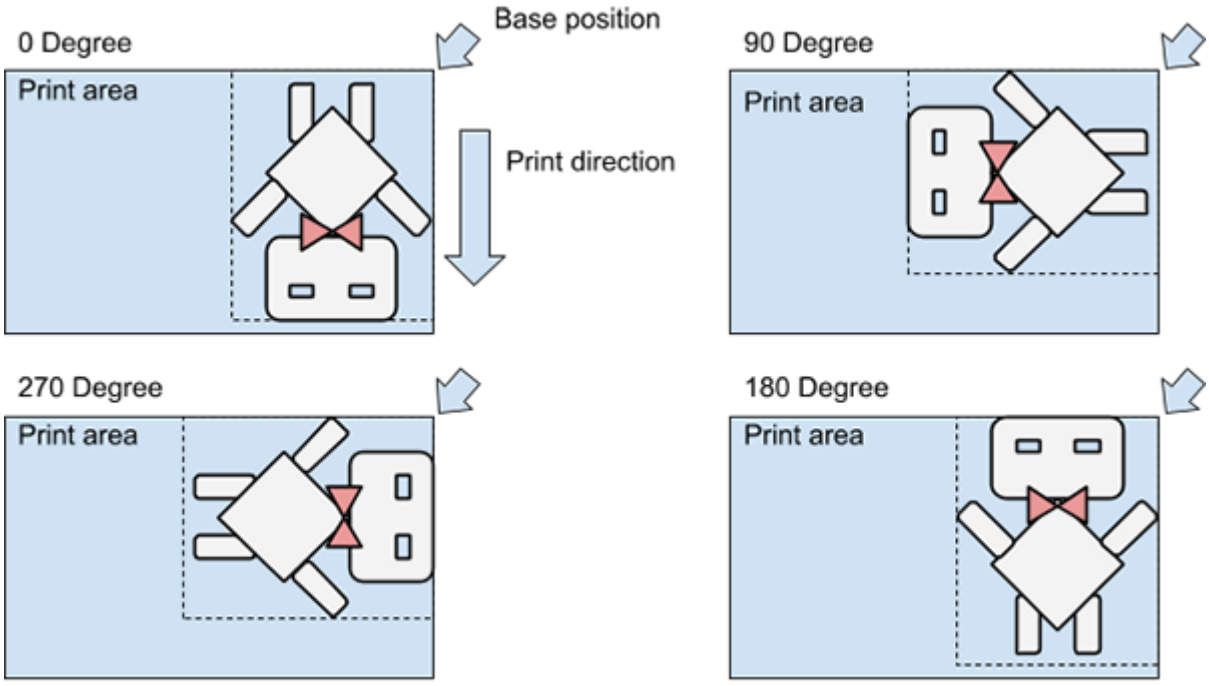
Rotates the page orientation 90 degrees clockwise.

[180 degree]

Rotates the page orientation 180 degrees.

[270 degree]

Rotates the page orientation 270 degrees clockwise.



7. **Press the / button or button to save the setting.**
8. **Press the button to change to Offline mode.**
9. **Press the button again to change to Online mode.**

You can print to check the page orientation.

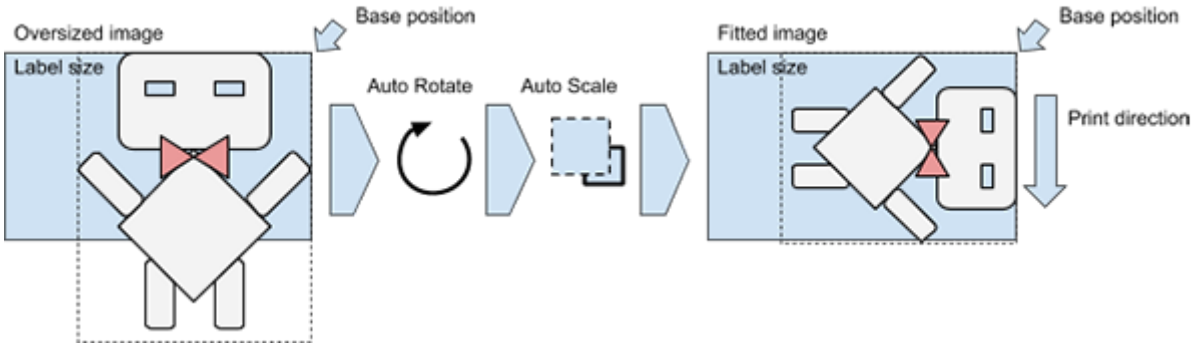
- The rotating angle cannot be set if the [Fit page sizing] is enabled.
- The initial setting of [Rotation] is 0 degrees.

Resizing the Image to Fit the Page

- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

By enabling the [Fit page sizing] function, the printer automatically rotates, enlarges or reduces the print image to best fit the label page size.

This function is convenient for correcting the cropped printout if the print image is too big for the label size, or removing the whitespace if the print image is too small for the label size.

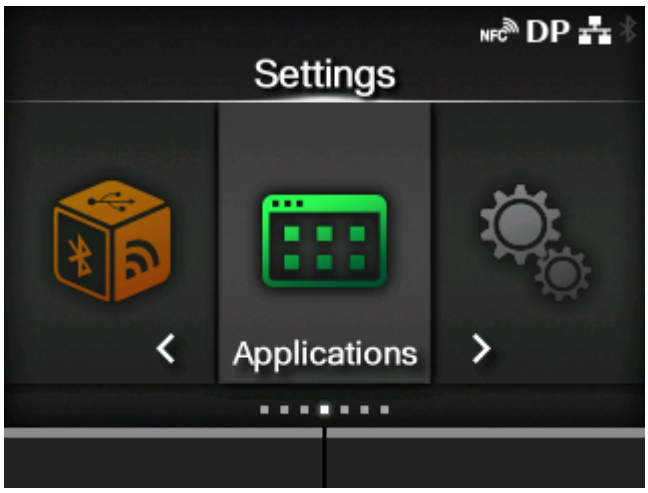


To enable this function, perform the following procedure.

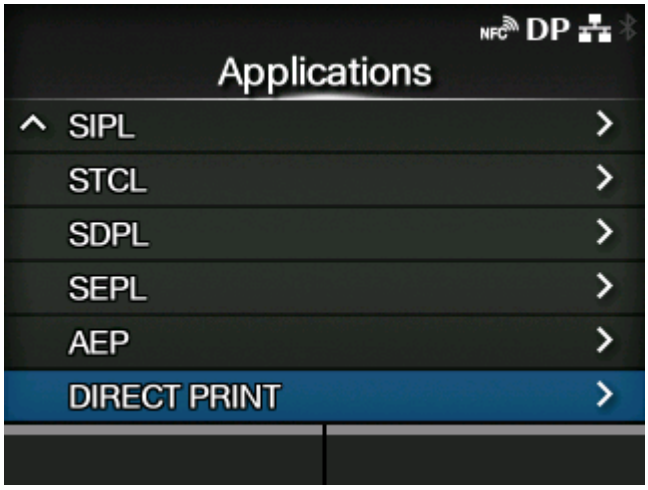
1. **When the printer is in Online mode, press the button to change to Offline mode.**

2. **Press the button to show the [Settings] mode.**

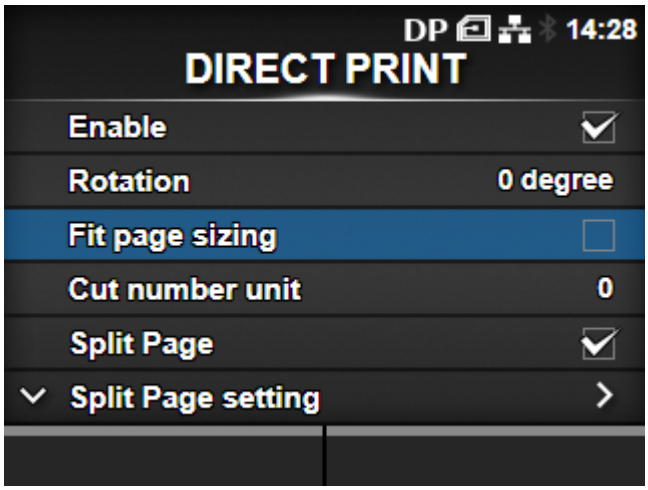
3. **Select [Applications] using the ◀/▶ buttons, then press the ↵ button.**



4. **Select [DIRECT PRINT] using the ▲/▼ buttons, then press the ↵ button.**

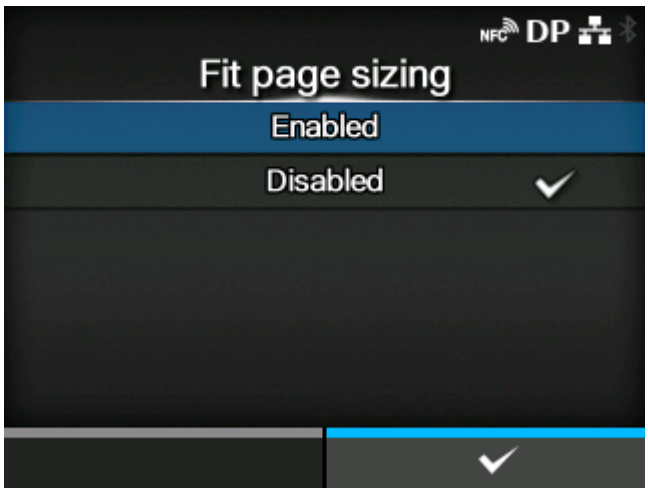


5. **Select [Fit page sizing] using the ▲/▼ buttons, then press the ↵ button.**



The [Fit page sizing] screen appears.

6. **Select [Enabled] using the / buttons.**



7. **Press the / button or button to save the setting.**

8. **Press the button to change to Offline mode.**

9. **Press the button again to change to Online mode.**

You can print to check the print image.

- When the [Fit page sizing] is enabled, the settings for the [Rotation] are invalid.
- The initial setting of [Fit page sizing] is disabled.

Specifying the Number of Labels Printed Before Cut (CL4NX/CL6NX/CL4NX Plus/CL6NX Plus)

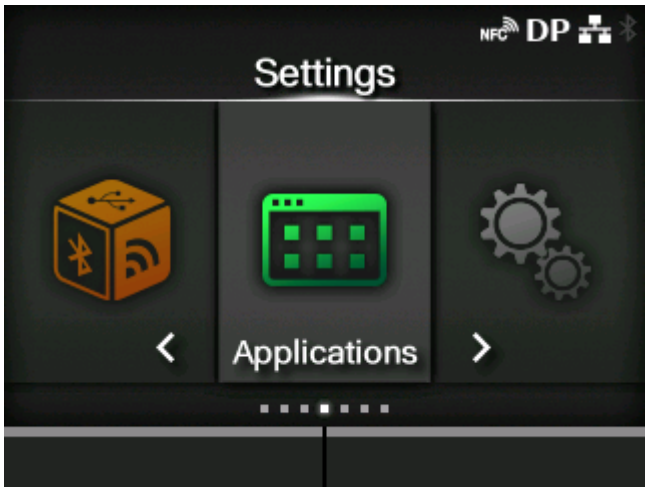
You can set to cut the label after the specified number of printouts are printed from a single data source.

- This function is not applicable to S84NX/86NX series printers.

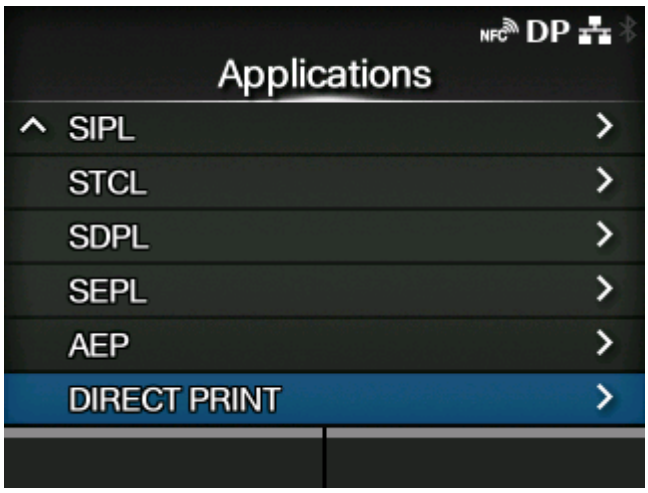
The setting procedure for specifying the [Cut number unit] is as follows:

1. **When the printer is in Online mode, press the button to change to Offline mode.**
2. **Press the button to show the [Settings] mode.**

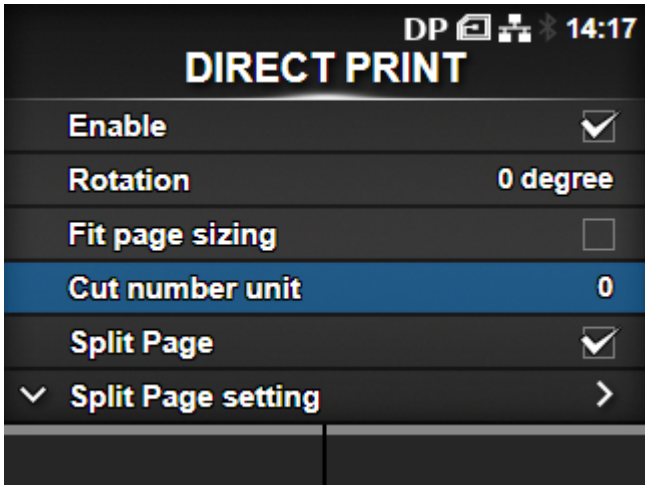
3. **Select [Applications] using the / buttons, then press the button.**



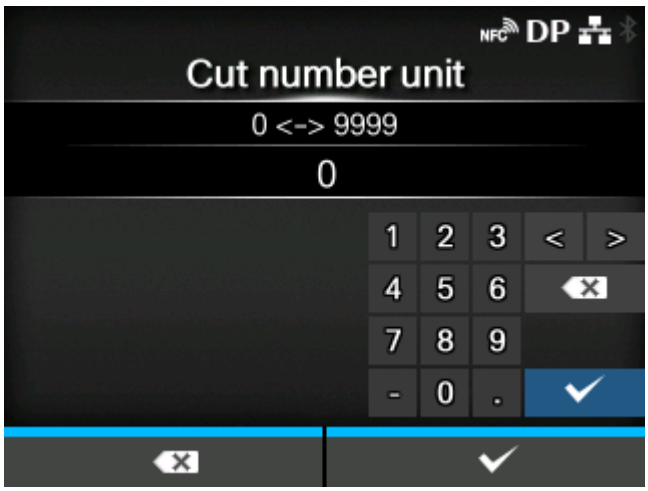
4. **Select [DIRECT PRINT] using the ▲/▼ buttons, then press the ↵ button.**



5. **Select [Cut number unit] using the ▲/▼ buttons, then press the ↵ button.**



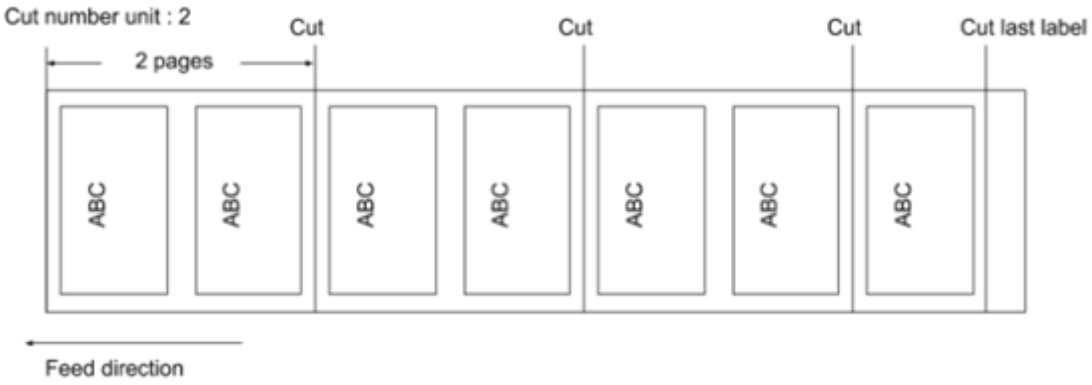
6. **Set the [Cut number unit] value. Select a number using the ◀/▶/▲/▼ buttons, then press the ↵ button to enter the number on the text box.**



The setting range of the [Cut number unit] is from 0 to 9999.

If 0 or 1 is set, the printer will print and cut for each printout.

The printer will cut the last printout of the print data regardless of the specified number of [Cut number unit] as shown in the diagram below.



7. **Press the button to save the value.**

8. **Press the button to change to Offline mode.**

9. **Press the button again to change to Online mode.**

You can print and check the cutting operation.

- This cutting feature only takes effect when the [Print Mode] is set as [Cutter], [Cut & Print], or [Partial cutter].
- The initial setting of [Cut number unit] is 0.
- If the split function is enabled, the maximum [Cut number unit] is set at 1.

Splitting Images to Print Individually

- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

By enabling the [Split Page] function, the printer can split the image of the PDF document and print them individually as shown below.

This function can also apply to the multiple pages PDF document.

If there is a blank split page, the printer will skip printing the blank label.

- If the printer operates on PDF Direct Print [Demo] mode, the printer will not skip printing the blank label.

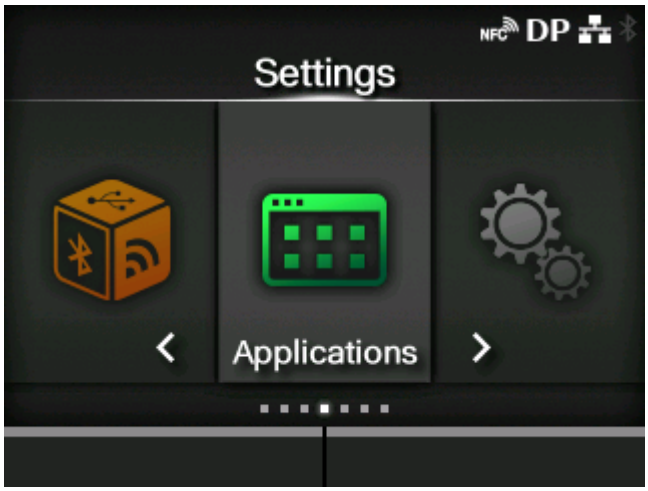
The number of split images, the print order, and the margins can be set in the [Split Page setting] menu.

To enable the [Split Page] function, perform the following procedure.

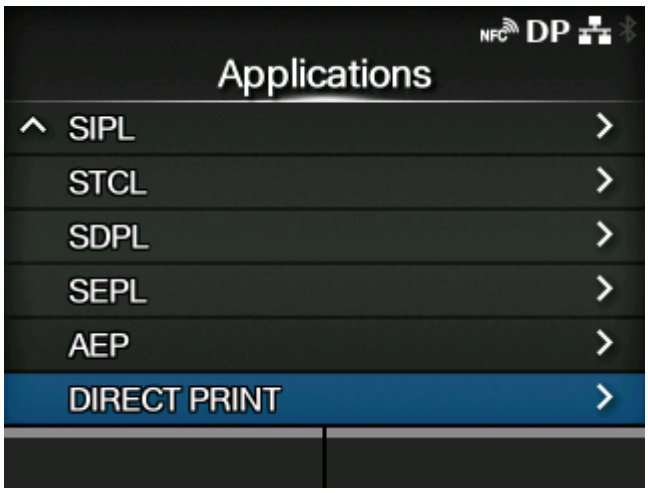
1. **When the printer is in Online mode, press the ⏯ button to change to Offline mode.**

2. **Press the ↵ button to show the [Settings] mode.**

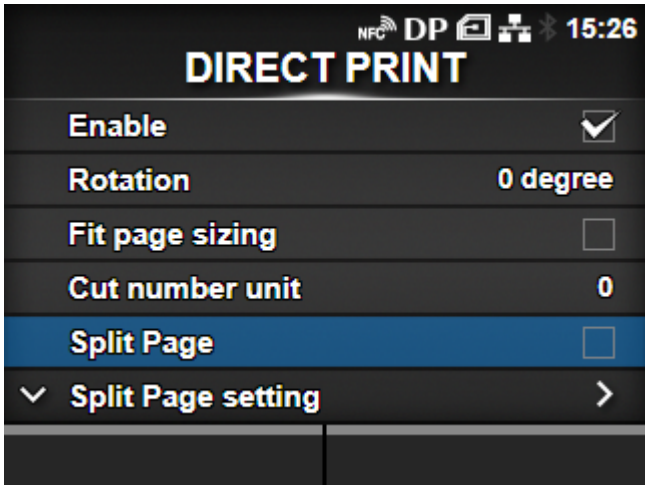
3. **Select [Applications] using the ◀/▶ buttons, then press the ↵ button.**



4. **Select [DIRECT PRINT] using the ▲/▼ buttons, then press the ↵ button.**

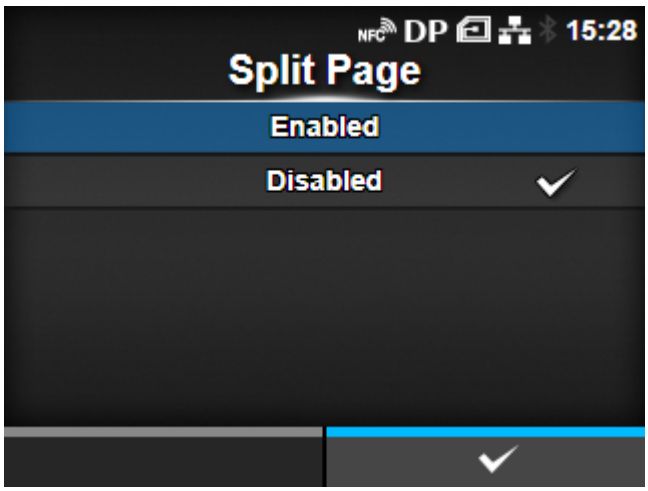


5. **Select [Split Page] using the ▲/▼ buttons, then press the ↵ button.**



The [Split Page] screen appears.

6. **Select [Enabled] using the ▲/▼ buttons.**



7. **Press the ◁/▷ button or ↵ button to save the setting.**

8. **Press the ▼ button to select [Split Page setting] for more settings of the split print function.**

   Refer to Configuring Split Page Settings.

9. **After configuring the [Split Page setting] items, send the PDF data to the printer for printing.**

- When the printer is processing the split print function, the split print icon is shown on the status bar at the top of the display.

Configuring Split Page Settings

Test Printing for Split Print Function

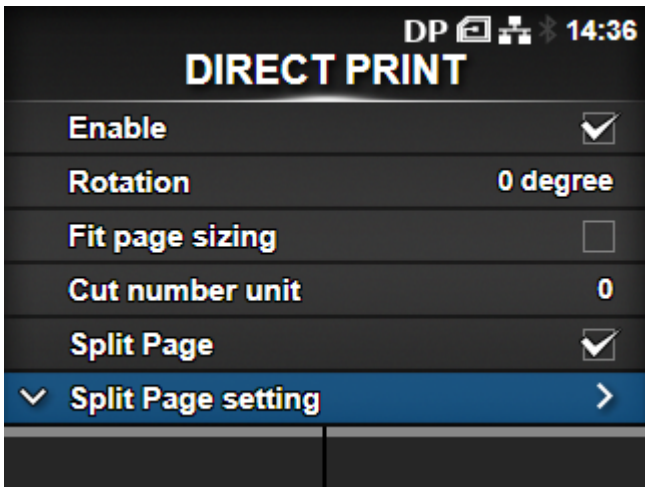
- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

By enabling the [Split test] mode, you can perform test printing for the split print function. When the PDF data is sent to the printer, only the split images of the first page of the PDF document are printed.

This is useful for checking the printout after configuring the items in the [Split Page setting] menu.

To enable the [Split test] mode, perform the following procedure.

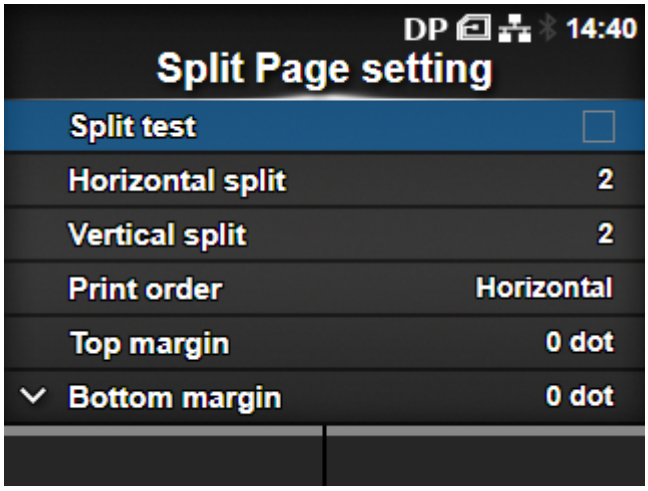
1. **In the [Settings] > [Applications] > [DIRECT PRINT] menu, select [Split Page setting] using the ▲/▼ buttons.**



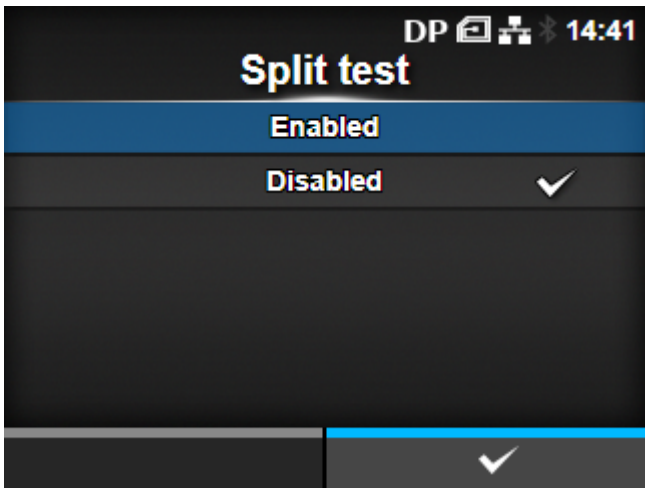
2. **Press the ↵ button.**

   The [Split Page setting] screen appears.

3. **Select [Split test] using the ▲/▼ buttons, then press the ↵ button.**

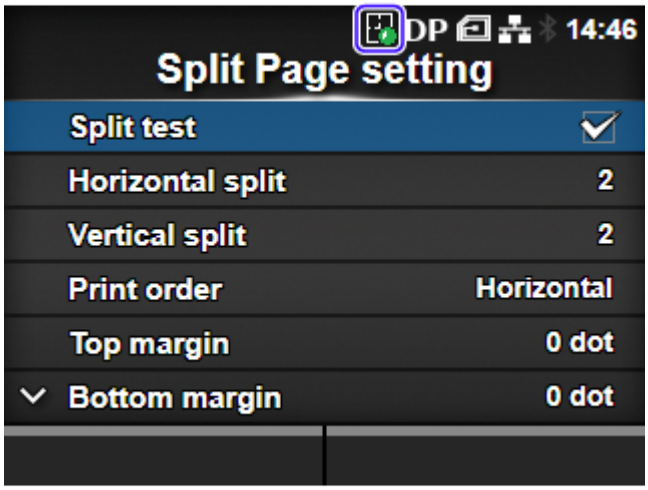


4. **Select [Enabled] using the / buttons.**



5. **Press the / button or button to save the setting.**

When the [Split test] mode is enabled, the split test icon is shown on the status bar at the top of the display.



6. **Send the PDF data to the printer for test printing.**

- After performing the test print, you must disable the [Split test] mode to resume back to the actual printing of the split print function.

Specifying the Number of Split Images

- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

You can specify the number of split images on the page of the PDF document with the [Horizontal split] and [Vertical split] settings in the [Split Page setting] menu.

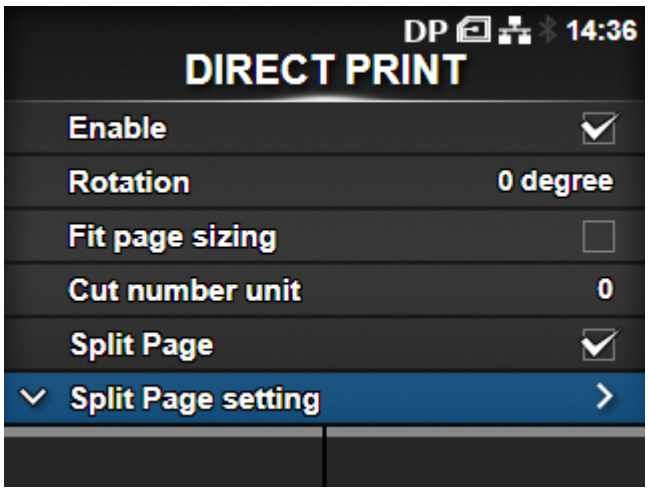
The [Horizontal split] specified the number of images to be split horizontally across the page.

The [Vertical split] specified the number of images to be split vertically down the page.

In this examaple,
Set the [Horizontal split] as 2.
Set the [Vertical split] as 5.

The setting procedure for specifying the number of split images is as follows:

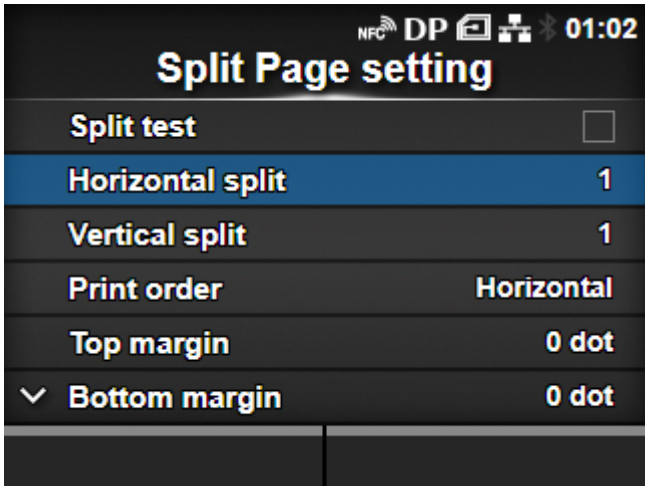
1. **In the [Settings] > [Applications] > [DIRECT PRINT] menu, select [Split Page setting] using the ▲/▼ buttons.**



2. **Press the ↵ button.**

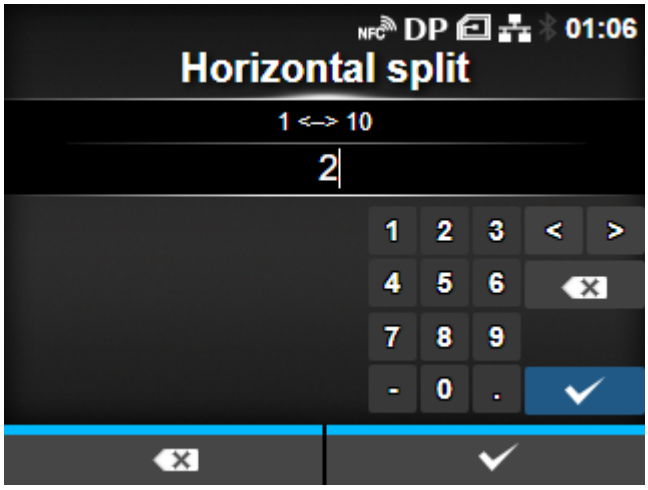
The [Split Page setting] screen appears.

3. **Select [Horizontal split] using the ▲/▼ buttons, then press the ↵ button.**



The [Horizontal split] screen appears.

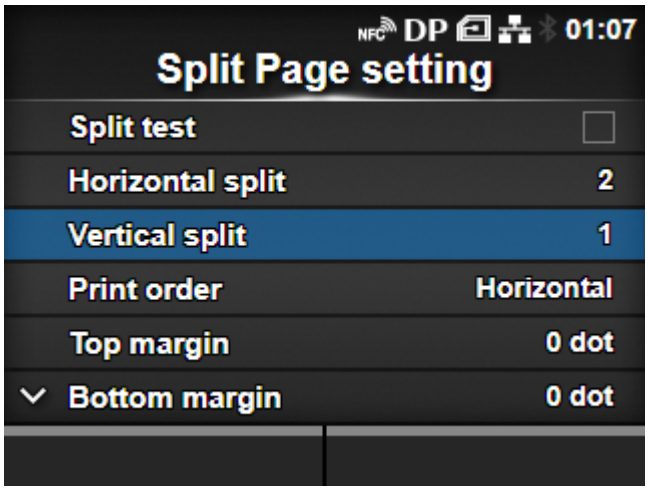
4. **Set the [Horizontal split] value. Select a number using the ◀/▶/▲/▼ buttons, then press the ↵ button to enter the number on the text box.**



The setting range of the [Horizontal split] is from 1 to 10.

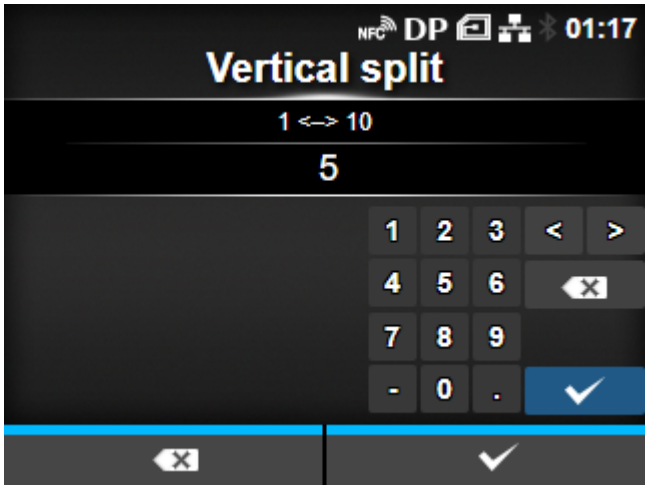
5. **Press the ▭/▭ button to save the value.**

6. **Select [Vertical split] using the ▲/▼ buttons, then press the ↵ button.**



The [Vertical split] screen appears.

7. **Set the [Vertical split] value. Select a number using the ◀/▶/▲/▼ buttons, then press the ↵ button to enter the number on the text box.**



The setting range of the [Vertical split] is from 1 to 10.

8. **Press the ▭/▭ button to save the value.**

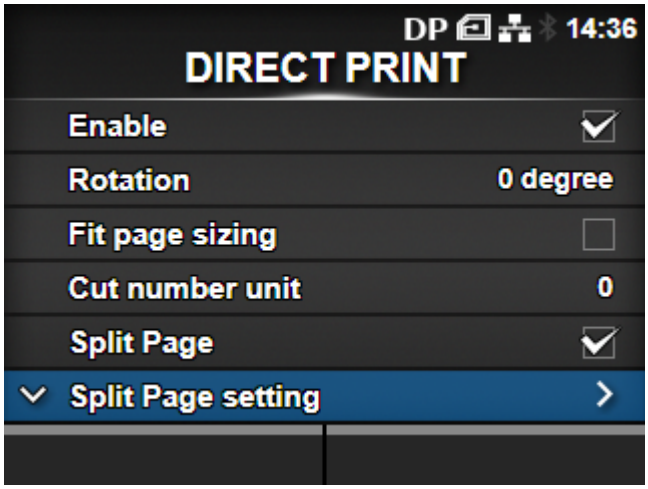
Setting the Print Order of the Split Images

- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

You can set the sequence of the split images to be printed out.

The setting procedure for the print order of the split images is as follows:

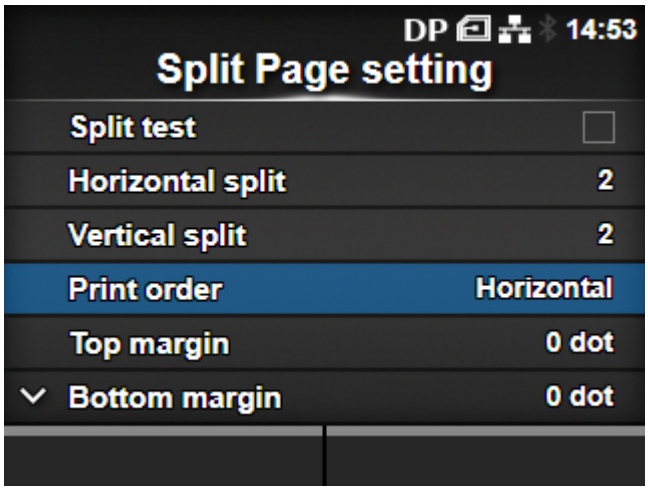
1. **In the [Settings] > [Applications] > [DIRECT PRINT] menu, select [Split Page setting] using the ▲/▼ buttons.**



2. **Press the ↵ button.**

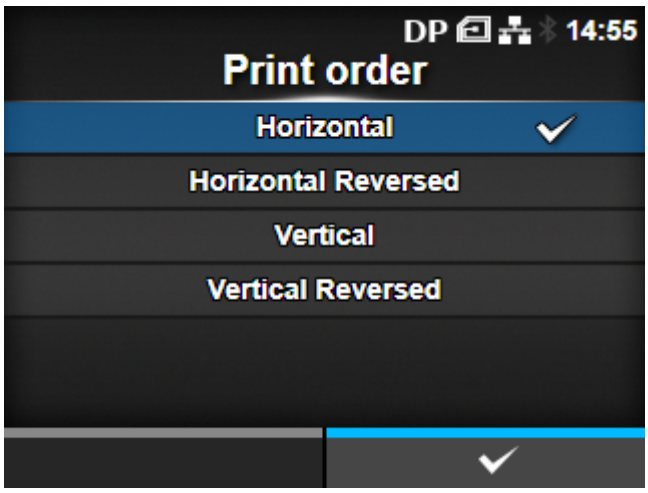
The [Split Page setting] screen appears.

3. **Select [Print order] using the ▲/▼ buttons, then press the ↵ button.**



The [Print order] screen appears.

4. **Select the printing sequence of the split images using the ▲ / ▼ buttons.**



The options are as follow:

[Horizontal]

The printing sequence of the split images is from top left to top right, then bottom left to bottom right.

[Horizontal Reversed]

The printing sequence of the split images is from top right to top left, then bottom right to bottom left.

[Vertical]

The printing sequence of the split images is from top left to bottom left, then top right to bottom right.

[Vertical Reversed]

The printing sequence of the split images is from top right to bottom right, then top left to bottom left.

- **Horizontal**
  1 → 2 → 3 → 4

- **Horizontal Reversed**
  2 → 1 → 4 → 3

- **Vertical**
  1 → 3 → 2 → 4

- **Vertical Reversed**
  2 → 4 → 1 → 3

5. **Press the** **/** **button or** **button to save the setting.**

Setting the Margins of the PDF Document for Split Print Function

- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

1. **Measure the margins of the PDF document using the Measuring Tool of the Adobe Acrobat Reader software.**

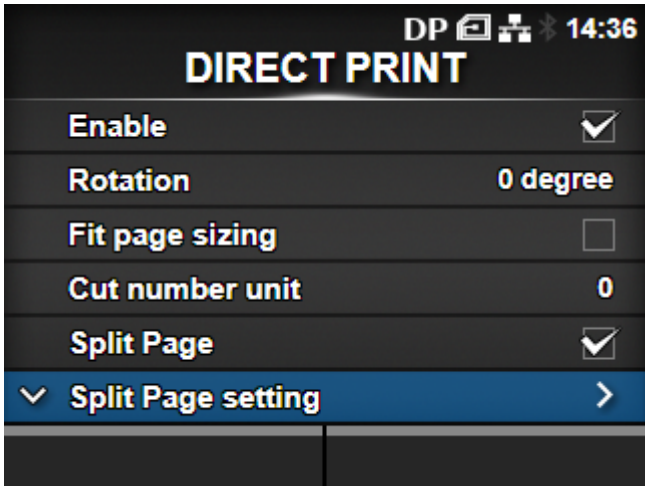
   The margins of the original PDF document must be measured correctly to determine the values for entering to the [Split Page setting] menu.

   Refer to the procedure of Measuring the Margin of the PDF Document.

2. **Calculate the margins, if required, for entering the values to the [Split Page setting] menu.**

   Refer to the calculation method in Calculating the Margins for Split Page Settings.

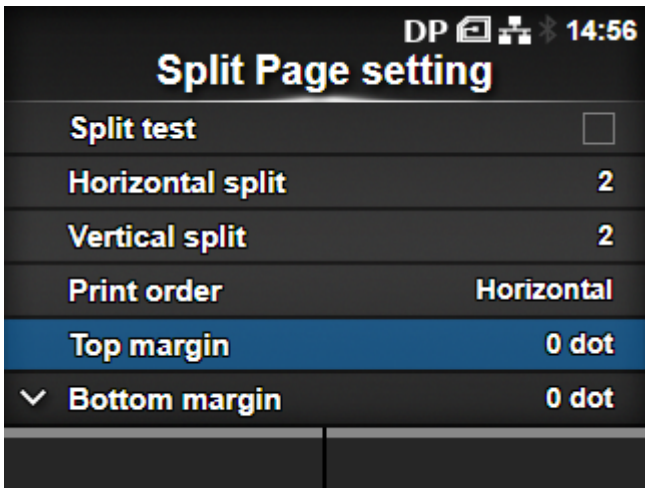
3. **In the [Settings] > [Applications] > [DIRECT PRINT] menu, select [Split Page setting] using the ▲/▼ buttons.**



4. **Press the ↵ button.**

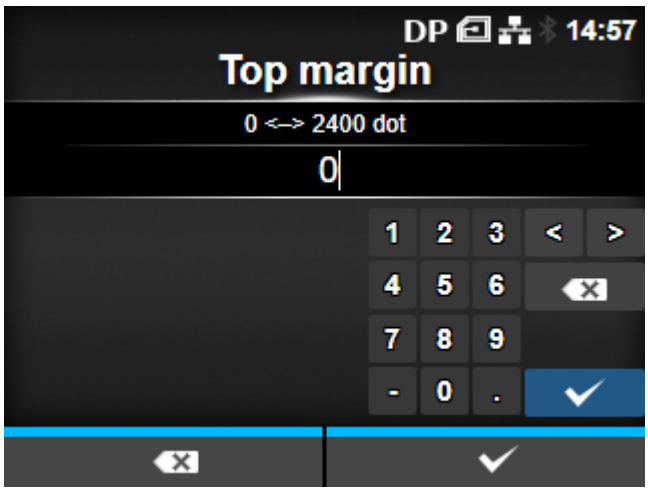
   The [Split Page setting] screen appears.

5. **Select [Top margin] using the ▲/▼ buttons, then press the ↵ button.**



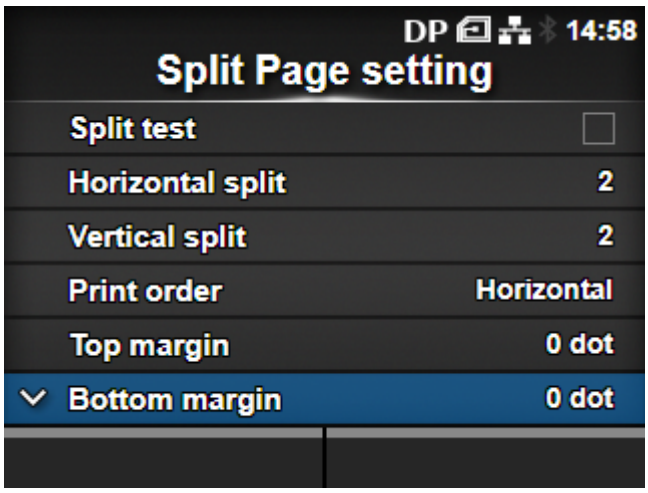
The [Top margin] screen appears.

6. **Set the [Top margin] value. Select a number using the ◀/▶/▲/▼ buttons, then press the ↵ button to enter the number on the text box.**



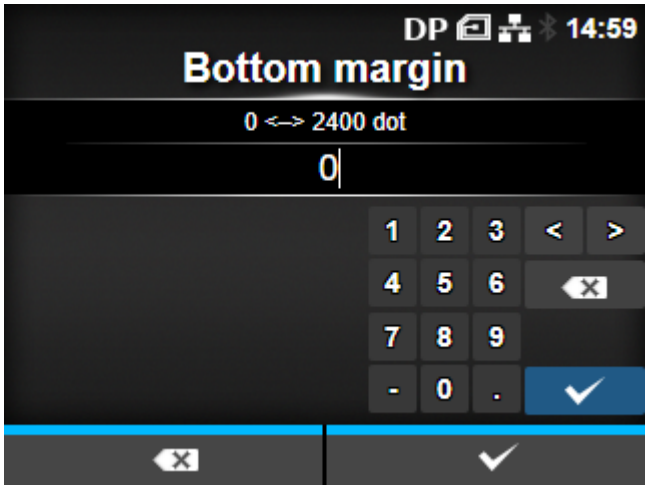
7. **Press the ▬/▭ button to save the value.**

8. **Select [Bottom margin] using the ▲/▼ buttons, then press the ↵ button.**



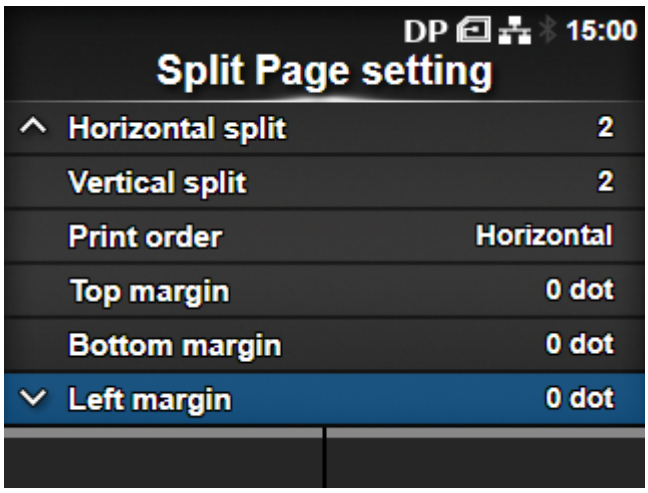
The [Bottom margin] screen appears.

9. **Set the [Bottom margin] value. Select a number using the ◀/▶/▲/▼ buttons, then press the ↵ button to enter the number on the text box.**



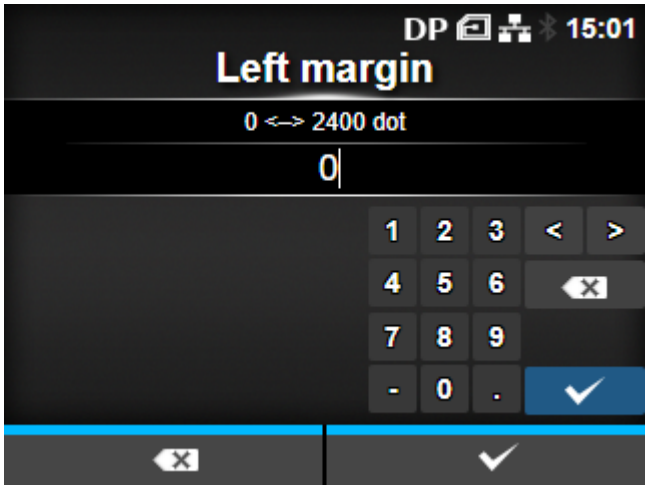
10. **Press the ▬/▭ button to save the value.**

11. **Select [Left margin] using the ▲/▼ buttons, then press the ↵ button.**



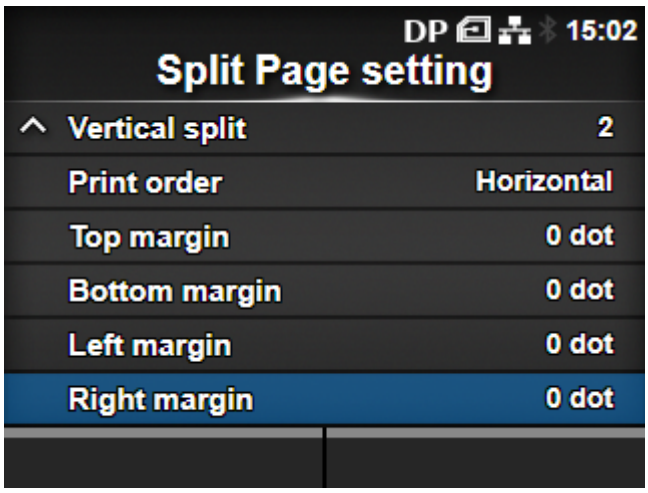
The [Left margin] screen appears.

12. **Set the [Left margin] value. Select a number using the ◀/▶/▲/▼ buttons, then press the ↵ button to enter the number on the text box.**



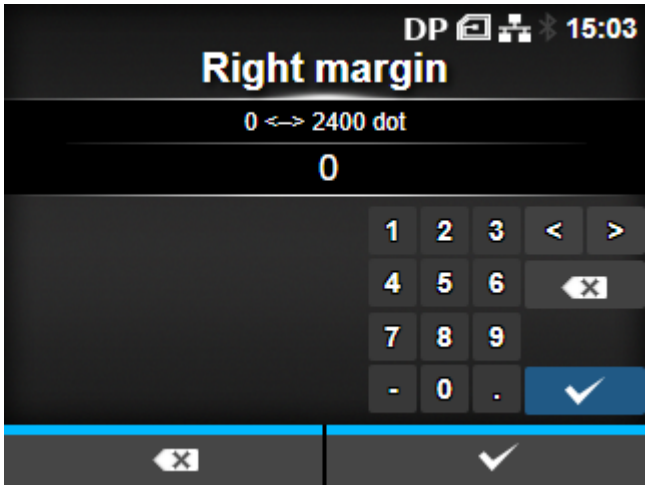
13. **Press the ▬/▬ button to save the value.**

14. **Select [Right margin] using the ▲/▼ buttons, then press the ↵ button.**



The [Right margin] screen appears.

15. **Set the [Right margin] value. Select a number using the ◀/▶/▲/▼ buttons, then press the ↵ button to enter the number on the text box.**



16. **Press the ▬/▭ button to save the value.**

- You can change the units to dots, " (inches), or mm in the [Settings] > [System] > [Regional] > [Unit] screen.
- The setting range of the margins is as follows:

Resolution	CL4NX/CL4NX Plus/ S84NX	CL6NX/CL6NX Plus/ S86NX
203 dpi (1 dot = 0.125 mm (0.0049"))	0 to 800 dots	0 to 800 dots
305 dpi (1 dot = 0.083 mm (0.0033"))	0 to 1200 dots	0 to 1200 dots
609 dpi (1 dot = 0.042 mm (0.0017"))	0 to 2400 dots	-

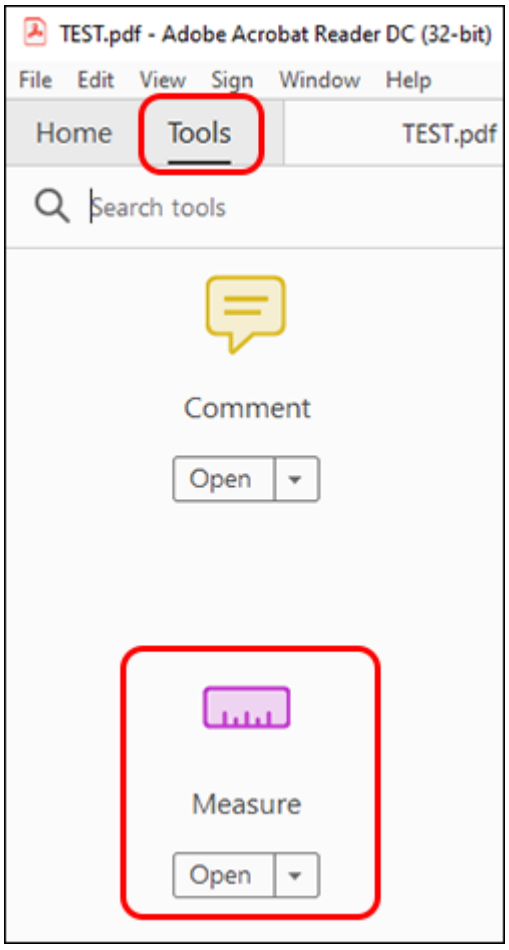
Measuring the Margin of the PDF Document

This is a recommended guide to measure the margins of the PDF document using Adobe Acrobat Reader DC software.

To get the latest version of the free Adobe Acrobat Reader software, go to https://www.adobe.com/

- Do not manually measure the printed PDF document as office automation printers may shrink or enlarge the PDF documents accordingly. This measurement may not be accurate for margins setting.

1. **Open the PDF document using the Adobe Acrobat Reader software.**
2. **Click the Tools tab on the toolbar and select Measure.**

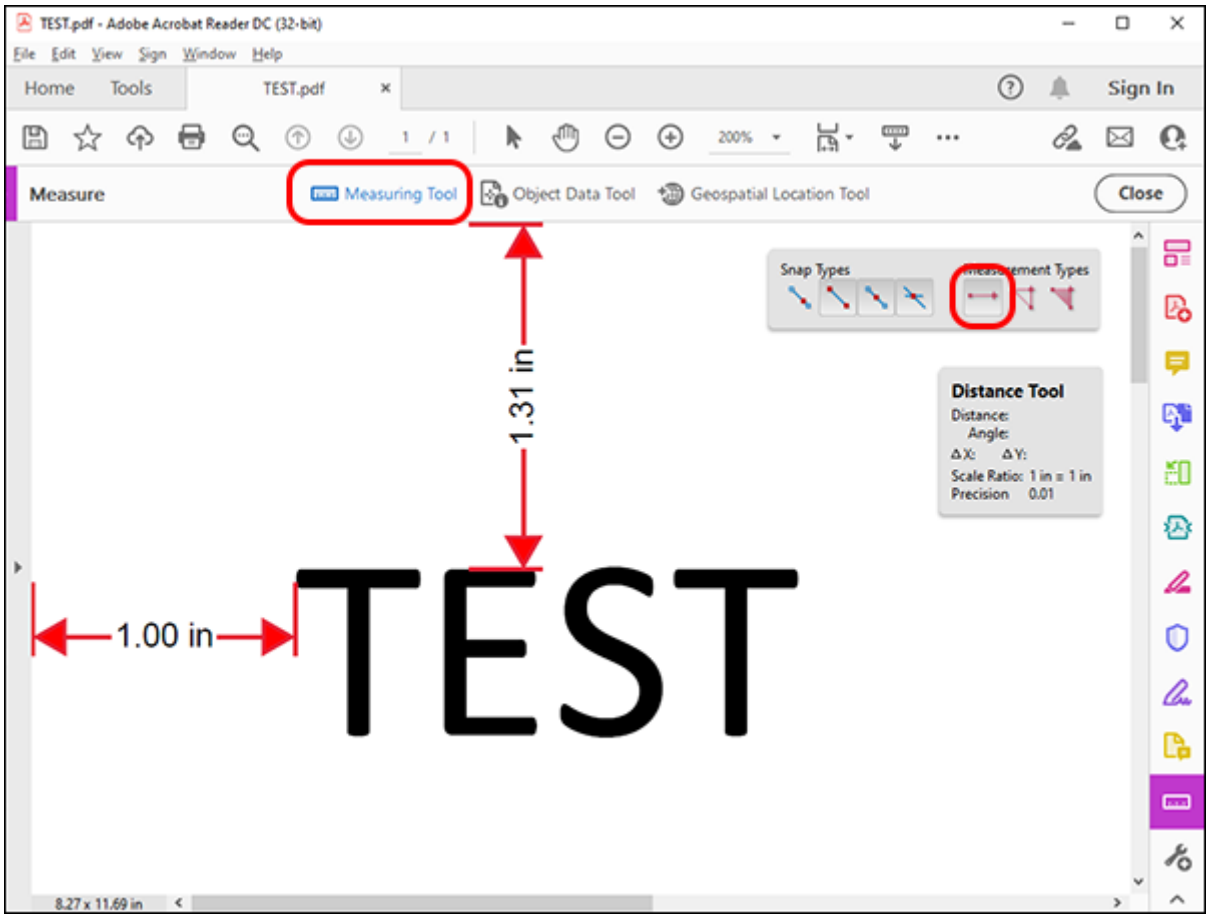


The measurement toolset is shown in the secondary toolbar.

3. **In the secondary toolbar, click Measuring Tool.**

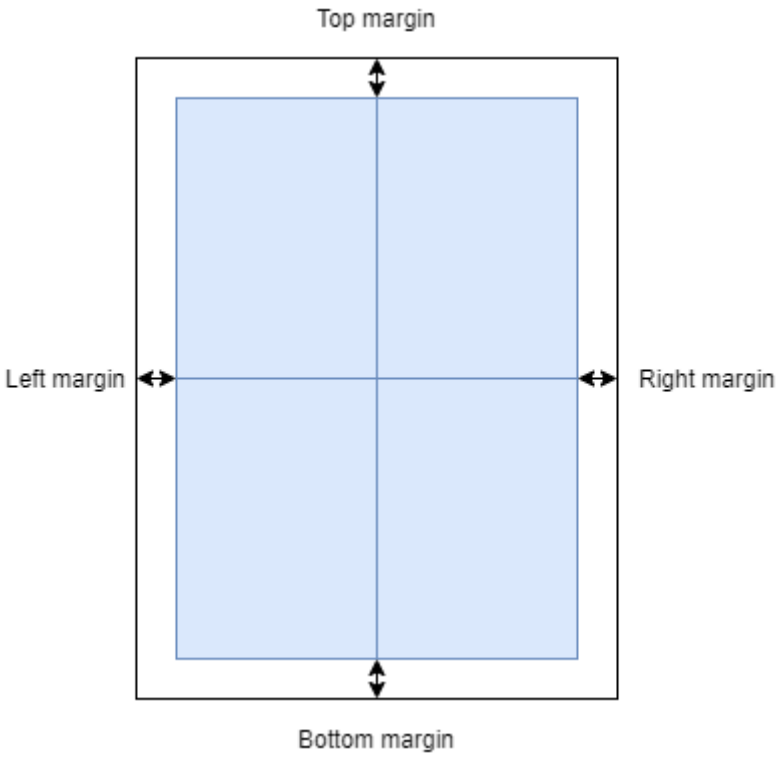
The Measuring toolbar and the Measurement Info panel are shown.

4. **Use the Distance Tool to measure the margins of the page.**



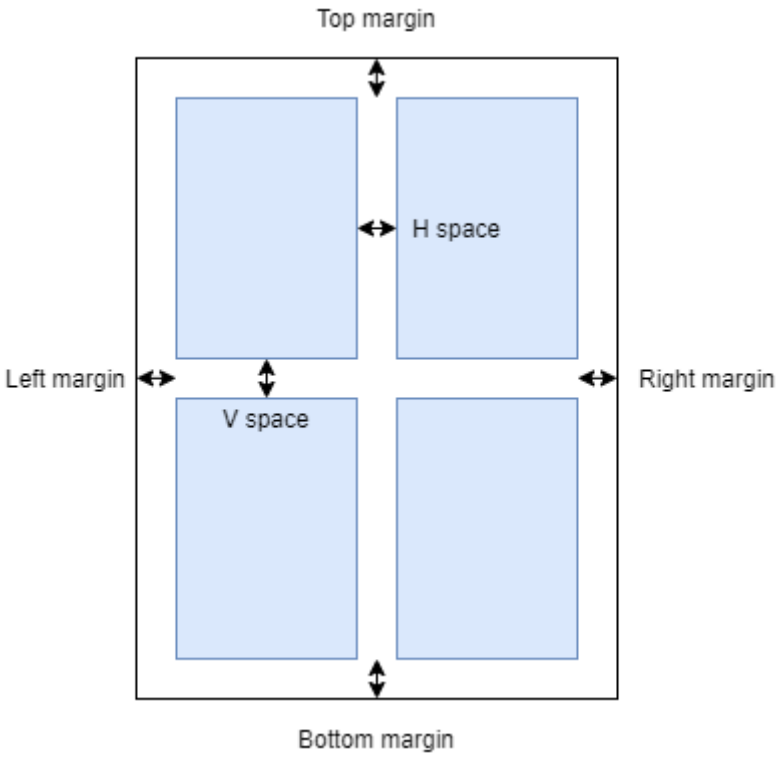
For PDF documents with no space in between the images

Measure the top margin, bottom margin, left margin and right margin of the page.



For PDF documents with space in between the images

Measure the top margin, bottom margin, left margin and right margin of the page, and measure the H space and V space in between the images.



5. **Record all the measurements and proceed to the following procedure accordingly.**

For PDF documents with no space in between the images

You can use the measured values to enter [Top margin], [Bottom margin], [Left margin], and [Right margin] in the [Split Page setting] menu accordingly.

Proceed to step 3 of Setting the Margins of the PDF Document for Split Print Function.

For PDF documents with space in between the images

Using the values that you have measured, calculate the values to be entered in the [Split Page setting] menu.

Refer to the calculation method in Calculating the Margins for Split Page Settings.

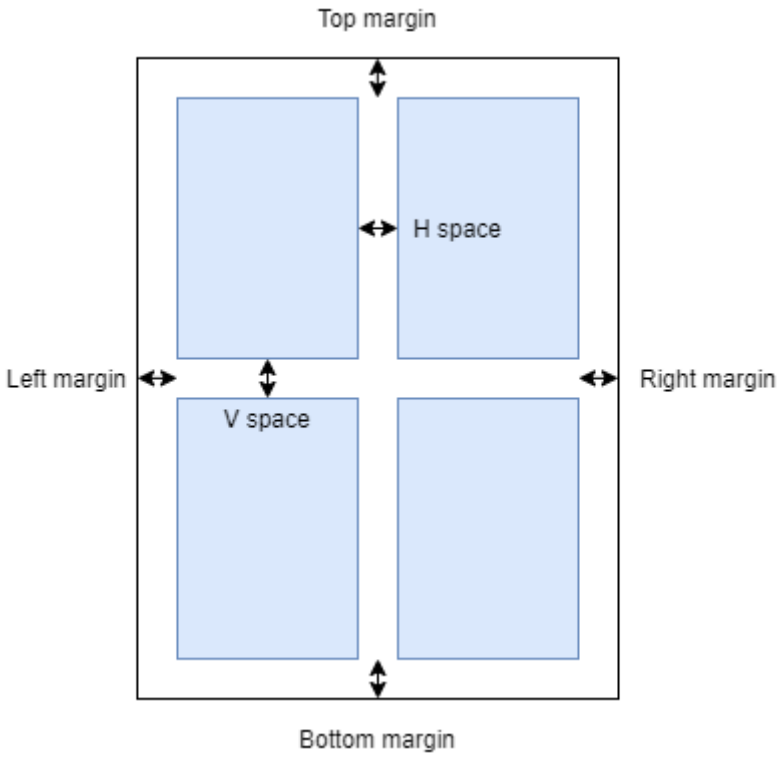
Calculating the Margins for Split Page Settings

When the layout of the PDF document has spacing in between the images, we must calculate the value of the margins to be entered in the [Split Page setting] menu.

You can download our Calculation sheet from this link. https://www.sato-global.com/files/Labelling/PDF%20DP/HowCalculateMargin.xlsx

- This calculation method is suggested for a basic PDF document layout with the same V space and the same H space between the images.
- If you get a negative value from the calculation, you may need other adjustments to properly split the images. Please contact your SATO technical support center or visit https://www.sato-global.com/contact/ for an assistant.

The calculation method is explained as follows.

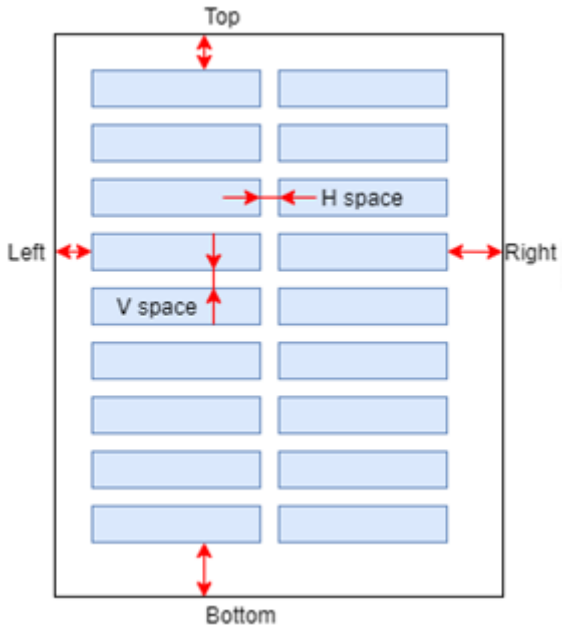


[Top margin]	= measured Top margin - (measured V space / 2)
[Bottom margin]	= measured Bottom margin - (measured V space / 2)
[Left margin]	= measured Left margin - (measured H space / 2)
[Right margin]	= measured Right margin - (measured H space / 2)

Enter the calculated value of the respective margins in the [Split Page setting] menu accordingly.

Example

This example uses the PDF document with [Horizontal split] as 2, [Vertical split] as 9 and there is spacing in between the images.



The measurements taken from the PDF document are recorded as below:

Measured Margins	Measured values (inches)
Top	0.17
Bottom	0.60
Left	0.20
Right	0.18
H space	0.08
V space	0.08

Using the above calculation method, the calculated results are shown as below:

[Top margin]	= 0.17 - (0.08 / 2)	= 0.13 inches
[Bottom margin]	= 0.06 - (0.08 / 2)	= 0.56 inches
[Left margin]	= 0.20 - (0.08 / 2)	= 0.16 inches
[Right margin]	= 0.18 - (0.08 / 2)	= 0.14 inches

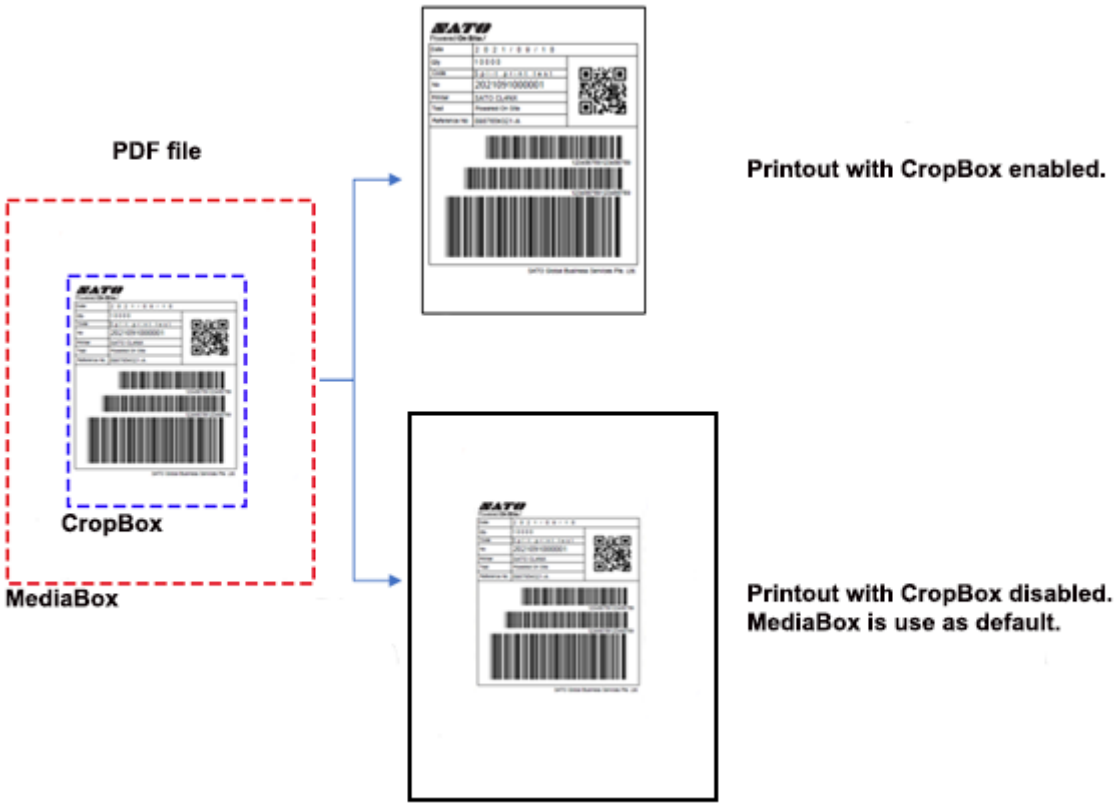
When using the printer with 203 dpi resolution, the converted value from inches to dots are as follow:

[Top margin]	= 0.13 * 203	= 27 dots
[Bottom margin]	= 0.56 * 203	= 114 dots
[Left margin]	= 0.16 * 203	= 33 dots
[Right margin]	= 0.14 * 203	= 29 dots

Using CropBox Mode

- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

By enabling the [Use CropBox] mode, you can print out the contents based on the boundary set if a PDF contains a CropBox definition.

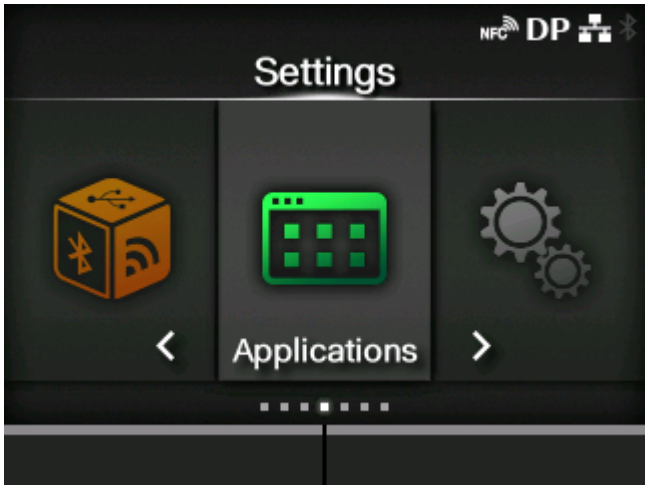


- MediaBox and CropBox standards are based on PDF specification.

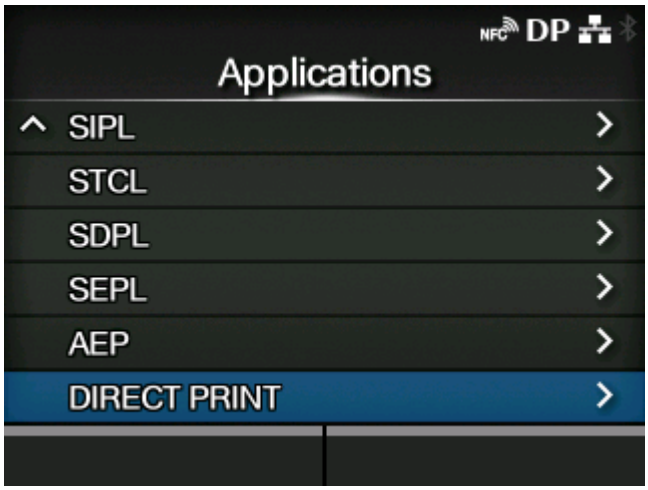
1. **When the printer is in Online mode, press the button to change to Offline mode.**

2. **Press the ↵ button to show the [Settings] mode.**

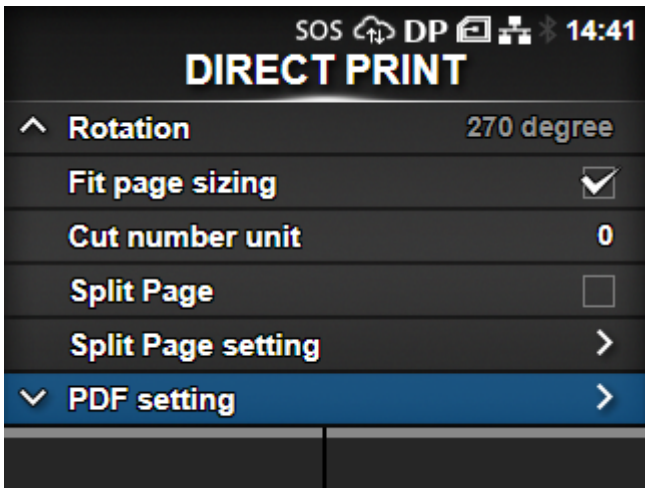
3. **Select [Applications] using the ◀/▶ buttons, then press the ↵ button.**



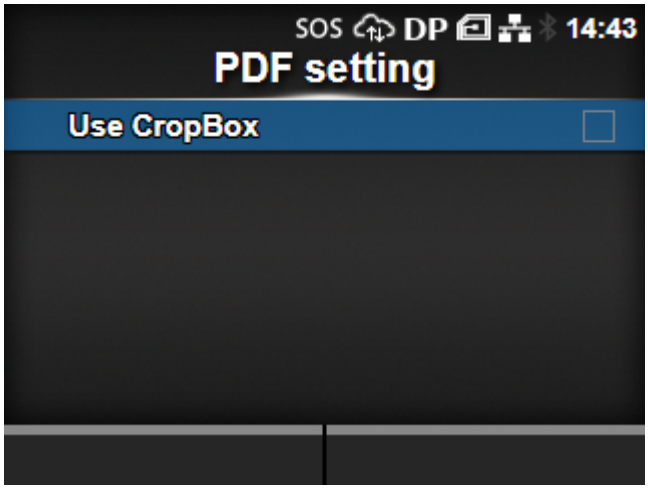
4. **Select [DIRECT PRINT] using the ▲/▼ buttons, then press the ↵ button.**



5. **Select [PDF setting] using the ▲/▼ buttons, then press the ↵ button.**

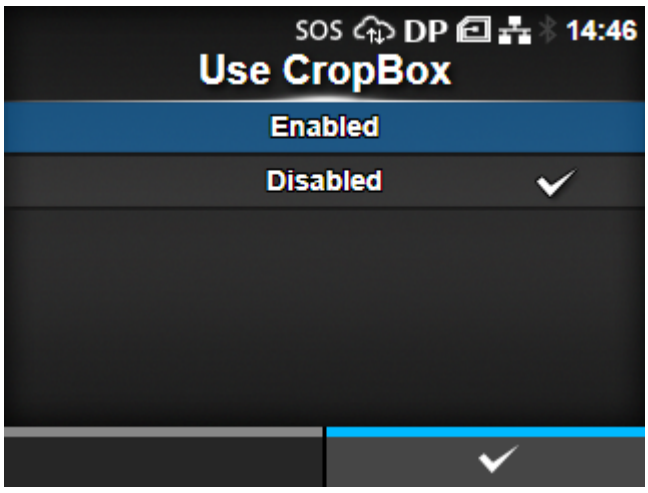


6. **Select [Use CropBox] and press the ↵ button.**



The [Use CropBox] screen appears.

7. **Select [Enabled] using the ▲/▼ buttons.**



8. **Press the ◀/▶ button or ↵ button to save the setting.**

9. **Press the button to change to Offline mode.**

10. **Press the button again to change to Online mode.**

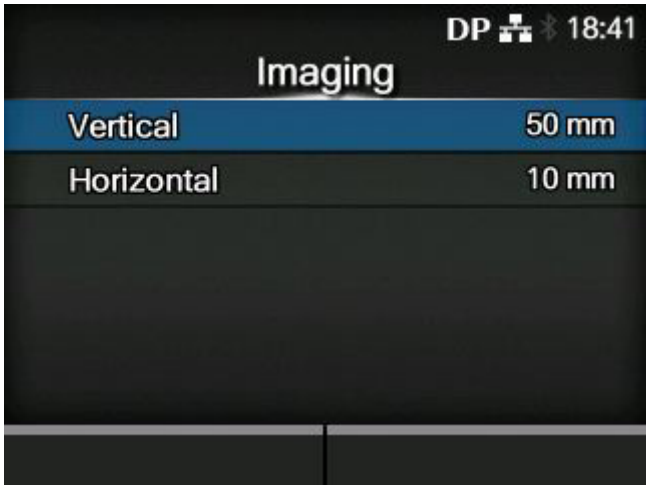
    You can print to check the print image.

Adjusting the Print Image Position

- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

Depending on the PDF data, you may need to adjust the print image position.

You can adjust the print image position in the [Settings] > [Printing] > [Imaging] menu.

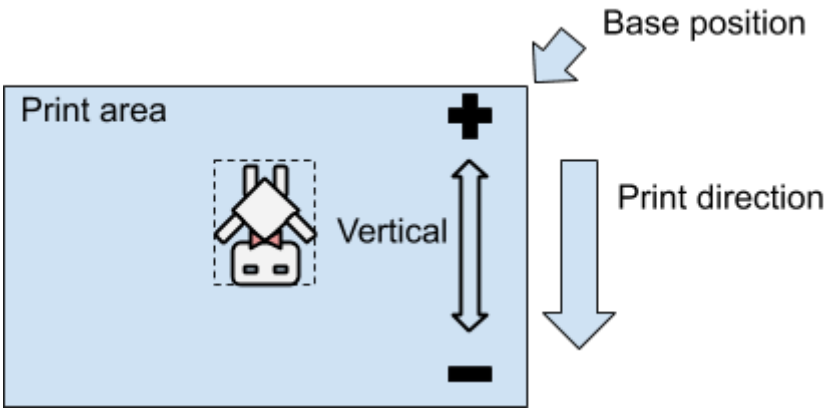


Set the print reference position in the vertical and horizontal directions.

[Vertical]

Set the print position in the vertical direction.

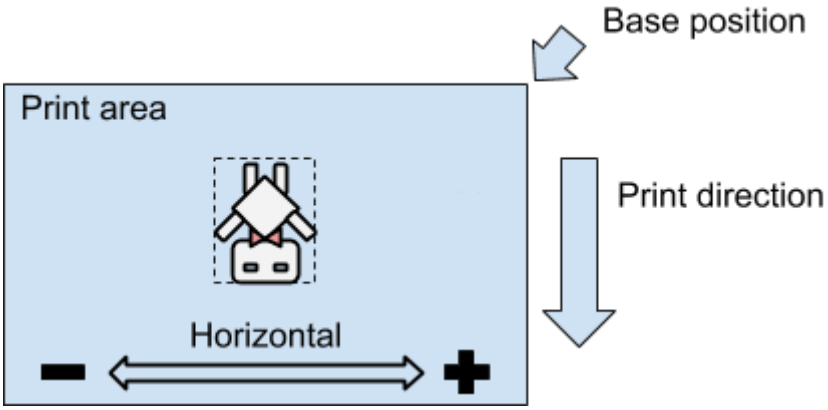
Set the correction value from the print reference position as “-” for the direction of the paper feed and “+” for the direction opposite to the paper feed.



[Horizontal]

Set the print position in the horizontal direction.

Set the correction value from the print reference position when facing the product as “+” to adjust to the right side and “-” to adjust to the left side.



Frequently Asked Questions

Below is some information that may be helpful when using the PDF Direct Print function:

1. **How to reset the printer after a firmware update?**
   You can reset the printer in the [Settings] > [Tools] menu. Select [Reset] to show the [Select] menu, then select the items to be initialized.
   Please refer to the CL4NX/CL6NX operator manual, CL4NX Plus/CL6NX Plus operator manual or S84NX/S86NX operator manual for more detailed information.

   ☞Click the link below for the CL4NX/CL6NX operator manual.

   https://www.manual.sato-global.com/printer/cl4nx_cl6nx/main/index.html

   ☞Click the link below for the CL4NX Plus/CL6NX Plus operator manual.

   https://www.manual.sato-global.com/printer/clnxplus/main/index.html

   ☞Click the link below for the S84NX/S86NX operator manual.

   https://www.manual.sato-global.com/printer/s8nx/en/main/index.html

2. **How to set the application protocol to SBPL?**
   Please refer to step 2 in Initial Printer Settings.

3. **How to set the label size?**
   Please refer to step 3 in Initial Printer Settings.

4. **How to set the image rotation of the page orientation?**
   Please refer to Rotating the Page Orientation.

5. **How can I set the number of labels to be printed before they are cut out from the printer?**
   Please refer to Specifying the Number of Labels Printed Before Cut (CL4NX/CL6NX/CL4NX Plus/CL6NX Plus).

6. **How to split a PDF document into multiple images and print them individually?**
   Please refer to Splitting Images to Print Individually.

7. **How to set the Gap/I-mark sensor?**
   You can set the Gap/I-mark sensor in the [Settings] > [Printing] menu. Select [Sensor Type] to set the sensor type for detecting the label.
   Please refer to the CL4NX/CL6NX operator manual, CL4NX Plus/CL6NX Plus operator manual or S84NX/S86NX operator manual for more detailed information.

   ☞Click the link below for the CL4NX/CL6NX operator manual.

   https://www.manual.sato-global.com/printer/cl4nx_cl6nx/main/index.html

Click the link below for the CL4NX Plus/CL6NX Plus operator manual.

https://www.manual.sato-global.com/printer/clnxplus/main/index.html

Click the link below for the S84NX/S86NX operator manual.

https://www.manual.sato-global.com/printer/s8nx/en/main/index.html

8. **How to activate the PDF Direct Print license?**

   Please refer to License Activation.

9. **Why is the size of the print image shrunk or enlarged?**

   You have enabled the [Fit page sizing] function.
   To disable the [Fit page sizing] function, refer to Resizing the Image to Fit the Page and select [Disabled].

10. **Can I save frequently used settings for different PDF documents?**

    You can save your frequently used setting for different PDF documents in the [Settings] > [Tools] > [Profiles] menu.
    Please refer to the CL4NX/CL6NX operator manual, CL4NX Plus/CL6NX Plus operator manual or S84NX/S86NX operator manual for more detailed information.

    Click the link below for the CL4NX/CL6NX operator manual.

    https://www.manual.sato-global.com/printer/cl4nx_cl6nx/main/index.html

    Click the link below for the CL4NX Plus/CL6NX Plus operator manual.

    https://www.manual.sato-global.com/printer/clnxplus/main/index.html

    Click the link below for the S84NX/S86NX operator manual.

    https://www.manual.sato-global.com/printer/s8nx/en/main/index.html

11. **Why is there extra space before the image?**

    The setting of the label size may be incorrect.
    Set the correct label size. Please refer to step 3 in Initial Printer Settings.

12. **Why some of the texts printed out are different from the image?**

    The font data may not be embedded in the PDF document.
    Please make sure that the font data is embedded in the PDF document before being sent for printing.

13. **Why does the printer only print out the first page of the PDF document in Split Print Function?**

    You may have enabled the [Split test] function.
    To disable the [Split test] function, refer to Test Printing for Split Print Function and select [Disabled].

14. **Why is the print image not printed out or shifted?**

- The PDF document may have the CropBox definition set.

  Enable the [Use CropBox] mode to print the content based on the CropBox definition set in the PDF document. Please refer to Using CropBox Mode.

- The setting of the print reference position may be incorrect or the values are too large.

  You can adjust the print image position in the [Settings] > [Printing] > [Imaging] menu. Please refer to Adjusting the Print Image Position.

15. **Why the PDF document is not printed out when the [Split Page] function is [Enable]?**

    The PDF document may not have the MediaBox definition.
    Set your PDF document with the MediaBox definition using your PDF viewer application.
    Please contact your SATO technical support center for more information.

16. **Why is the blank page of the PDF document not printed out?**

    The blank page skip function is a default function for CL4NX/CL6NX/CL4NX Plus/CL6NX Plus/ S84NX/S86NX series printers.
    Please contact your SATO technical support center for more information if you need to print the blank page.

17. **Why do PDF documents seem to print much slower?**

    If the PDF document contains many objects such as fonts, images, lines and barcodes, the printers may need more time to process.

- The print result varies depending on the PDF document. If you need any further clarification, please contact your SATO technical support center for more information.

PDF Direct Print Menu

This section describes the details of each item in the [DIRECT PRINT] menu.

- The operation using the [DIRECT PRINT] menu can also be performed via a Web configuration page using any browser.

  For detailed information on accessing the Web configuration page, refer to each printer's operator manual.
  Check out the *TOP* > *Various Settings of the Product* > *Configuring the Product Settings from a Web Browser* section of the operator manual.

  Click the link below for the CL4NX/CL6NX operator manual.

  https://www.manual.sato-global.com/printer/cl4nx_cl6nx/main/index.html

  Click the link below for the CL4NX Plus/CL6NX Plus operator manual.

  https://www.manual.sato-global.com/printer/clnxplus/main/index.html

  Click the link below for the S84NX/S86NX operator manual.

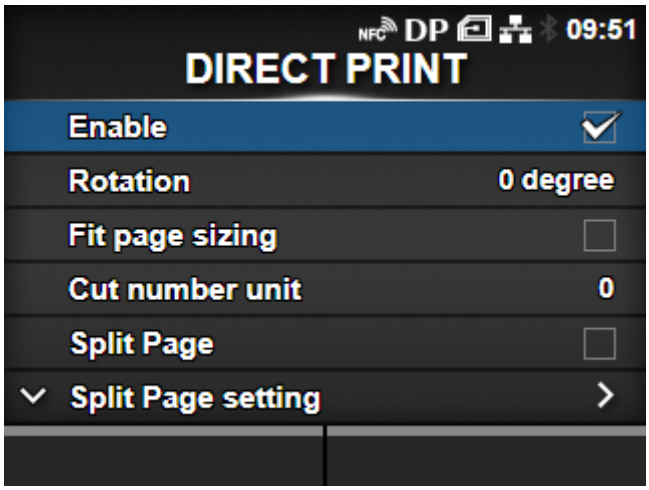
  https://www.manual.sato-global.com/printer/s8nx/en/main/index.html

The [DIRECT PRINT] Menu

- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

After you have the PDF Direct Print firmware installed in the printer, you can access the [DIRECT PRINT] menu.

In the Offline mode, select [Settings] > [Applications] > [DIRECT PRINT] to show the [DIRECT PRINT] menu.



The following settings are available in the [DIRECT PRINT] menu:

[Enable]

Enable or disable the direct print mode.

- When a check mark shows on the check box of [Enable], the direct print mode is enabled.

  The **DP** (Direct Print) status icon is shown on the status bar at the top of the display.
- When the check box of [Enable] is cleared, the direct print mode is disabled.

  The **DP** status icon is not shown on the status bar at the top of the display.

- After the PDF Direct Print firmware is installed on the printer, the direct print mode is enabled by default.

[Rotation]

Set the rotating angle of the page orientation for PDF direct printing.

The options are as follow:

[0 degree]

Prints the page without rotation.

[90 degree]

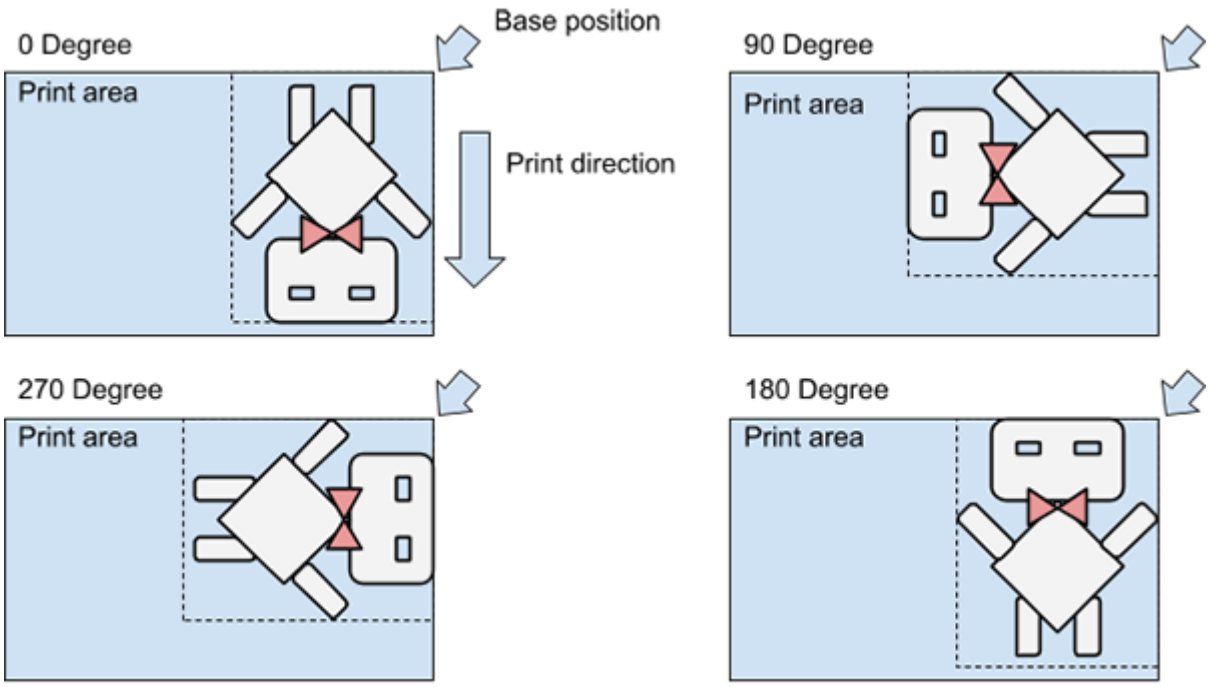
Rotates the page orientation 90 degrees clockwise.

[180 degree]

Rotates the page orientation 180 degrees.

[270 degree]

Rotates the page orientation 270 degrees clockwise.

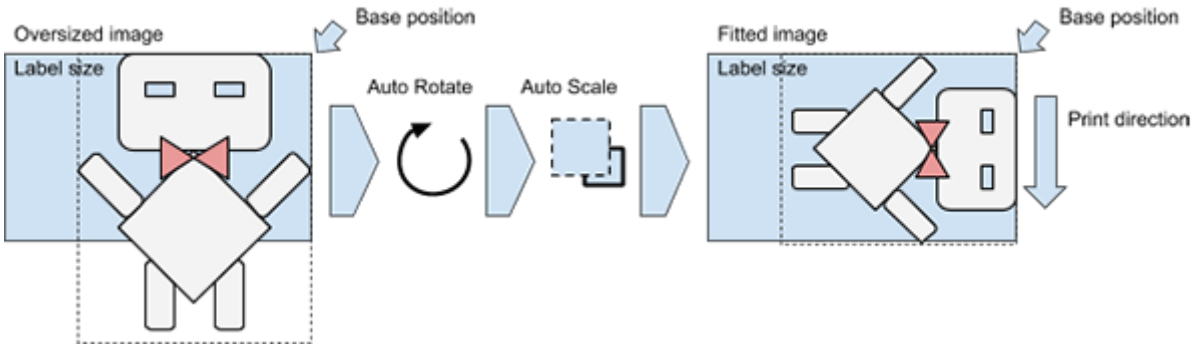


- The rotating angle cannot be set if the [Fit page sizing] is enabled.
- The initial setting of [Rotation] is 0 degrees.

[Fit page sizing]

By enabling the [Fit page sizing] function, the printer automatically rotates, enlarges or reduces the print image to best fit the label page size.

This function is convenient for correcting the cropped printout if the print image is too big for the label size, or removing the whitespace if the print image is too small for the label size.



- When the [Fit page sizing] is enabled, the settings for the [Rotation] are invalid.
- The initial setting of [Fit page sizing] is disabled.

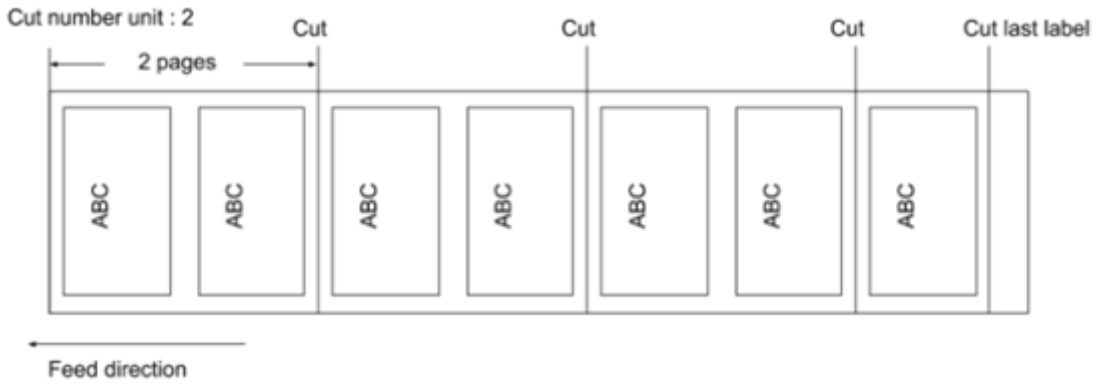
[Cut number unit] (CL4NX/CL6NX/CL4NX Plus/CL6NX Plus only)

You can set to cut the label after the specified number of printouts are printed from a single data source.

The setting range of the [Cut number unit] is from 0 to 9999.

If 0 or 1 is set, the printer will print and cut for each printout.

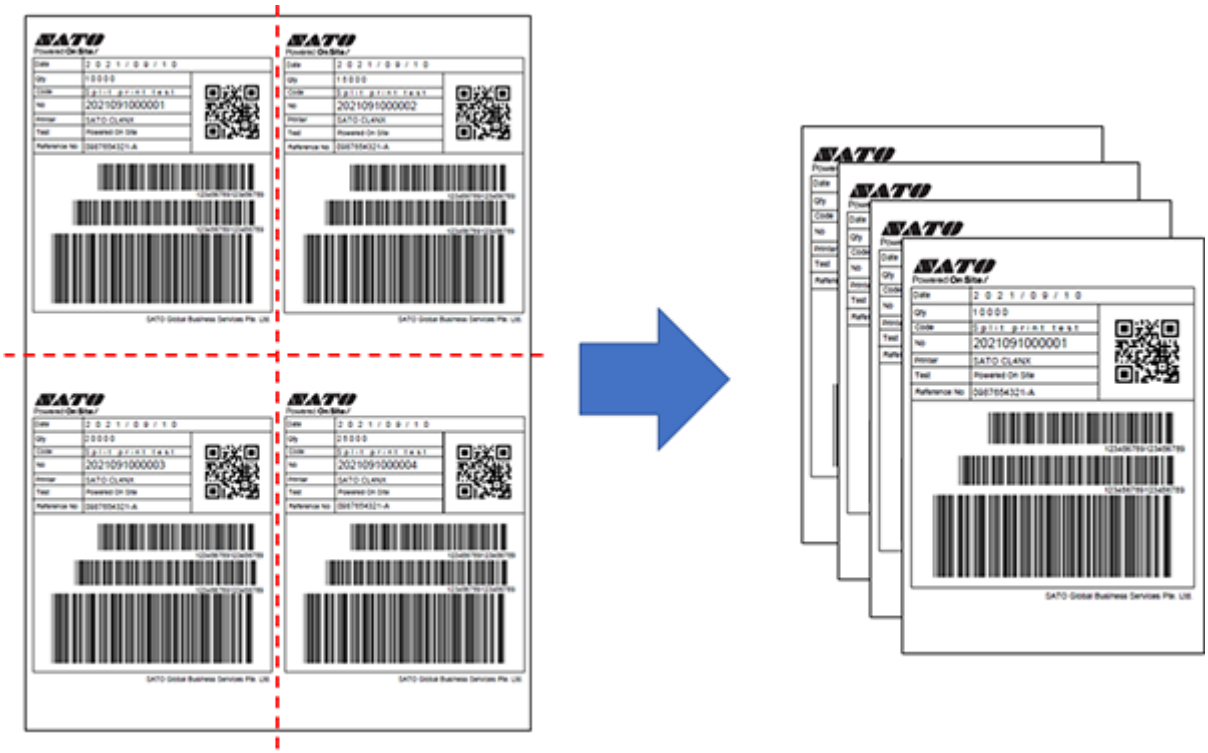
The printer will cut the last printout of the print data regardless of the specified number of [Cut number unit] as shown in the diagram below.



- This cutting feature only takes effect when the [Print Mode] is set as [Cutter], [Cut & Print], or [Partial cutter].
- The initial setting of [Cut number unit] is 0.
- If the split function is enabled, the maximum [Cut number unit] is set at 1.

[Split Page]

By enabling the [Split Page] function, the printer can split the image of the PDF document and print them individually as shown below.



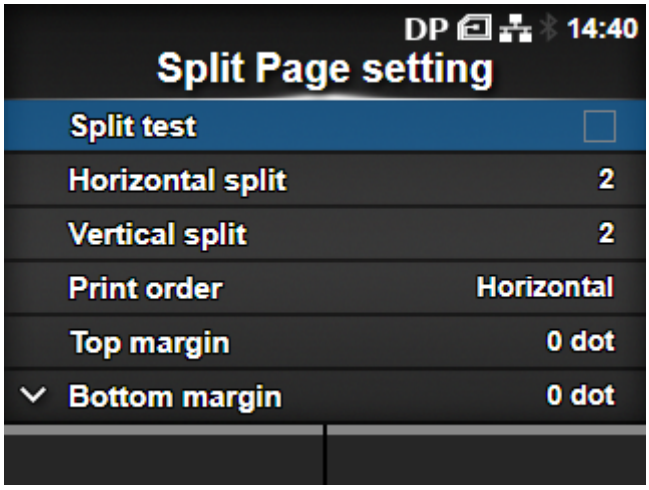
This function can also apply to the multiple pages PDF document.

If there is a blank split page, the printer will skip printing the blank label.

- If the printer operates on PDF Direct Print [Demo] mode, the printer will not skip printing the blank label.

[Split Page setting]

Select to show the [Split Page setting] screen.



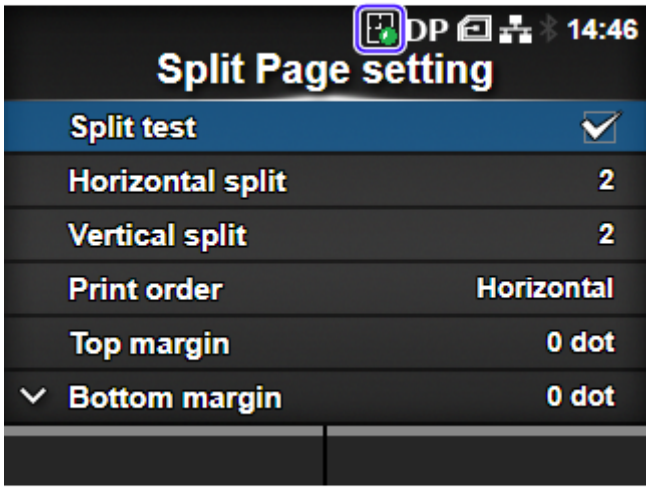
The following information and settings are available in the [Split Page setting] menu:

[Split test]

By enabling the [Split test] mode, you can perform test printing for the split print function. When the PDF data is sent to the printer, only the split images of the first page of the PDF document are printed.

This is useful for checking the printout after configuring the items in the [Split Page setting] menu.

When the [Split test] mode is enabled, the split test icon is shown on the status bar at the top of the display.



- After performing the test print, you must disable the [Split test] mode to resume back to the actual printing of the split print function.

[Horizontal split]

The [Horizontal split] specified the number of images to be split horizontally across the page.

[Vertical split]

The [Vertical split] specified the number of images to be split vertically down the page.

[Print order]

You can set the sequence of the split images to be printed out.

The options are as follow:

[Horizontal]

The printing sequence of the split images is from top left to top right, then bottom left to bottom right.

[Horizontal Reversed]

The printing sequence of the split images is from top right to top left, then bottom right to bottom left.

[Vertical]

The printing sequence of the split images is from top left to bottom left, then top right to bottom right.

[Vertical Reversed]

The printing sequence of the split images is from top right to bottom right, then top left to bottom left.

- **Horizontal**
  1 → 2 → 3 → 4

- **Horizontal Reversed**
  2 → 1 → 4 → 3

- **Vertical**
  1 → 3 → 2 → 4

- **Vertical Reversed**
  2 → 4 → 1 → 3

[Top margin]

Set the top margin for the split print function after proper measurement and calculation to determine the value.

Refer to the following links:

Measuring the Margin of the PDF Document

Calculating the Margins for Split Page Settings

[Bottom margin]

Set the bottom margin for the split print function after proper measurement and calculation to determine the value.

Refer to the following links:

Measuring the Margin of the PDF Document

Calculating the Margins for Split Page Settings

[Left margin]

Set the left margin for the split print function after proper measurement and calculation to determine the value.

Refer to the following links:

Measuring the Margin of the PDF Document

Calculating the Margins for Split Page Settings

[Right margin]

Set the right margin for the split print function after proper measurement and calculation to determine the value.

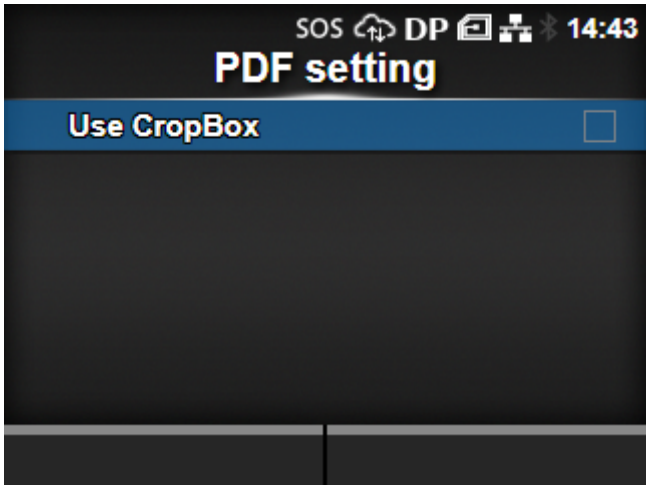
Refer to the following links:

Measuring the Margin of the PDF Document

Calculating the Margins for Split Page Settings

[PDF setting]

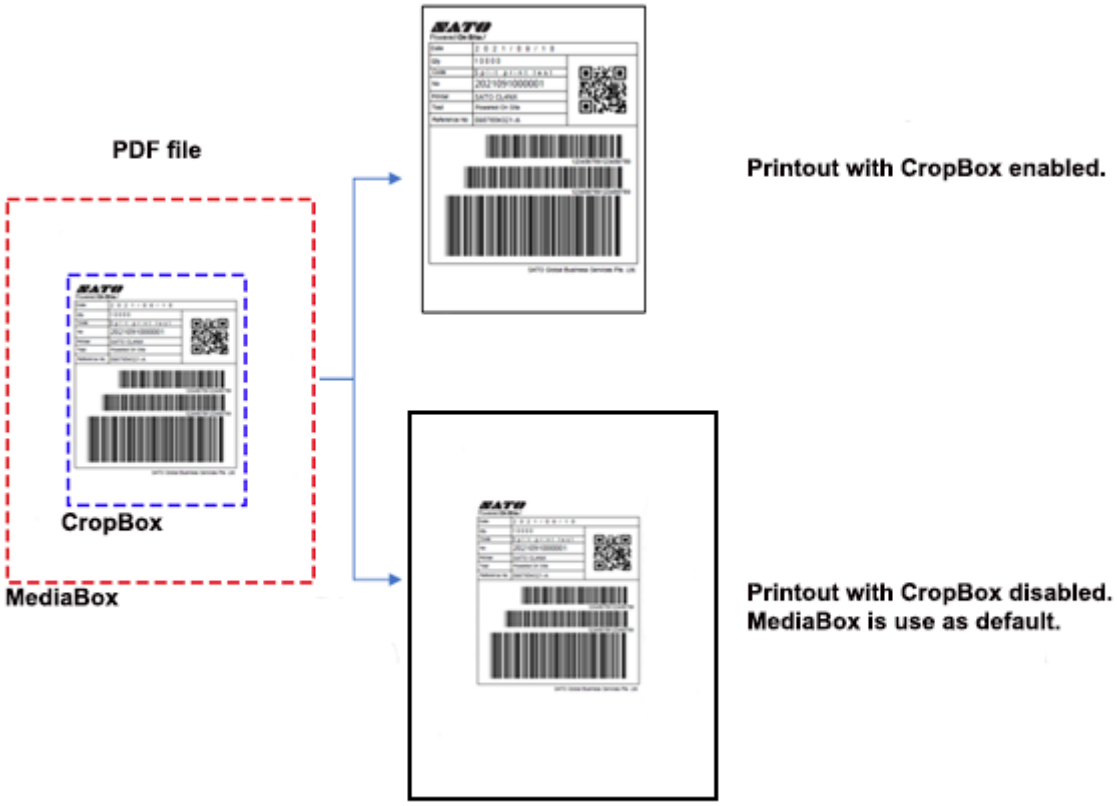
Select to show the [PDF setting] screen.



The following information and settings are available in the [PDF setting] menu:

[Use CropBox]

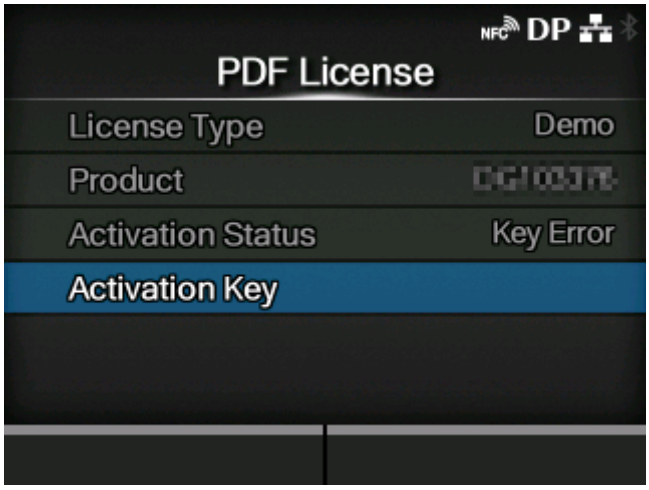
By enabling the [Use CropBox] mode, you can print out the contents based on the boundary set if a PDF contains a CropBox definition.



- MediaBox and CropBox standards are based on PDF specification.

[PDF License]

Select to show the [PDF License] management screen.



The following information and settings are available in the [PDF License] menu:

[License Type]

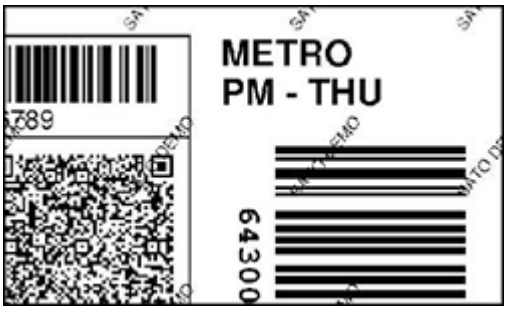
Shows the type of PDF Direct Print license registered for this printer. Once the PDF Direct Print firmware is installed, the printer is initially set as demo mode.

There are three types of licenses available.

[Demo]

If you have not activated the PDF Direct Print license, the printer will work in demo mode.

In the demo mode, PDF printing is possible but the printed content has SATO DEMO watermarks printed across the label.



[Develop]

The development license is only used by SATO resellers and technical support for internal verification without sales. It is strictly not for commercial use.

To activate the license, you need an activation key issued by the license management server.

[Commercial]

The commercial license is for users who purchased the PDF Direct Print.

To activate the license, you need an activation key issued by the license management server.

[Product]

Shows the printer serial number. This serial number is used for registration and generating the license activation key at the license management server.

[Activation Status]

Shows the activation status of the PDF Direct Print license.

There are three types of activation status.

[Not Activated]

Shows when the license is not activated.

[Key Error]

Shows when the entered activation key is wrong or is not registered for this printer serial number.

[Activated]

Shows when the entered activation key is valid and is registered for this printer serial number. The PDF Direct Print license is activated.

[Activation Key]

The [Activation Key] shows only when the PDF Direct Print license is not activated.

Select the [Activation Key] to show the input screen to enter the 8-digit activation key issued by the license management server.

- The license activation should be performed by SATO technical support personnel.

[DEACTIVATE]

This selection item shows only when the PDF Direct Print license is activated.

Select [DEACTIVATE] only if you want to deactivate the license.

When you select [DEACTIVATE], a screen to confirm deactivation appears.

- Make sure that you need to deactivate the license before doing it. Once deactivated, you need to contact SATO technical support personnel to activate the license again.

After you deactivated the license, the [License Type] returns to [Demo] and the [Activation Status] shows [Key Error].

Maintenance Support

SATO provides maintenance support to ensure the reliable operation of your product.

A separate printer maintenance contract bundle is highly recommended for users regardless of the license type of the PDF Direct Print function.

In the event of printer replacement, the user without a maintenance contract will need to purchase a new PDF Direct Print license for the new printer. Whereas, the user who has purchased a maintenance contract can continue using the new printer with the purchased license transferred to it.

SATO technical support personnel will assist to install the firmware, transfer the original license or activate the new license for users.

For details on the maintenance contract, contact your SATO reseller or technical support center for more information.

Contact Information for When You Are in Trouble

Access the following site to send us your questions or comments.

☞ https://www.sato-global.com/contact/

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About This Manual

Thank you for using the SATO PDF Direct Print.

This document is intended for users who want to know how to configure SATO printers with PDF Direct Print function or system integrators who want to develop a solution that can send PDF data from their system and directly print the PDF data without graphics conversion on SATO printers with PDF Direct Print function.

This document describes only the information and instructions related to PDF Direct Print. For more details on other printer operations and settings, please refer to each printer's operator manual.

☞Click the link below for the CL4NX/CL6NX operator manual.

https://www.manual.sato-global.com/printer/cl4nx_cl6nx/main/index.html

☞Click the link below for the CL4NX Plus/CL6NX Plus operator manual.

https://www.manual.sato-global.com/printer/clnxplus/main/index.html

☞Click the link below for the S84NX/S86NX operator manual.

https://www.manual.sato-global.com/printer/s8nx/en/main/index.html

Symbols

This document uses the following symbols:

Item	Description
Caution	The Caution symbol indicates potential risks or actions that may lead to software malfunction, data loss, errors, or unexpected behavior if not followed correctly.
Note	The Note symbol indicates useful and supplemental information that you should know.
Reference	The Reference symbol indicates the link of relevant information.

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- Great care has been taken in the preparation of this document, but if any problems, mistakes, or omissions are found, please contact your SATO reseller or technical support center.

- This manual uses the build version 1.13.7-u668_r2 firmware in its descriptions. (CL4NX/CL6NX/CL4NX Plus/CL6NX Plus)
- This manual uses the build version 8.1.0-u739_r6 firmware in its descriptions. (S84NX/S86NX)

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Introduction

Overview

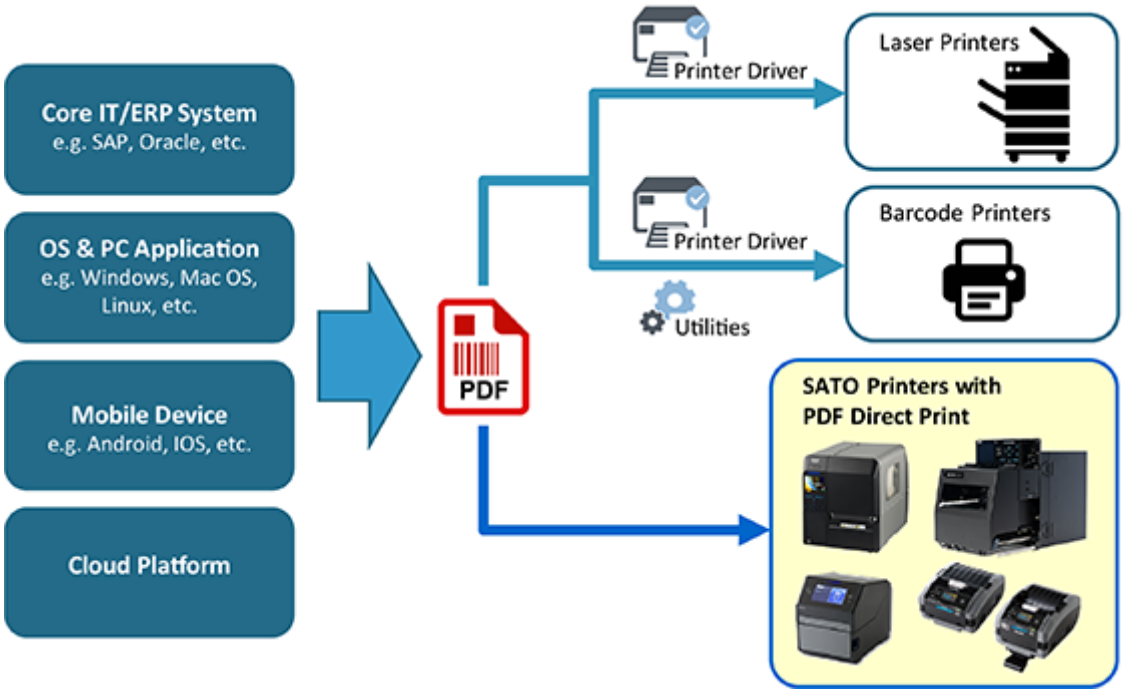
This document is intended for users who want to know how to configure SATO printers with PDF Direct Print function or system integrators who want to develop a solution that can send PDF data from their system and directly print the PDF data without graphics conversion on SATO printers with PDF Direct Print function.

About PDF Direct Print

PDF data becomes a standard document format for most of the ERP system, OS and PC applications, etc. However, when printing PDF data on most of the barcode printers, it requires a printer driver or custom software that converts PDF to graphic for printing.

SATO PDF Direct Print is the solution implemented as a special firmware installed on the printer. It allows users to print PDF files directly to the SATO printers without using any printer driver, utilities, middleware or application installed to the system.

It provides a cost-effective, secure, simple and reliable direct printing solution.



Supported Printers and Interfaces

The supported printer models of this function are CL4NX, CL6NX, CL4NX Plus, CL6NX Plus, CT4-LX, PW208NX, PW208mNX and S84NX/S86NX.

Users can send PDF data via any available interface of the supported printers, such as LAN, WLAN, USB, Bluetooth, etc.

Features

The features of SATO PDF Direct Print include:

Multilingual fonts and typefaces

PDF Direct Print supports all languages available in PDF and uses fonts embedded in the PDF file to prevent text garbling.

PC-less printing

PDF Direct Print resides in the printer memory and processes data internally. Thus, saving cost, space and time by eliminating the need to manage additional devices.

Split print feature

Split the PDF document into multiple images and print them individually.

Layout Adjustment

Enables quick and easy changes to the orientation of data and the avoidance of any blank spaces.

High Speed and Quality

PDF Direct Print generates clear and precise fonts and barcodes and controls color density alongside a high-speed internal processor to ensure high and consistent throughput.

Multiple Interfaces

PDF Direct Print supports every commonly used printer communication interface, including Wireless LAN, USB and Bluetooth, enabling flexible use across any business environment.

Cutter Options (For CL4NX/CL6NX/CL4NX Plus/CL6NX Plus only)

Users can set to cut the label after a specified number of printouts printed from a single data source.

SATO AEP

SATO AEP (Application Enabled Printing) enables more sophisticated operations through the use of API.

Getting Started

Installation

There is no need for users to perform the firmware installation as the printer comes with the special firmware installed after purchasing the PDF Direct Print.

In the event of printer replacement, SATO technical support personnel will install the firmware and enable the PDF Direct Print function on the new printer.

- Installation of PDF direct print firmware should be performed by SATO technical support personnel.

License Activation

The PDF Direct Print license is initially activated on the printer if the user has already purchased the license. A license activation key is required to perform the activation.

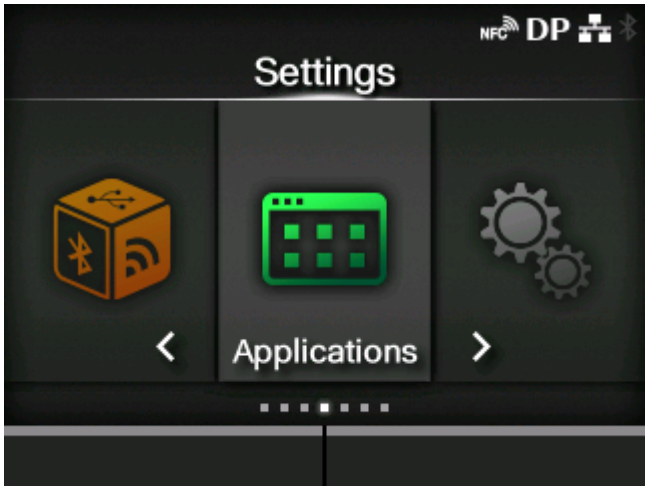
If the license is not activated, the PDF Direct Print will be running on Demo mode.

- The license activation should be performed by SATO technical support personnel.
- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

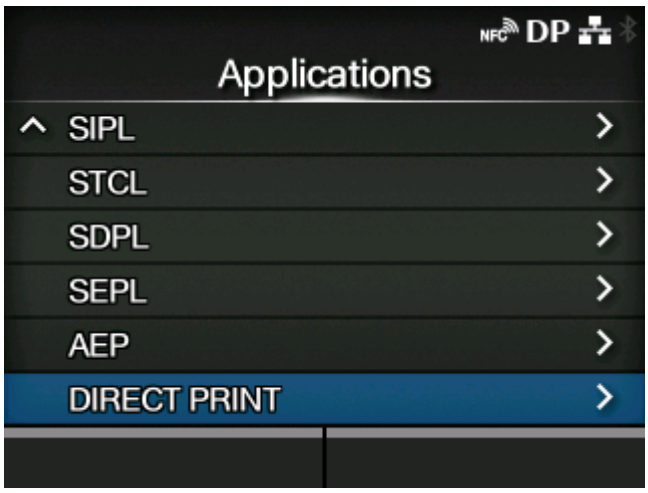
The license activation procedure intended for SATO technical support personnel is as follows:

1. **When the printer is in Online mode, press the ⏯ button to change to Offline mode.**
2. **Press the ↵ button to show the [Settings] mode.**

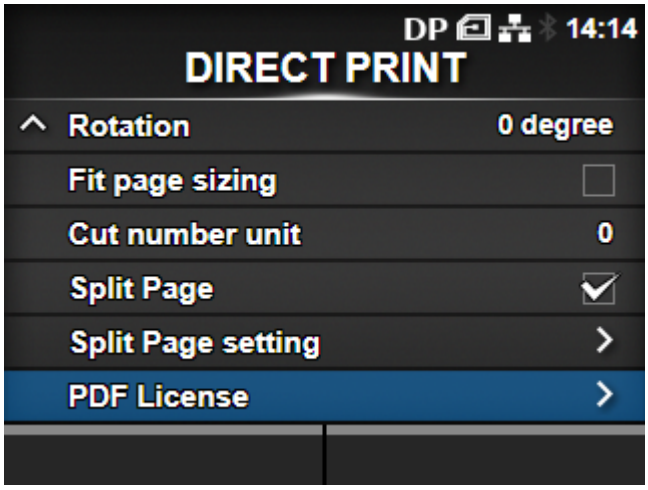
3. **Select [Applications] using the ◀/▶ buttons, then press the ↵ button.**



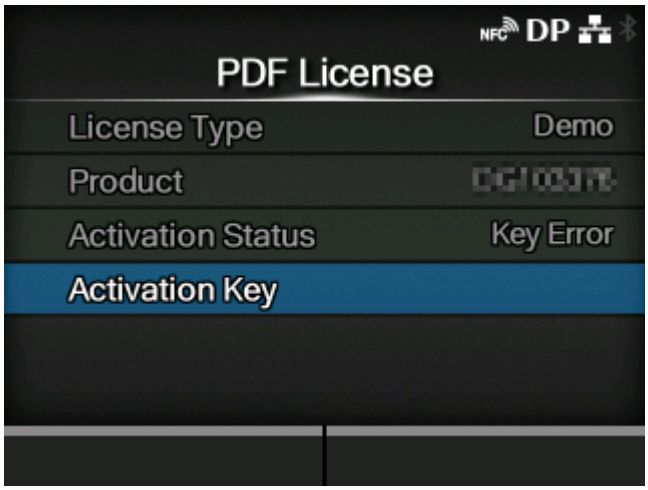
4. Select [DIRECT PRINT] using the ▲/▼ buttons, then press the ↵ button.



5. Select [PDF License] using the ▲/▼ buttons, then press the ↵ button.

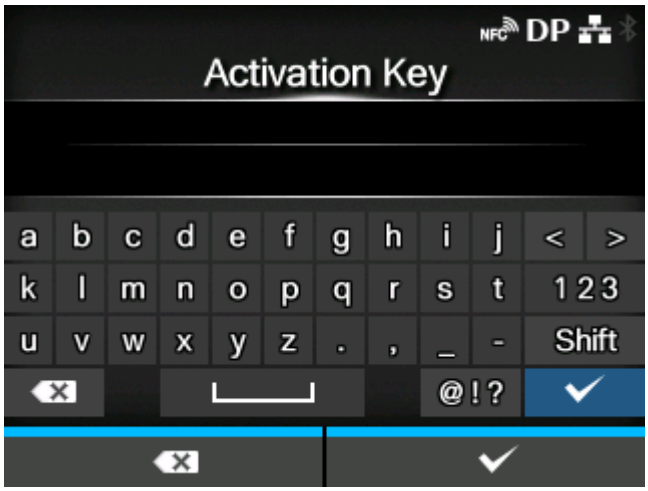


6. Select [Activation Key] using the ▲/▼ buttons, then press the ↵ button.



7. Enter the license activation key. Select a character using the ◀/▶/▲/▼ buttons, then press the ↵ button to enter the character on the text box.

The activation key is an 8-digit number issued by the license management server.



8. Press the / button to select to save the entered activation key.

The [Activation Status] will show [Activated] if the activation key matches.

- [License Type], [Product] and [Activation Status] are read-only.
- The initial [License Type] is [Demo] and the [Activation Status] shows [Not Activated].
- The [Activation Status] will show [Key Error] if the activation key does not match.

Initial Printer Settings

- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

To print the PDF data properly, you need to perform the following initial printer settings:

1. Make sure that the PDF direct print mode is enabled.

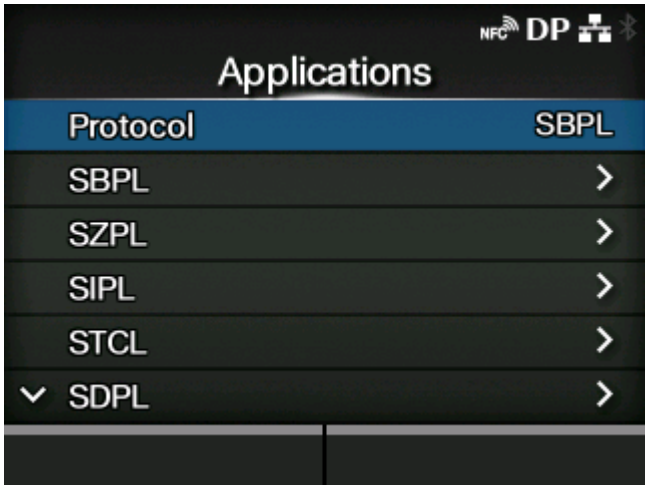
After the PDF Direct Print firmware is installed on the printer, the direct print mode is enabled by default.

The **DP** (Direct Print) status icon is shown on the status bar at the top of the display.

If the **DP** status icon is not shown, you can enable the direct print mode in the [Settings] > [Applications] > [DIRECT PRINT] menu. Select [Enable] to show the [Enable] menu and select [Enabled].

2. Set the print language to SBPL.

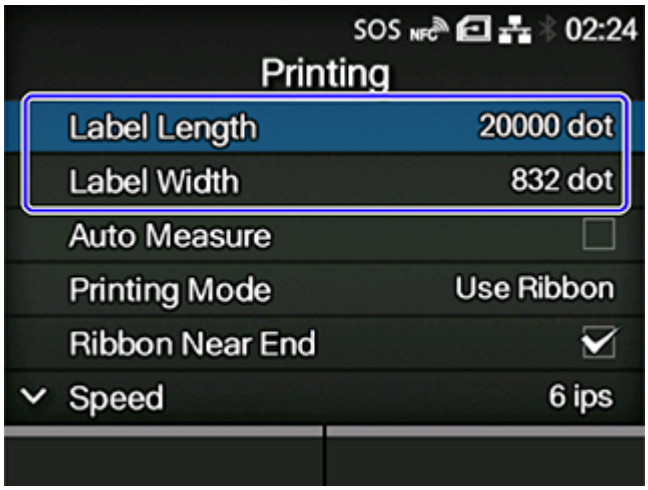
PDF Direct Print only works on SBPL (SATO Barcode Printer Language) protocol. You need to set the printer language to SBPL in the [Settings] > [Applications] > [Protocol] menu.



- Do not set the [Protocol] to [AUTO].

3. Set the label size.

Set the length and width of the label in the [Settings] > [Printing] > [Label Length] and the [Settings] > [Printing] > [Label Width] menus.



- The Auto Measure function is not recommended to be used for PDF direct print. Disable the [Auto Measure] and set the [Label Length] and [Label Width] of the label accordingly.

4. Set other printer settings to match the label.

Set the following printer settings based on the label used.

- [Settings] > [Printing] > [Printing Mode]
- [Settings] > [Printing] > [Speed]
- [Settings] > [Printing] > [Sensor Type]
- [Settings] > [Printing] > [Darkness]

- Please refer to the CL4NX/CL6NX operator manual, CL4NX Plus/CL6NX Plus operator manual or S84NX/S86NX operator manual for more detailed information.

  Click the link below for the CL4NX/CL6NX operator manual.

  https://www.manual.sato-global.com/printer/cl4nx_cl6nx/main/index.html

  Click the link below for the CL4NX Plus/CL6NX Plus operator manual.

  https://www.manual.sato-global.com/printer/clnxplus/main/index.html

  Click the link below for the S84NX/S86NX operator manual.

  https://www.manual.sato-global.com/printer/s8nx/en/main/index.html

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Sending PDF Data to Printer

You need to set up the connection between your source (i.e. core IT system, PC application, mobile device, cloud, etc.) and the printer via the supported connectivity. The available interfaces (LAN, WLAN, USB, Bluetooth, RS-232C, IEEE 1284 and others) are depending on the printer.

Supported Print Data

- The PDF Direct Print function enables you to print documents and graphic data without using printer commands such as SBPL commands. The supported document format is PDF.
- Make sure that the font data is embedded in the PDF file. Otherwise, the data might not be printed correctly due to the printer will substitute the original font with its internal font.
- Do not use outlined PDF data as this will result in a larger file size. Recommended using PDF data (ISO 32000-1) that is not outlined.
- The maximum available file size that can be sent depends on the printer’s memory. The recommended PDF file size is less than 50 MB.

Various Printout Settings

Rotating the Page Orientation

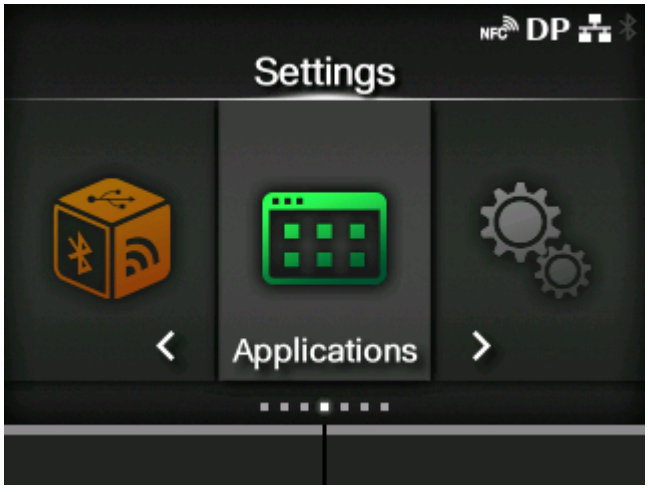
- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

You can specify the rotating angle of the page orientation for PDF direct printing.

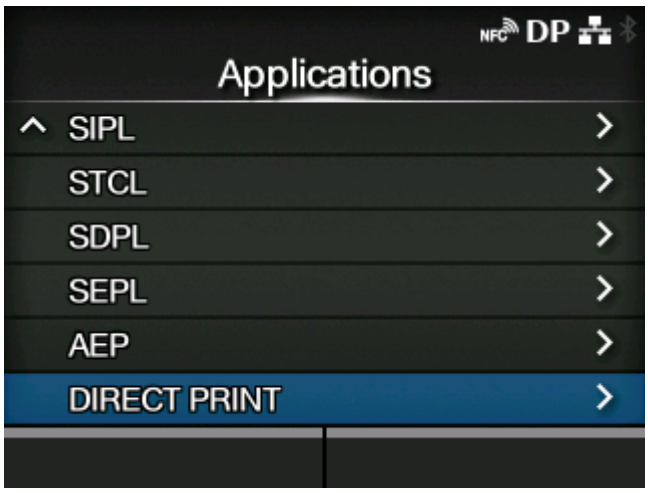
The setting procedure for rotating the page orientation is as follows:

1. **When the printer is in Online mode, press the ⏯ button to change to Offline mode.**
2. **Press the ↵ button to show the [Settings] mode.**

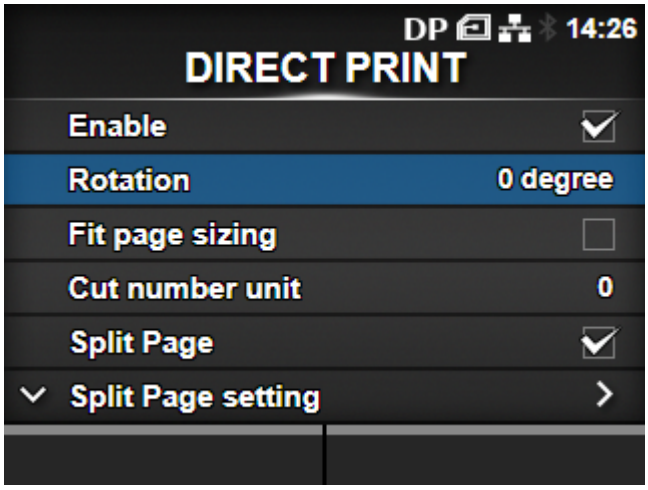
3. **Select [Applications] using the ◀/▶ buttons, then press the ↵ button.**



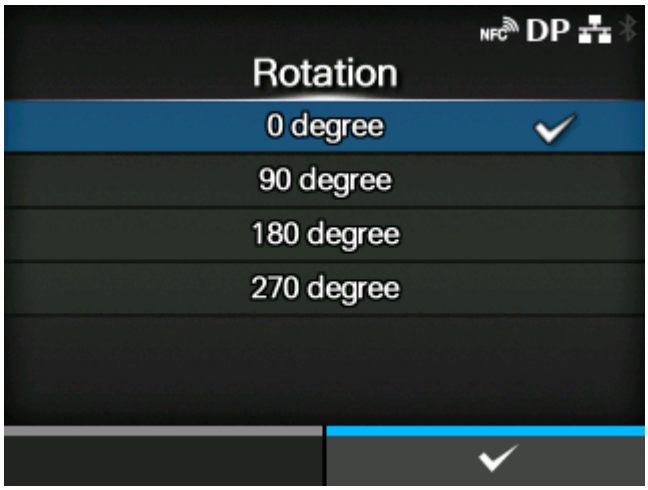
4. **Select [DIRECT PRINT] using the ▲/▼ buttons, then press the ↵ button.**



5. **Select [Rotation] using the ▲/▼ buttons, then press the ↵ button.**



6. **Select the rotating angle of the page orientation using the ▲/▼ buttons.**



The options are as follow:

[0 degree]

Prints the page without rotation.

[90 degree]

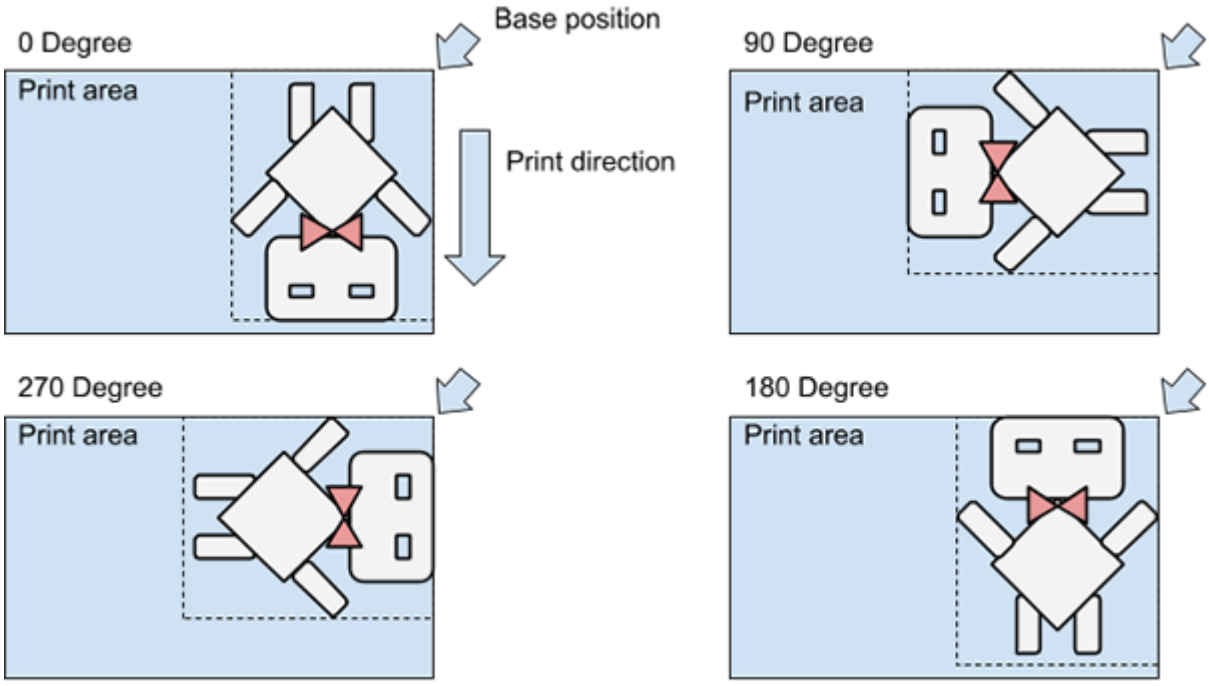
Rotates the page orientation 90 degrees clockwise.

[180 degree]

Rotates the page orientation 180 degrees.

[270 degree]

Rotates the page orientation 270 degrees clockwise.



7. **Press the / button or button to save the setting.**
8. **Press the button to change to Offline mode.**
9. **Press the button again to change to Online mode.**

You can print to check the page orientation.

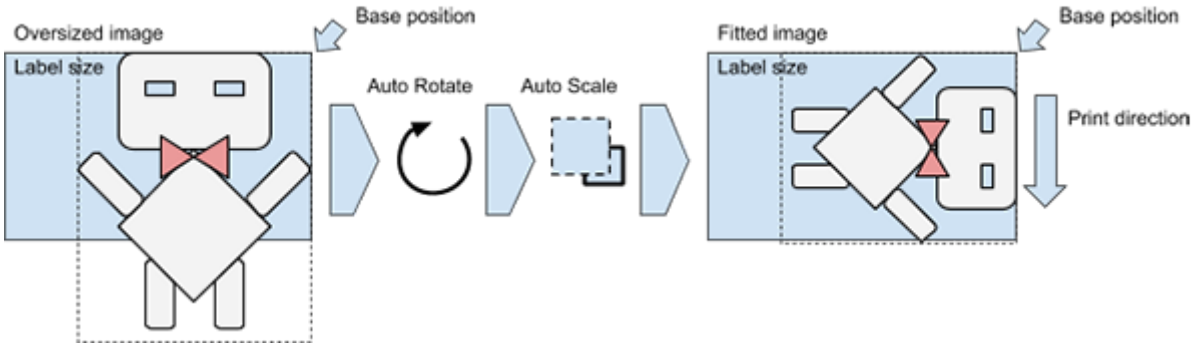
- The rotating angle cannot be set if the [Fit page sizing] is enabled.
- The initial setting of [Rotation] is 0 degrees.

Resizing the Image to Fit the Page

- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

By enabling the [Fit page sizing] function, the printer automatically rotates, enlarges or reduces the print image to best fit the label page size.

This function is convenient for correcting the cropped printout if the print image is too big for the label size, or removing the whitespace if the print image is too small for the label size.

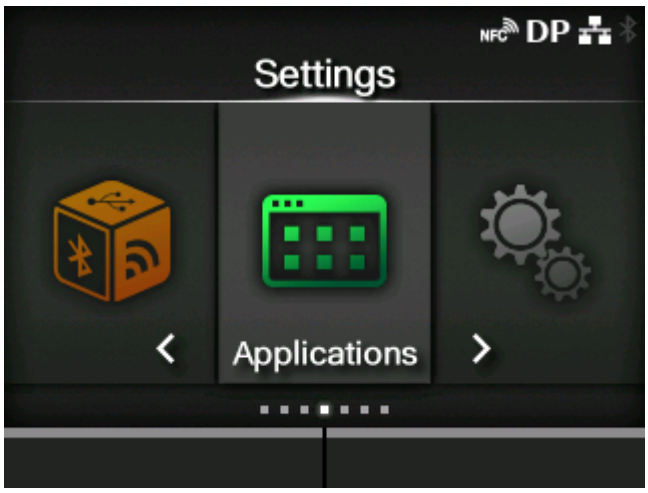


To enable this function, perform the following procedure.

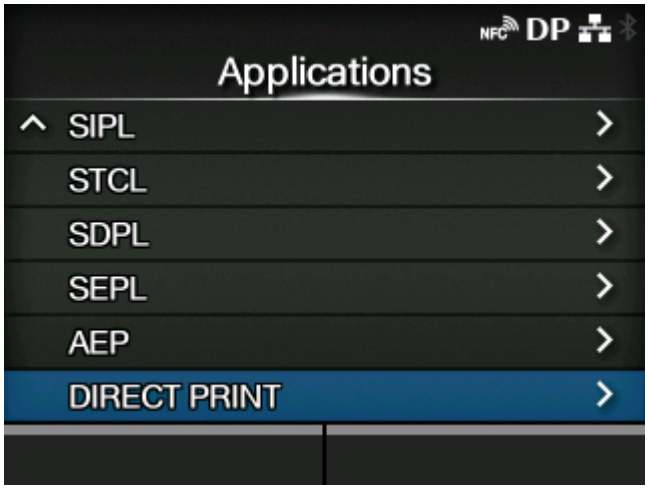
1. **When the printer is in Online mode, press the button to change to Offline mode.**

2. **Press the button to show the [Settings] mode.**

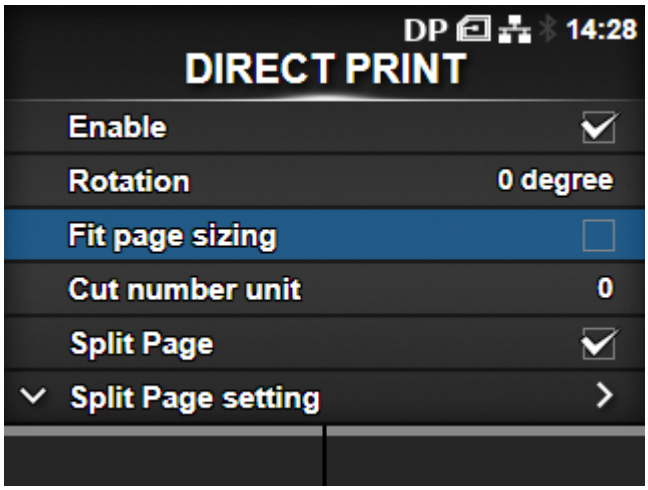
3. **Select [Applications] using the ◀/▶ buttons, then press the ↵ button.**



4. **Select [DIRECT PRINT] using the ▲/▼ buttons, then press the ↵ button.**

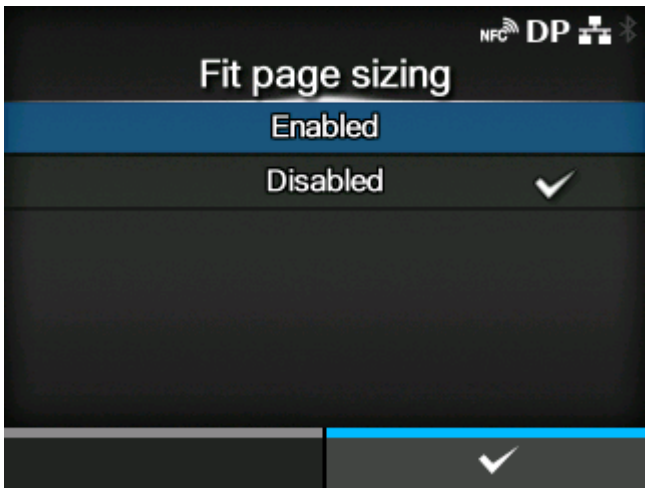


5. **Select [Fit page sizing] using the ▲/▼ buttons, then press the ↵ button.**



The [Fit page sizing] screen appears.

6. **Select [Enabled] using the / buttons.**



7. **Press the / button or button to save the setting.**

8. **Press the button to change to Offline mode.**

9. **Press the button again to change to Online mode.**

You can print to check the print image.

- When the [Fit page sizing] is enabled, the settings for the [Rotation] are invalid.
- The initial setting of [Fit page sizing] is disabled.

Specifying the Number of Labels Printed Before Cut (CL4NX/CL6NX/CL4NX Plus/CL6NX Plus)

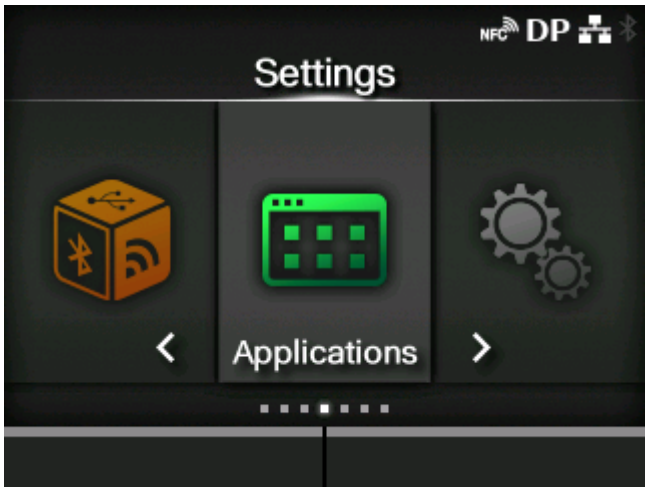
You can set to cut the label after the specified number of printouts are printed from a single data source.

- This function is not applicable to S84NX/86NX series printers.

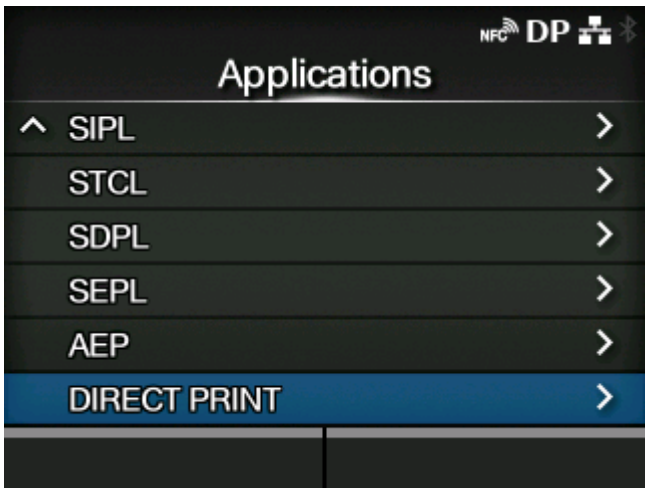
The setting procedure for specifying the [Cut number unit] is as follows:

1. **When the printer is in Online mode, press the button to change to Offline mode.**
2. **Press the button to show the [Settings] mode.**

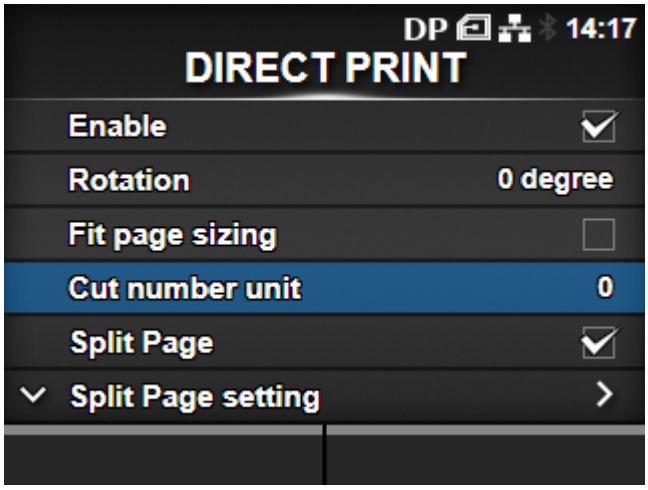
3. **Select [Applications] using the / buttons, then press the button.**



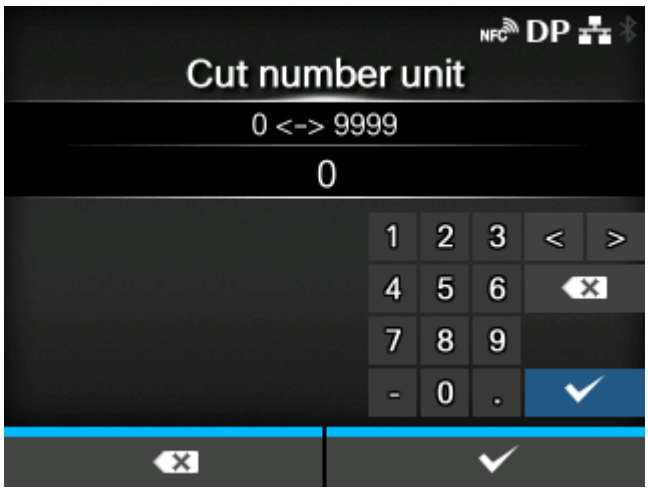
4. **Select [DIRECT PRINT] using the ▲/▼ buttons, then press the ↵ button.**



5. **Select [Cut number unit] using the ▲/▼ buttons, then press the ↵ button.**



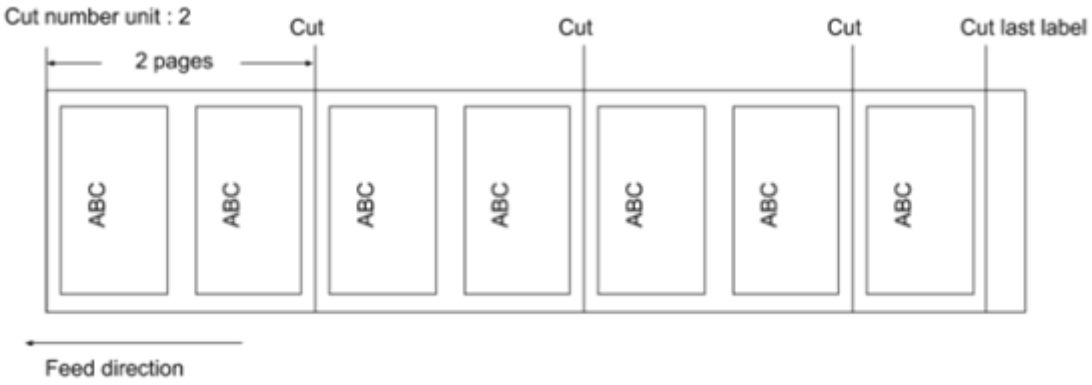
6. **Set the [Cut number unit] value. Select a number using the ◀/▶/▲/▼ buttons, then press the ↵ button to enter the number on the text box.**



The setting range of the [Cut number unit] is from 0 to 9999.

If 0 or 1 is set, the printer will print and cut for each printout.

The printer will cut the last printout of the print data regardless of the specified number of [Cut number unit] as shown in the diagram below.



7. **Press the button to save the value.**

8. **Press the button to change to Offline mode.**

9. **Press the button again to change to Online mode.**

You can print and check the cutting operation.

- This cutting feature only takes effect when the [Print Mode] is set as [Cutter], [Cut & Print], or [Partial cutter].
- The initial setting of [Cut number unit] is 0.
- If the split function is enabled, the maximum [Cut number unit] is set at 1.

Splitting Images to Print Individually

- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

By enabling the [Split Page] function, the printer can split the image of the PDF document and print them individually as shown below.

This function can also apply to the multiple pages PDF document.

If there is a blank split page, the printer will skip printing the blank label.

- If the printer operates on PDF Direct Print [Demo] mode, the printer will not skip printing the blank label.

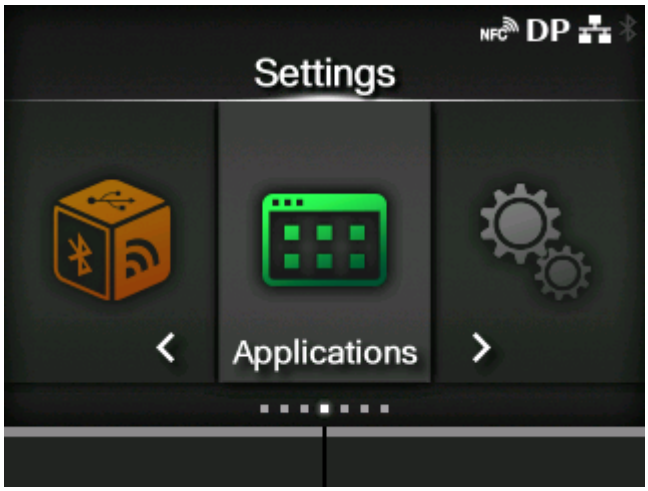
The number of split images, the print order, and the margins can be set in the [Split Page setting] menu.

To enable the [Split Page] function, perform the following procedure.

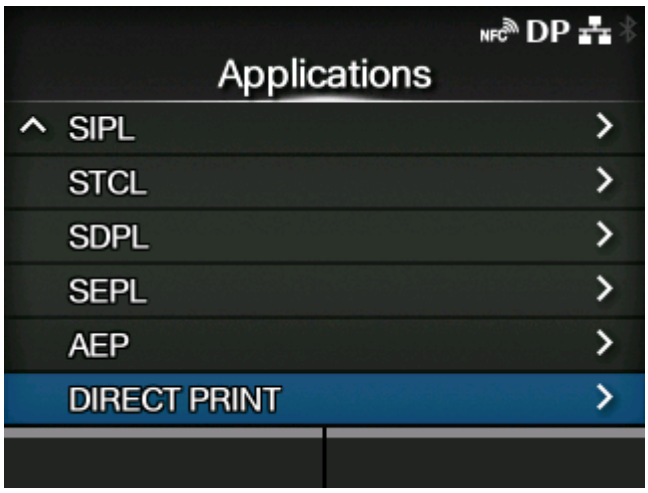
1. **When the printer is in Online mode, press the ⏯ button to change to Offline mode.**

2. **Press the ↵ button to show the [Settings] mode.**

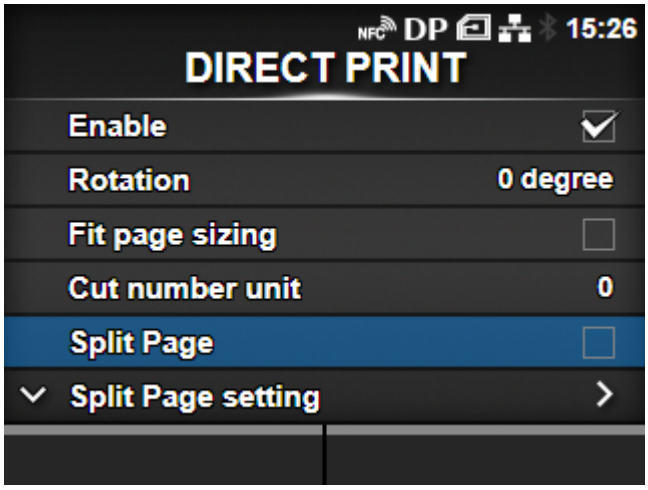
3. **Select [Applications] using the ◀/▶ buttons, then press the ↵ button.**



4. **Select [DIRECT PRINT] using the ▲/▼ buttons, then press the ↵ button.**

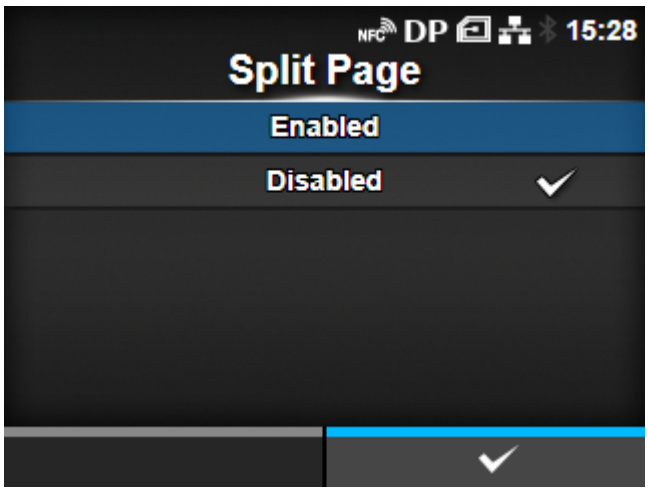


5. **Select [Split Page] using the ▲/▼ buttons, then press the ↵ button.**



The [Split Page] screen appears.

6. **Select [Enabled] using the ▲/▼ buttons.**



7. **Press the ◁/▷ button or ↵ button to save the setting.**

8. **Press the ▼ button to select [Split Page setting] for more settings of the split print function.**

   Refer to Configuring Split Page Settings.

9. **After configuring the [Split Page setting] items, send the PDF data to the printer for printing.**

- When the printer is processing the split print function, the split print icon is shown on the status bar at the top of the display.

Configuring Split Page Settings

Test Printing for Split Print Function

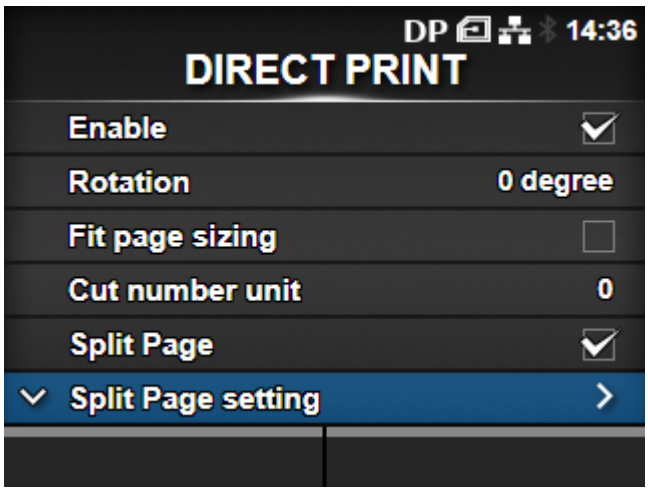
- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

By enabling the [Split test] mode, you can perform test printing for the split print function. When the PDF data is sent to the printer, only the split images of the first page of the PDF document are printed.

This is useful for checking the printout after configuring the items in the [Split Page setting] menu.

To enable the [Split test] mode, perform the following procedure.

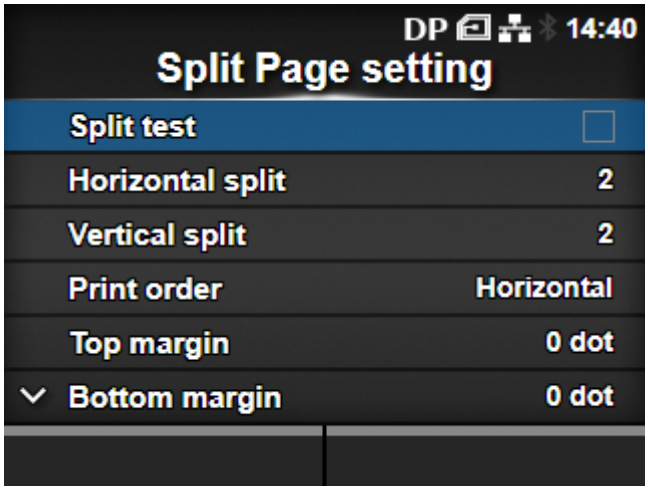
1. **In the [Settings] > [Applications] > [DIRECT PRINT] menu, select [Split Page setting] using the ▲/▼ buttons.**



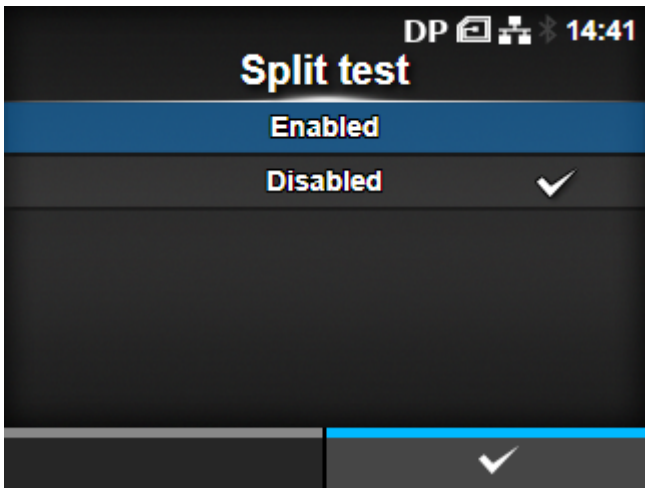
2. **Press the ↵ button.**

   The [Split Page setting] screen appears.

3. **Select [Split test] using the ▲/▼ buttons, then press the ↵ button.**

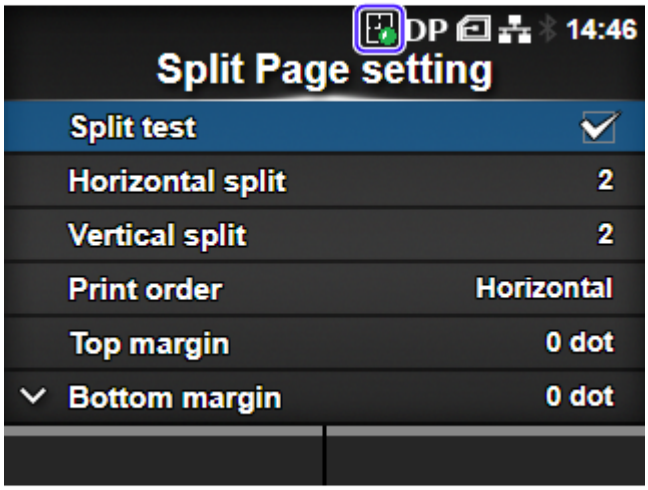


4. **Select [Enabled] using the / buttons.**



5. **Press the / button or button to save the setting.**

When the [Split test] mode is enabled, the split test icon is shown on the status bar at the top of the display.



6. **Send the PDF data to the printer for test printing.**

- After performing the test print, you must disable the [Split test] mode to resume back to the actual printing of the split print function.

Specifying the Number of Split Images

- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

You can specify the number of split images on the page of the PDF document with the [Horizontal split] and [Vertical split] settings in the [Split Page setting] menu.

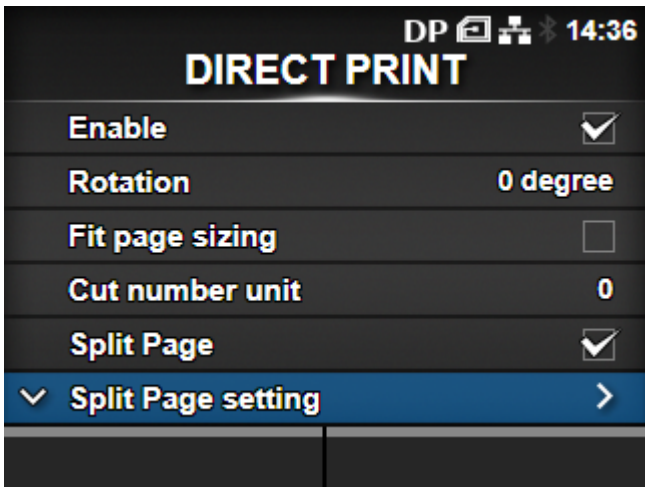
The [Horizontal split] specified the number of images to be split horizontally across the page.

The [Vertical split] specified the number of images to be split vertically down the page.

In this examaple,
Set the [Horizontal split] as 2.
Set the [Vertical split] as 5.

The setting procedure for specifying the number of split images is as follows:

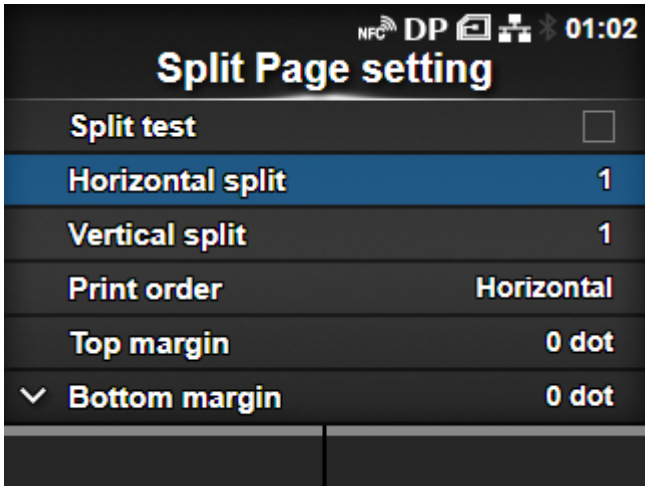
1. **In the [Settings] > [Applications] > [DIRECT PRINT] menu, select [Split Page setting] using the ▲/▼ buttons.**



2. **Press the ↵ button.**

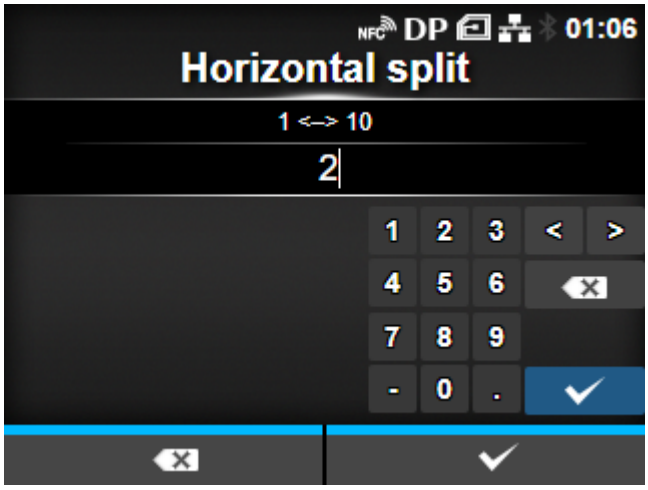
The [Split Page setting] screen appears.

3. **Select [Horizontal split] using the ▲/▼ buttons, then press the ↵ button.**



The [Horizontal split] screen appears.

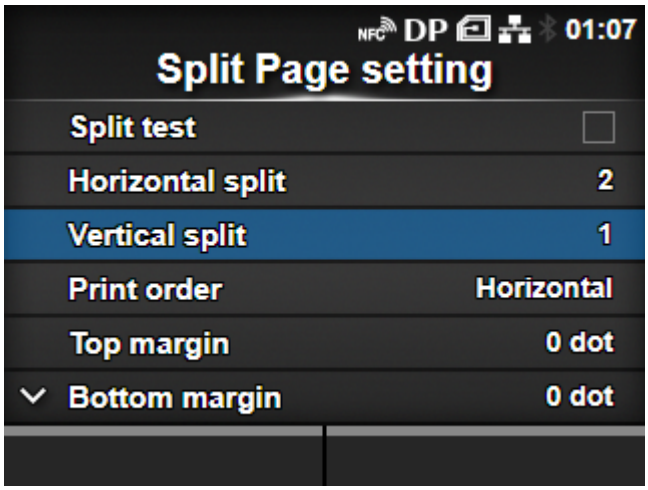
4. **Set the [Horizontal split] value. Select a number using the ◀/▶/▲/▼ buttons, then press the ↵ button to enter the number on the text box.**



The setting range of the [Horizontal split] is from 1 to 10.

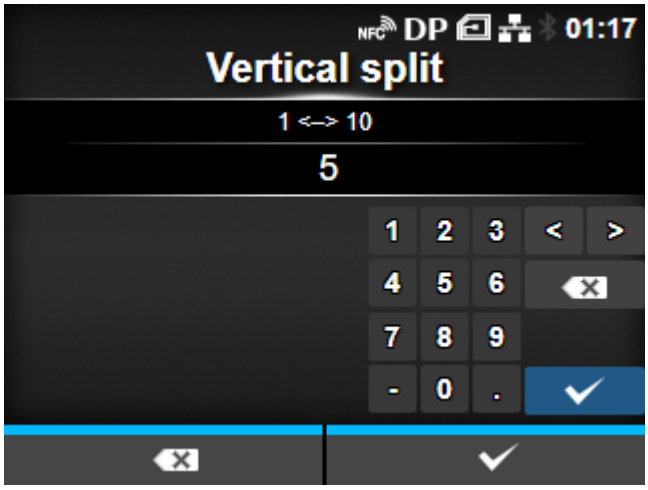
5. **Press the ▭/▭ button to save the value.**

6. **Select [Vertical split] using the ▲/▼ buttons, then press the ↵ button.**



The [Vertical split] screen appears.

7. **Set the [Vertical split] value. Select a number using the ◀/▶/▲/▼ buttons, then press the ↵ button to enter the number on the text box.**



The setting range of the [Vertical split] is from 1 to 10.

8. **Press the ▭/▭ button to save the value.**

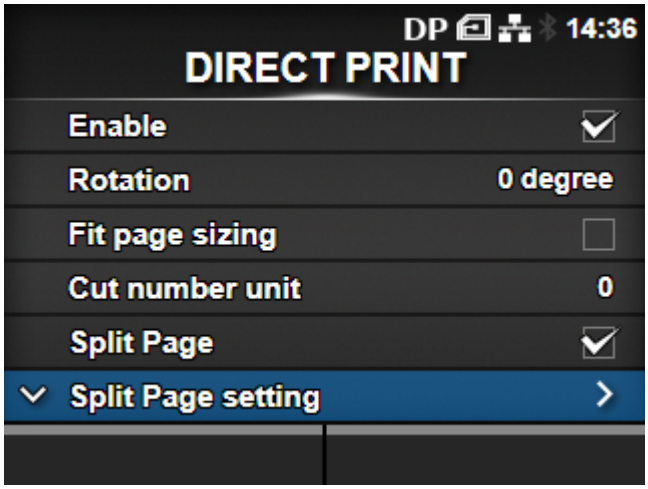
Setting the Print Order of the Split Images

- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

You can set the sequence of the split images to be printed out.

The setting procedure for the print order of the split images is as follows:

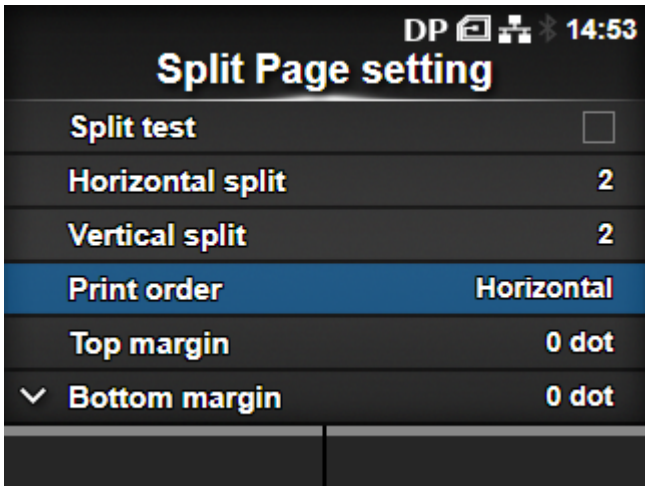
1. **In the [Settings] > [Applications] > [DIRECT PRINT] menu, select [Split Page setting] using the ▲/▼ buttons.**



2. **Press the ↵ button.**

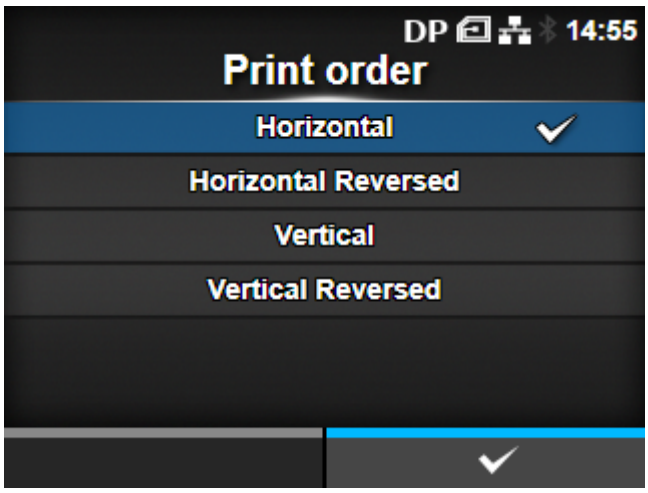
The [Split Page setting] screen appears.

3. **Select [Print order] using the ▲/▼ buttons, then press the ↵ button.**



The [Print order] screen appears.

4. **Select the printing sequence of the split images using the ▲ / ▼ buttons.**



The options are as follow:

[Horizontal]

The printing sequence of the split images is from top left to top right, then bottom left to bottom right.

[Horizontal Reversed]

The printing sequence of the split images is from top right to top left, then bottom right to bottom left.

[Vertical]

The printing sequence of the split images is from top left to bottom left, then top right to bottom right.

[Vertical Reversed]

The printing sequence of the split images is from top right to bottom right, then top left to bottom left.

- **Horizontal**
  1 → 2 → 3 → 4

- **Horizontal Reversed**
  2 → 1 → 4 → 3

- **Vertical**
  1 → 3 → 2 → 4

- **Vertical Reversed**
  2 → 4 → 1 → 3

5. **Press the** **/** **button or** **button to save the setting.**

Setting the Margins of the PDF Document for Split Print Function

- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

1. **Measure the margins of the PDF document using the Measuring Tool of the Adobe Acrobat Reader software.**

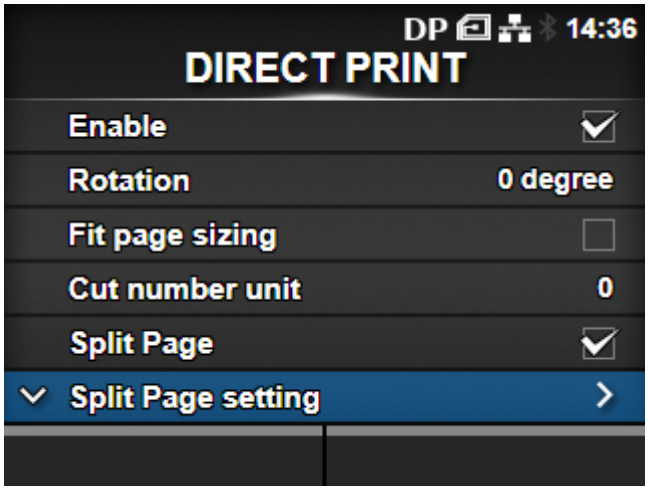
   The margins of the original PDF document must be measured correctly to determine the values for entering to the [Split Page setting] menu.

   Refer to the procedure of Measuring the Margin of the PDF Document.

2. **Calculate the margins, if required, for entering the values to the [Split Page setting] menu.**

   Refer to the calculation method in Calculating the Margins for Split Page Settings.

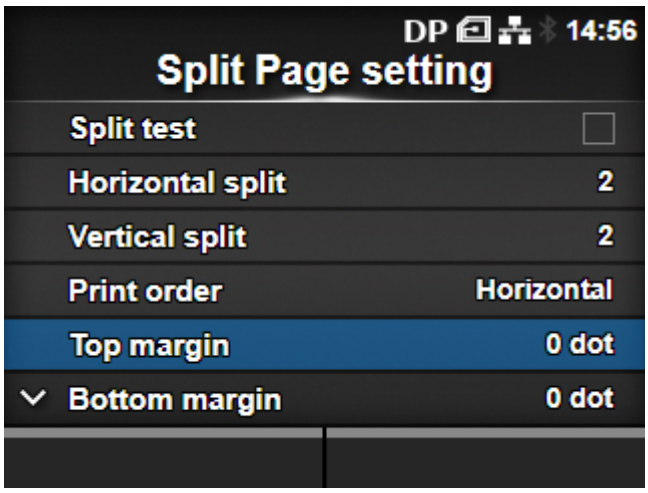
3. **In the [Settings] > [Applications] > [DIRECT PRINT] menu, select [Split Page setting] using the ▲/▼ buttons.**



4. **Press the ↵ button.**

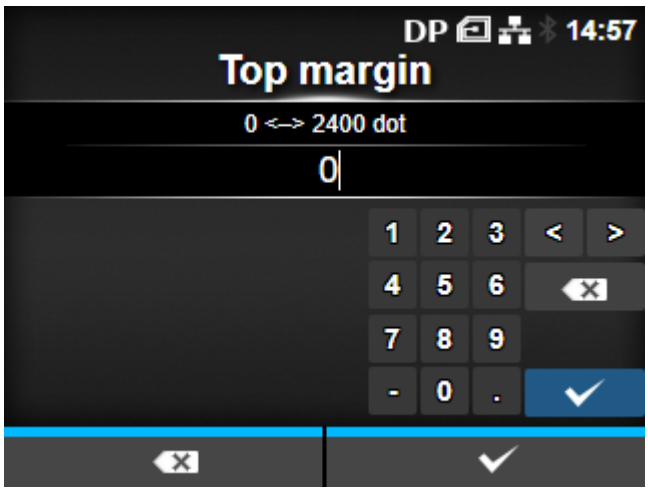
   The [Split Page setting] screen appears.

5. **Select [Top margin] using the ▲/▼ buttons, then press the ↵ button.**



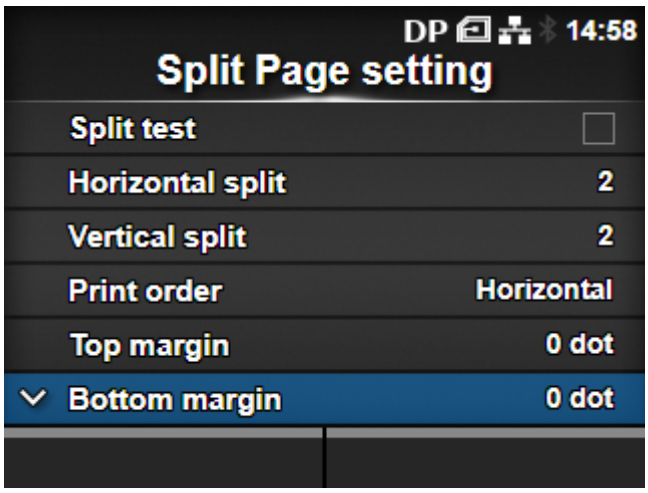
The [Top margin] screen appears.

6. **Set the [Top margin] value. Select a number using the ◀/▶/▲/▼ buttons, then press the ↵ button to enter the number on the text box.**



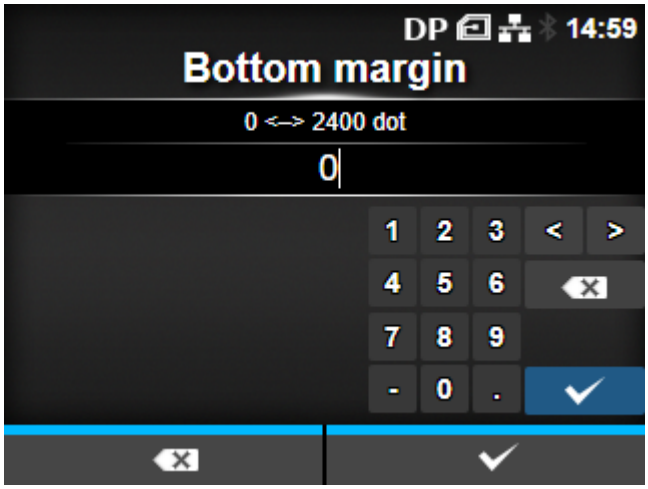
7. **Press the ▬/▭ button to save the value.**

8. **Select [Bottom margin] using the ▲/▼ buttons, then press the ↵ button.**



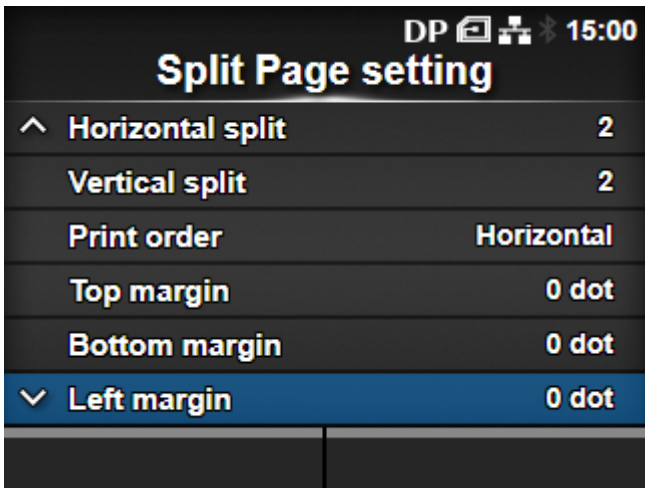
The [Bottom margin] screen appears.

9. **Set the [Bottom margin] value. Select a number using the ◀/▶/▲/▼ buttons, then press the ↵ button to enter the number on the text box.**



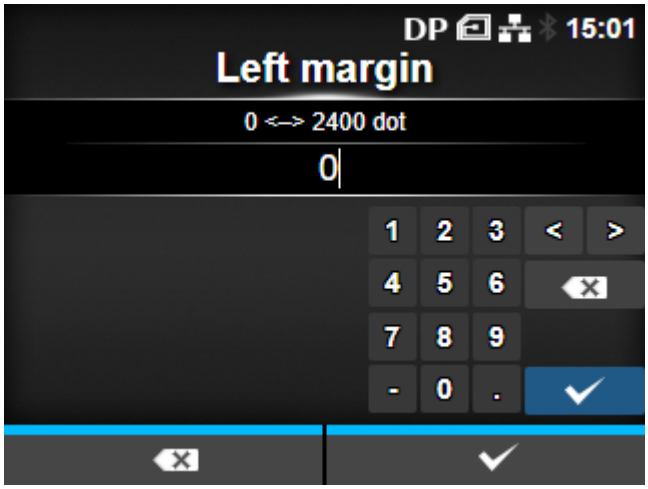
10. **Press the ▬/▭ button to save the value.**

11. **Select [Left margin] using the ▲/▼ buttons, then press the ↵ button.**



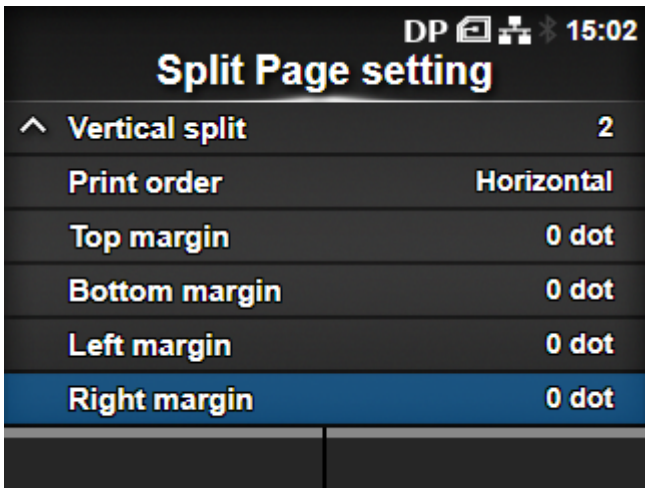
The [Left margin] screen appears.

12. **Set the [Left margin] value. Select a number using the ◀/▶/▲/▼ buttons, then press the ↵ button to enter the number on the text box.**



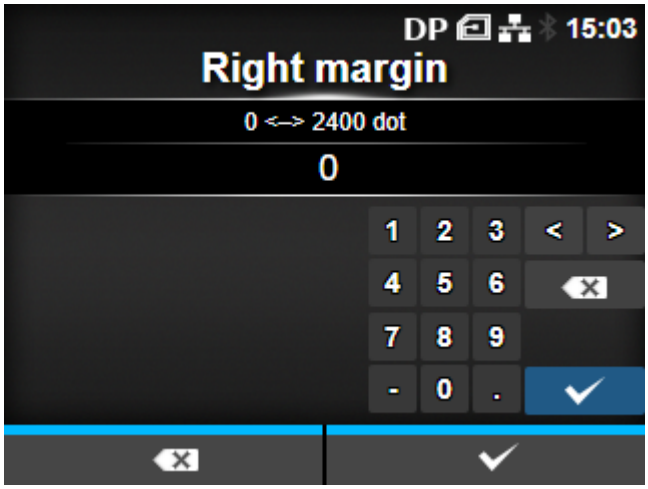
13. **Press the ▬/▬ button to save the value.**

14. **Select [Right margin] using the ▲/▼ buttons, then press the ↵ button.**



The [Right margin] screen appears.

15. **Set the [Right margin] value. Select a number using the ◀/▶/▲/▼ buttons, then press the ↵ button to enter the number on the text box.**



16. **Press the ▬/▭ button to save the value.**

- You can change the units to dots, " (inches), or mm in the [Settings] > [System] > [Regional] > [Unit] screen.
- The setting range of the margins is as follows:

Resolution	CL4NX/CL4NX Plus/ S84NX	CL6NX/CL6NX Plus/ S86NX
203 dpi (1 dot = 0.125 mm (0.0049"))	0 to 800 dots	0 to 800 dots
305 dpi (1 dot = 0.083 mm (0.0033"))	0 to 1200 dots	0 to 1200 dots
609 dpi (1 dot = 0.042 mm (0.0017"))	0 to 2400 dots	-

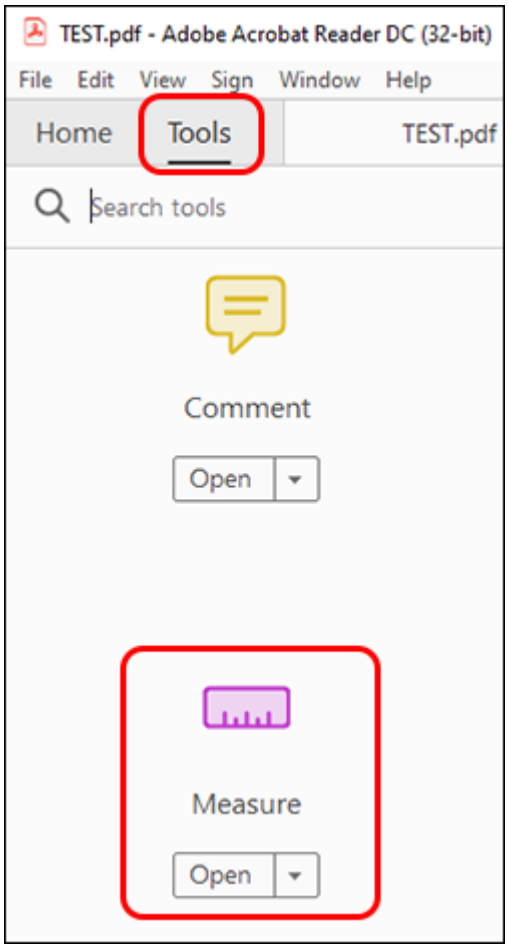
Measuring the Margin of the PDF Document

This is a recommended guide to measure the margins of the PDF document using Adobe Acrobat Reader DC software.

To get the latest version of the free Adobe Acrobat Reader software, go to https://www.adobe.com/

- Do not manually measure the printed PDF document as office automation printers may shrink or enlarge the PDF documents accordingly. This measurement may not be accurate for margins setting.

1. **Open the PDF document using the Adobe Acrobat Reader software.**
2. **Click the Tools tab on the toolbar and select Measure.**

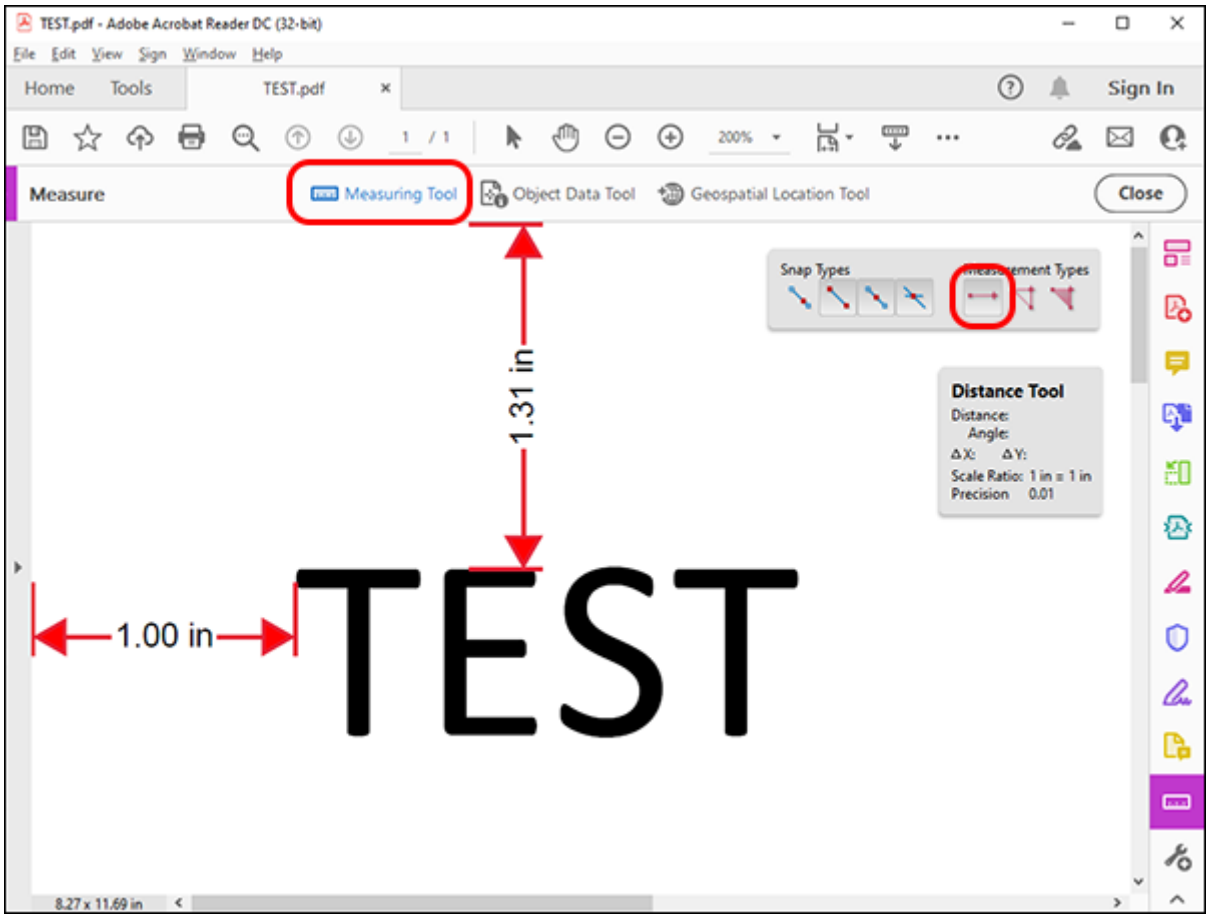


The measurement toolset is shown in the secondary toolbar.

3. **In the secondary toolbar, click Measuring Tool.**

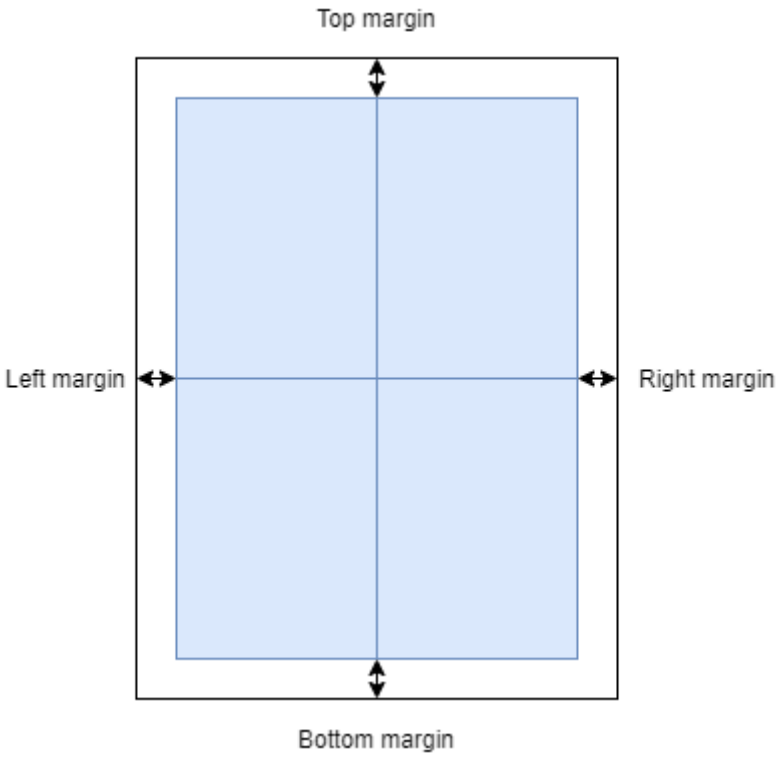
The Measuring toolbar and the Measurement Info panel are shown.

4. **Use the Distance Tool to measure the margins of the page.**



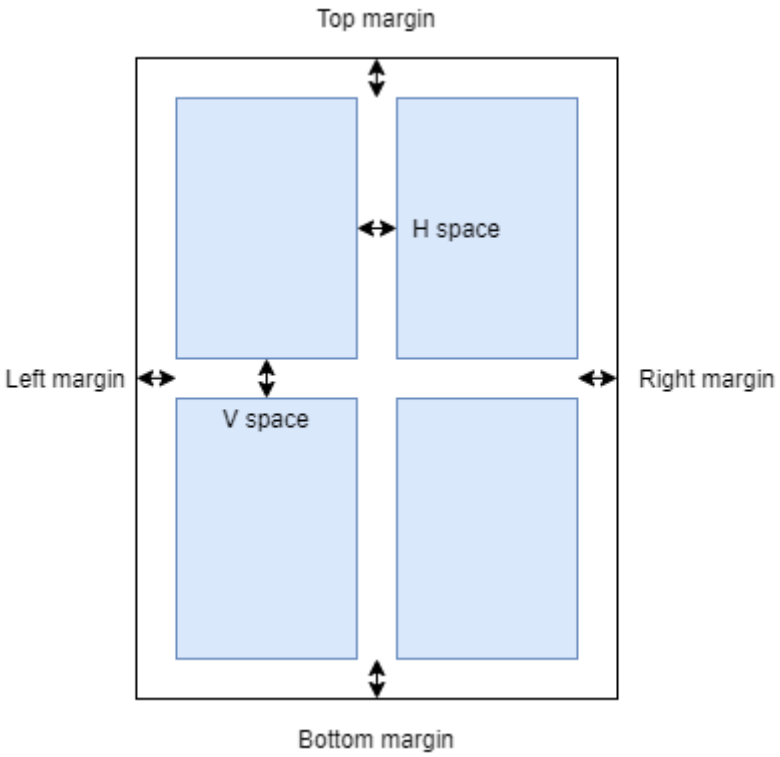
For PDF documents with no space in between the images

Measure the top margin, bottom margin, left margin and right margin of the page.



For PDF documents with space in between the images

Measure the top margin, bottom margin, left margin and right margin of the page, and measure the H space and V space in between the images.



5. **Record all the measurements and proceed to the following procedure accordingly.**

For PDF documents with no space in between the images

You can use the measured values to enter [Top margin], [Bottom margin], [Left margin], and [Right margin] in the [Split Page setting] menu accordingly.

Proceed to step 3 of Setting the Margins of the PDF Document for Split Print Function.

For PDF documents with space in between the images

Using the values that you have measured, calculate the values to be entered in the [Split Page setting] menu.

Refer to the calculation method in Calculating the Margins for Split Page Settings.

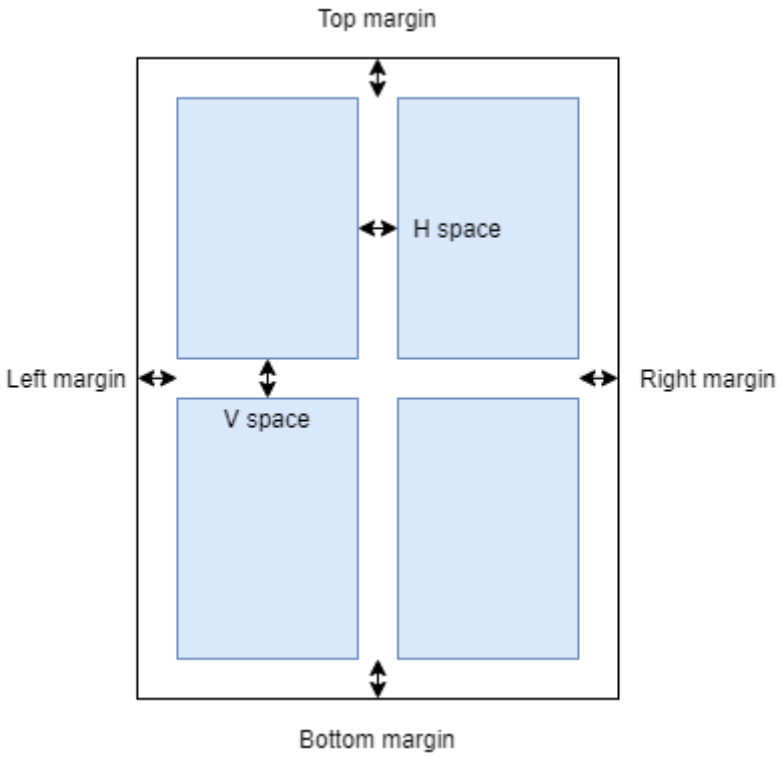
Calculating the Margins for Split Page Settings

When the layout of the PDF document has spacing in between the images, we must calculate the value of the margins to be entered in the [Split Page setting] menu.

You can download our Calculation sheet from this link. https://www.sato-global.com/files/Labelling/PDF%20DP/HowCalculateMargin.xlsx

- This calculation method is suggested for a basic PDF document layout with the same V space and the same H space between the images.
- If you get a negative value from the calculation, you may need other adjustments to properly split the images. Please contact your SATO technical support center or visit https://www.sato-global.com/contact/ for an assistant.

The calculation method is explained as follows.

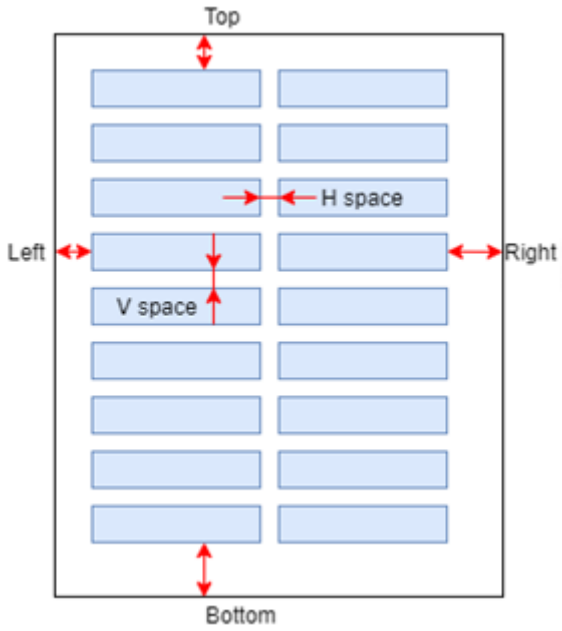


[Top margin]	= measured Top margin - (measured V space / 2)
[Bottom margin]	= measured Bottom margin - (measured V space / 2)
[Left margin]	= measured Left margin - (measured H space / 2)
[Right margin]	= measured Right margin - (measured H space / 2)

Enter the calculated value of the respective margins in the [Split Page setting] menu accordingly.

Example

This example uses the PDF document with [Horizontal split] as 2, [Vertical split] as 9 and there is spacing in between the images.



The measurements taken from the PDF document are recorded as below:

Measured Margins	Measured values (inches)
Top	0.17
Bottom	0.60
Left	0.20
Right	0.18
H space	0.08
V space	0.08

Using the above calculation method, the calculated results are shown as below:

[Top margin]	= 0.17 - (0.08 / 2)	= 0.13 inches
[Bottom margin]	= 0.06 - (0.08 / 2)	= 0.56 inches
[Left margin]	= 0.20 - (0.08 / 2)	= 0.16 inches
[Right margin]	= 0.18 - (0.08 / 2)	= 0.14 inches

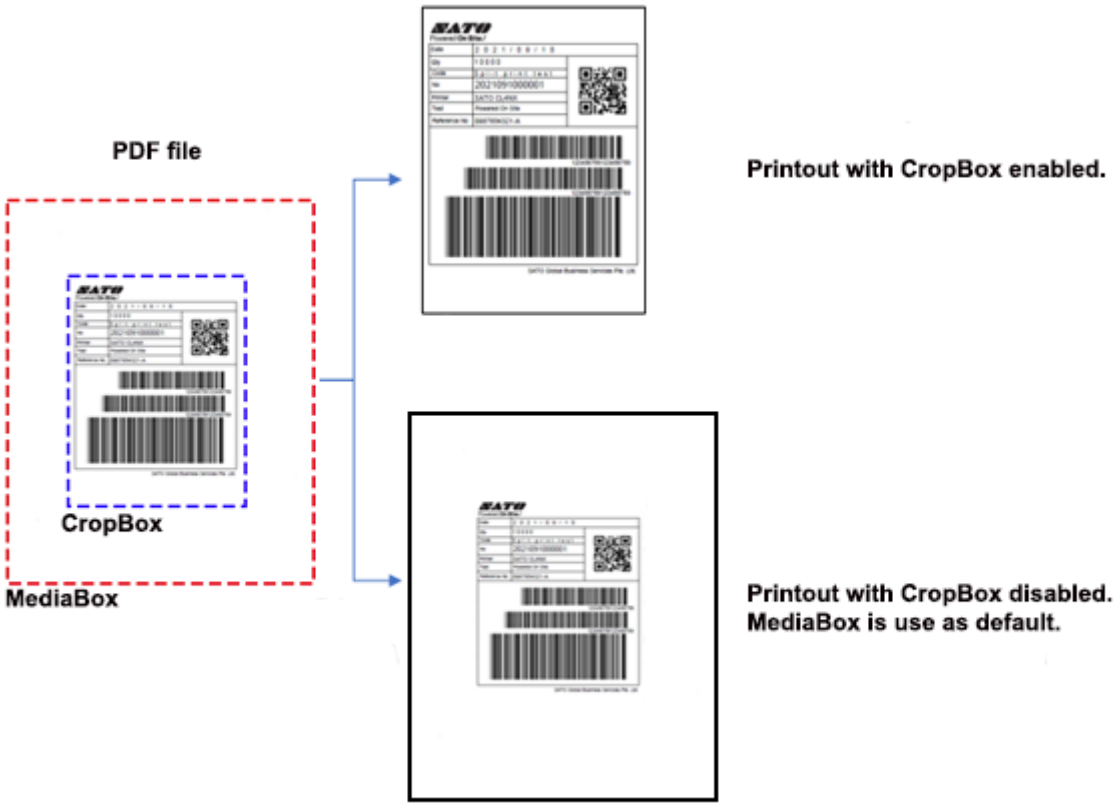
When using the printer with 203 dpi resolution, the converted value from inches to dots are as follow:

[Top margin]	= 0.13 * 203	= 27 dots
[Bottom margin]	= 0.56 * 203	= 114 dots
[Left margin]	= 0.16 * 203	= 33 dots
[Right margin]	= 0.14 * 203	= 29 dots

Using CropBox Mode

- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

By enabling the [Use CropBox] mode, you can print out the contents based on the boundary set if a PDF contains a CropBox definition.

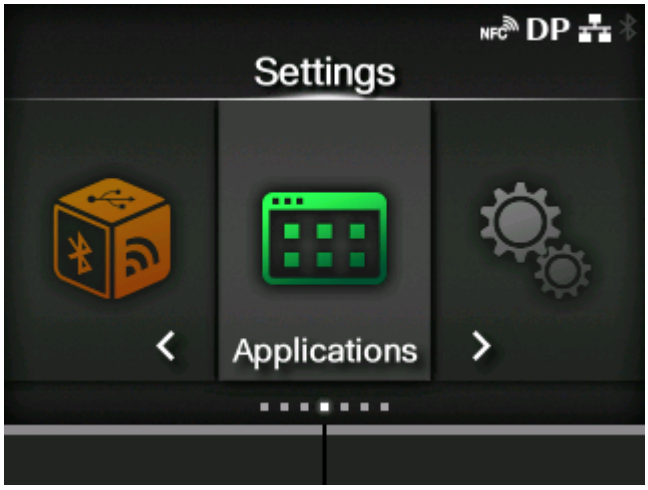


- MediaBox and CropBox standards are based on PDF specification.

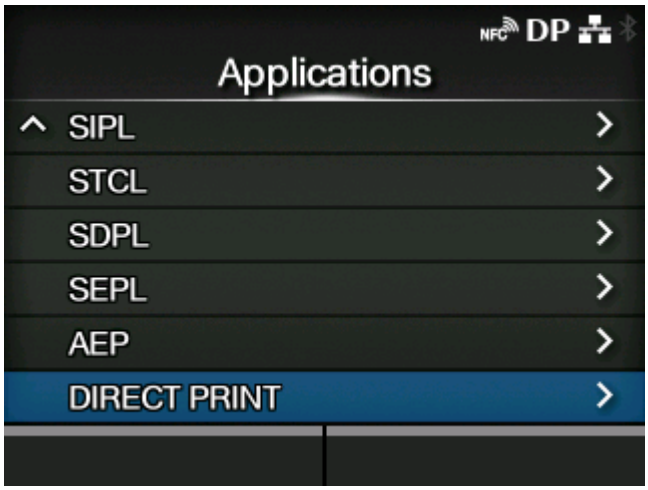
1. **When the printer is in Online mode, press the button to change to Offline mode.**

2. **Press the ↵ button to show the [Settings] mode.**

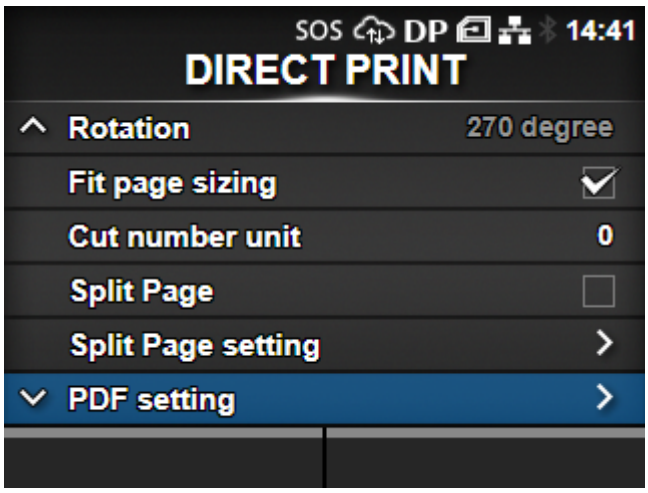
3. **Select [Applications] using the ◀/▶ buttons, then press the ↵ button.**



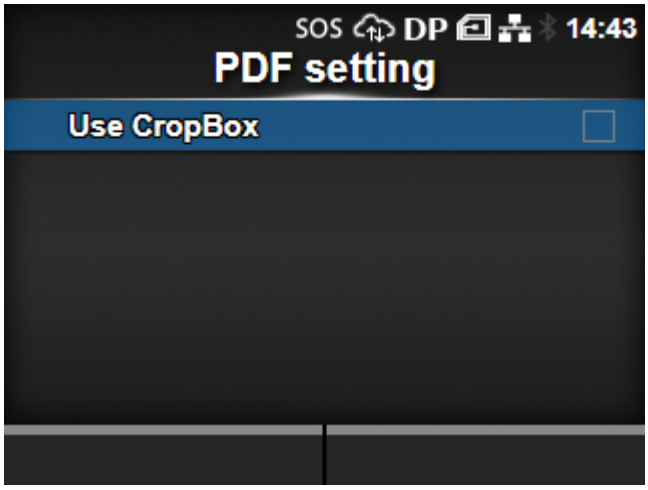
4. **Select [DIRECT PRINT] using the ▲/▼ buttons, then press the ↵ button.**



5. **Select [PDF setting] using the ▲/▼ buttons, then press the ↵ button.**

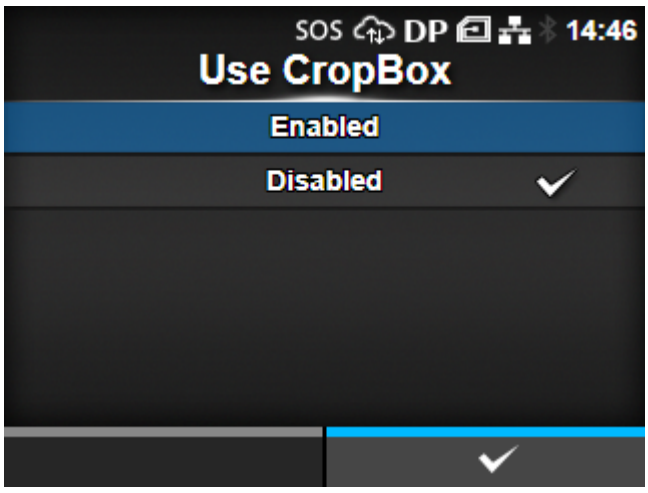


6. **Select [Use CropBox] and press the ↵ button.**



The [Use CropBox] screen appears.

7. **Select [Enabled] using the ▲/▼ buttons.**



8. **Press the ◀/▶ button or ↵ button to save the setting.**

9. **Press the button to change to Offline mode.**

10. **Press the button again to change to Online mode.**

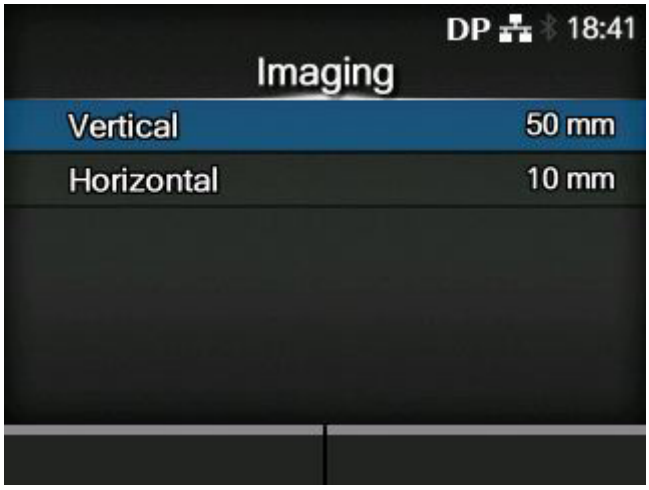
    You can print to check the print image.

Adjusting the Print Image Position

- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

Depending on the PDF data, you may need to adjust the print image position.

You can adjust the print image position in the [Settings] > [Printing] > [Imaging] menu.

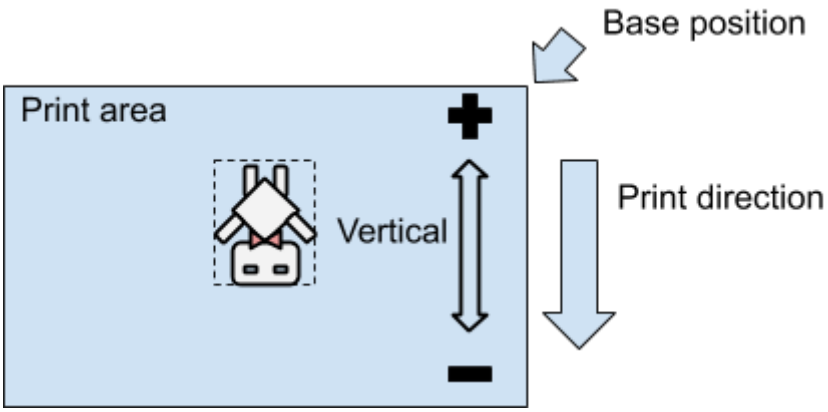


Set the print reference position in the vertical and horizontal directions.

[Vertical]

Set the print position in the vertical direction.

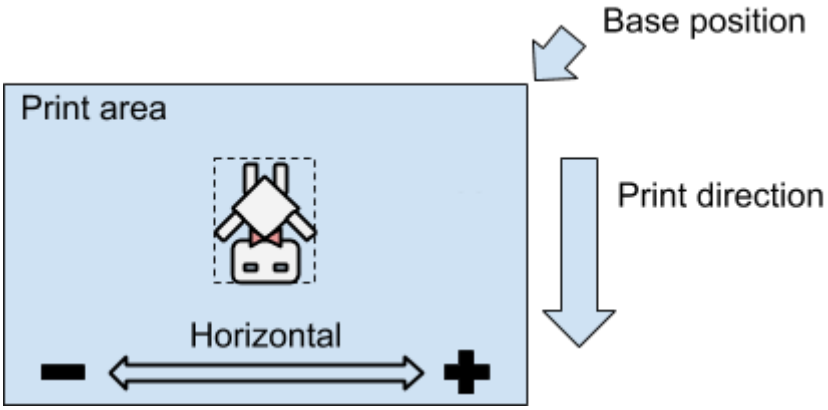
Set the correction value from the print reference position as “-” for the direction of the paper feed and “+” for the direction opposite to the paper feed.



[Horizontal]

Set the print position in the horizontal direction.

Set the correction value from the print reference position when facing the product as “+” to adjust to the right side and “-” to adjust to the left side.



Frequently Asked Questions

Below is some information that may be helpful when using the PDF Direct Print function:

1. **How to reset the printer after a firmware update?**
   You can reset the printer in the [Settings] > [Tools] menu. Select [Reset] to show the [Select] menu, then select the items to be initialized.
   Please refer to the CL4NX/CL6NX operator manual, CL4NX Plus/CL6NX Plus operator manual or S84NX/S86NX operator manual for more detailed information.

   ☞Click the link below for the CL4NX/CL6NX operator manual.

   https://www.manual.sato-global.com/printer/cl4nx_cl6nx/main/index.html

   ☞Click the link below for the CL4NX Plus/CL6NX Plus operator manual.

   https://www.manual.sato-global.com/printer/clnxplus/main/index.html

   ☞Click the link below for the S84NX/S86NX operator manual.

   https://www.manual.sato-global.com/printer/s8nx/en/main/index.html

2. **How to set the application protocol to SBPL?**
   Please refer to step 2 in Initial Printer Settings.

3. **How to set the label size?**
   Please refer to step 3 in Initial Printer Settings.

4. **How to set the image rotation of the page orientation?**
   Please refer to Rotating the Page Orientation.

5. **How can I set the number of labels to be printed before they are cut out from the printer?**
   Please refer to Specifying the Number of Labels Printed Before Cut (CL4NX/CL6NX/CL4NX Plus/CL6NX Plus).

6. **How to split a PDF document into multiple images and print them individually?**
   Please refer to Splitting Images to Print Individually.

7. **How to set the Gap/I-mark sensor?**
   You can set the Gap/I-mark sensor in the [Settings] > [Printing] menu. Select [Sensor Type] to set the sensor type for detecting the label.
   Please refer to the CL4NX/CL6NX operator manual, CL4NX Plus/CL6NX Plus operator manual or S84NX/S86NX operator manual for more detailed information.

   ☞Click the link below for the CL4NX/CL6NX operator manual.

   https://www.manual.sato-global.com/printer/cl4nx_cl6nx/main/index.html

Click the link below for the CL4NX Plus/CL6NX Plus operator manual.

https://www.manual.sato-global.com/printer/clnxplus/main/index.html

Click the link below for the S84NX/S86NX operator manual.

https://www.manual.sato-global.com/printer/s8nx/en/main/index.html

8. **How to activate the PDF Direct Print license?**

   Please refer to License Activation.

9. **Why is the size of the print image shrunk or enlarged?**

   You have enabled the [Fit page sizing] function.
   To disable the [Fit page sizing] function, refer to Resizing the Image to Fit the Page and select [Disabled].

10. **Can I save frequently used settings for different PDF documents?**

    You can save your frequently used setting for different PDF documents in the [Settings] > [Tools] > [Profiles] menu.
    Please refer to the CL4NX/CL6NX operator manual, CL4NX Plus/CL6NX Plus operator manual or S84NX/S86NX operator manual for more detailed information.

    Click the link below for the CL4NX/CL6NX operator manual.

    https://www.manual.sato-global.com/printer/cl4nx_cl6nx/main/index.html

    Click the link below for the CL4NX Plus/CL6NX Plus operator manual.

    https://www.manual.sato-global.com/printer/clnxplus/main/index.html

    Click the link below for the S84NX/S86NX operator manual.

    https://www.manual.sato-global.com/printer/s8nx/en/main/index.html

11. **Why is there extra space before the image?**

    The setting of the label size may be incorrect.
    Set the correct label size. Please refer to step 3 in Initial Printer Settings.

12. **Why some of the texts printed out are different from the image?**

    The font data may not be embedded in the PDF document.
    Please make sure that the font data is embedded in the PDF document before being sent for printing.

13. **Why does the printer only print out the first page of the PDF document in Split Print Function?**

    You may have enabled the [Split test] function.
    To disable the [Split test] function, refer to Test Printing for Split Print Function and select [Disabled].

14. **Why is the print image not printed out or shifted?**

- The PDF document may have the CropBox definition set.

  Enable the [Use CropBox] mode to print the content based on the CropBox definition set in the PDF document. Please refer to Using CropBox Mode.

- The setting of the print reference position may be incorrect or the values are too large.

  You can adjust the print image position in the [Settings] > [Printing] > [Imaging] menu. Please refer to Adjusting the Print Image Position.

15. **Why the PDF document is not printed out when the [Split Page] function is [Enable]?**

    The PDF document may not have the MediaBox definition.
    Set your PDF document with the MediaBox definition using your PDF viewer application.
    Please contact your SATO technical support center for more information.

16. **Why is the blank page of the PDF document not printed out?**

    The blank page skip function is a default function for CL4NX/CL6NX/CL4NX Plus/CL6NX Plus/ S84NX/S86NX series printers.
    Please contact your SATO technical support center for more information if you need to print the blank page.

17. **Why do PDF documents seem to print much slower?**

    If the PDF document contains many objects such as fonts, images, lines and barcodes, the printers may need more time to process.

- The print result varies depending on the PDF document. If you need any further clarification, please contact your SATO technical support center for more information.

PDF Direct Print Menu

This section describes the details of each item in the [DIRECT PRINT] menu.

- The operation using the [DIRECT PRINT] menu can also be performed via a Web configuration page using any browser.

  For detailed information on accessing the Web configuration page, refer to each printer's operator manual.
  Check out the *TOP* > *Various Settings of the Product* > *Configuring the Product Settings from a Web Browser* section of the operator manual.

  Click the link below for the CL4NX/CL6NX operator manual.

  https://www.manual.sato-global.com/printer/cl4nx_cl6nx/main/index.html

  Click the link below for the CL4NX Plus/CL6NX Plus operator manual.

  https://www.manual.sato-global.com/printer/clnxplus/main/index.html

  Click the link below for the S84NX/S86NX operator manual.

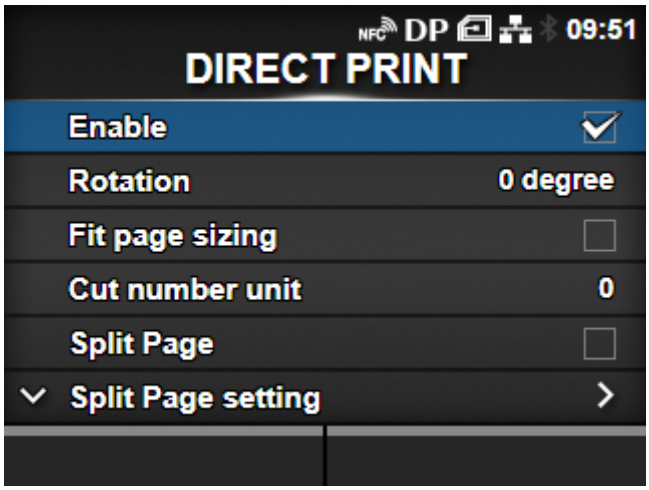
  https://www.manual.sato-global.com/printer/s8nx/en/main/index.html

The [DIRECT PRINT] Menu

- This manual uses screenshots of the CL4NX series printer in its descriptions. The screen is slightly different when using the S84NX/S86NX series printers.

After you have the PDF Direct Print firmware installed in the printer, you can access the [DIRECT PRINT] menu.

In the Offline mode, select [Settings] > [Applications] > [DIRECT PRINT] to show the [DIRECT PRINT] menu.



The following settings are available in the [DIRECT PRINT] menu:

[Enable]

Enable or disable the direct print mode.

- When a check mark shows on the check box of [Enable], the direct print mode is enabled.

  The **DP** (Direct Print) status icon is shown on the status bar at the top of the display.
- When the check box of [Enable] is cleared, the direct print mode is disabled.

  The **DP** status icon is not shown on the status bar at the top of the display.

- After the PDF Direct Print firmware is installed on the printer, the direct print mode is enabled by default.

[Rotation]

Set the rotating angle of the page orientation for PDF direct printing.

The options are as follow:

[0 degree]

Prints the page without rotation.

[90 degree]

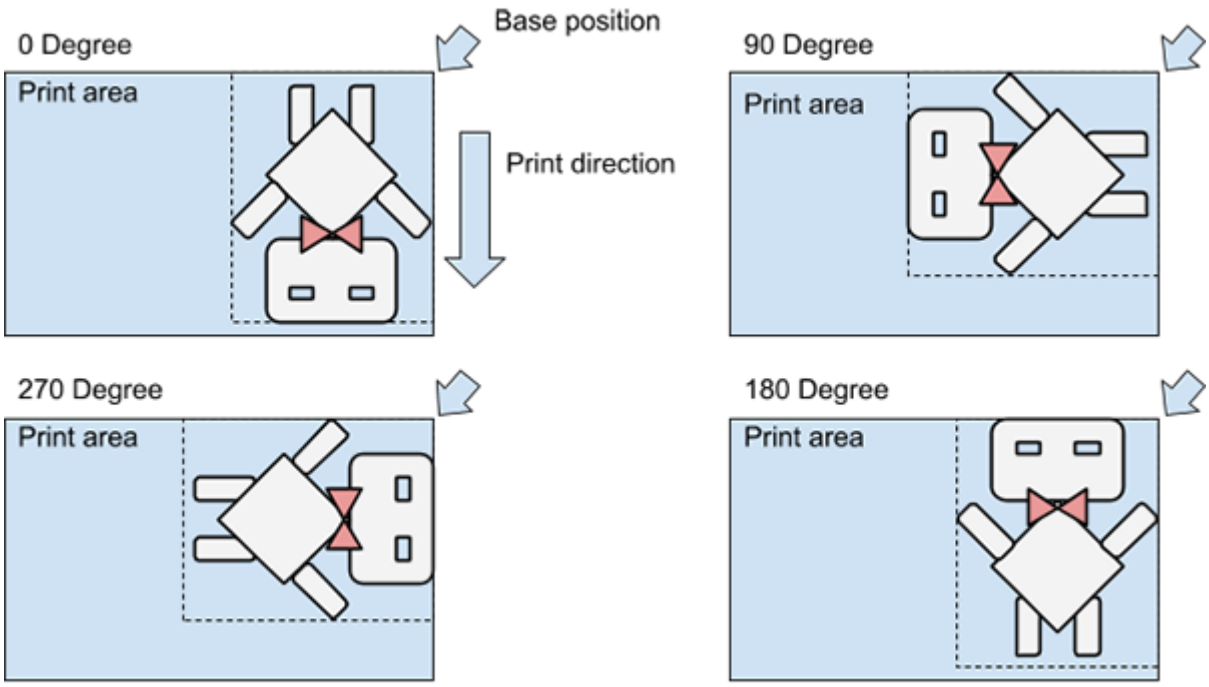
Rotates the page orientation 90 degrees clockwise.

[180 degree]

Rotates the page orientation 180 degrees.

[270 degree]

Rotates the page orientation 270 degrees clockwise.

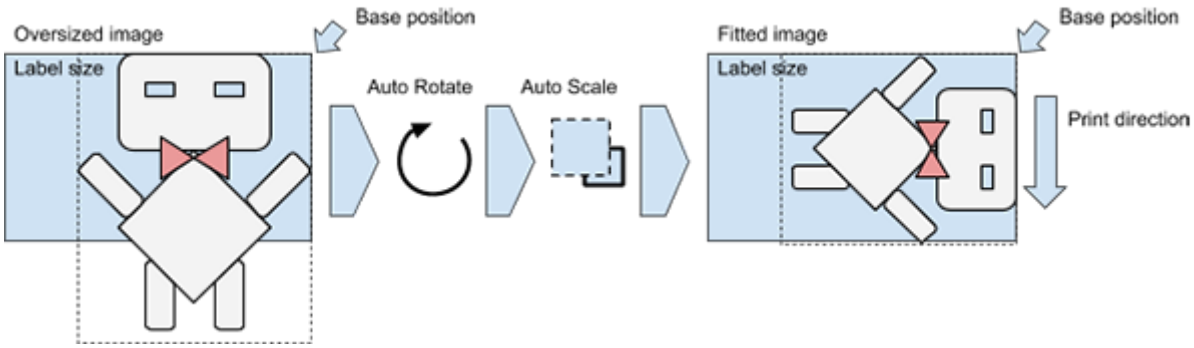


- The rotating angle cannot be set if the [Fit page sizing] is enabled.
- The initial setting of [Rotation] is 0 degrees.

[Fit page sizing]

By enabling the [Fit page sizing] function, the printer automatically rotates, enlarges or reduces the print image to best fit the label page size.

This function is convenient for correcting the cropped printout if the print image is too big for the label size, or removing the whitespace if the print image is too small for the label size.



- When the [Fit page sizing] is enabled, the settings for the [Rotation] are invalid.
- The initial setting of [Fit page sizing] is disabled.

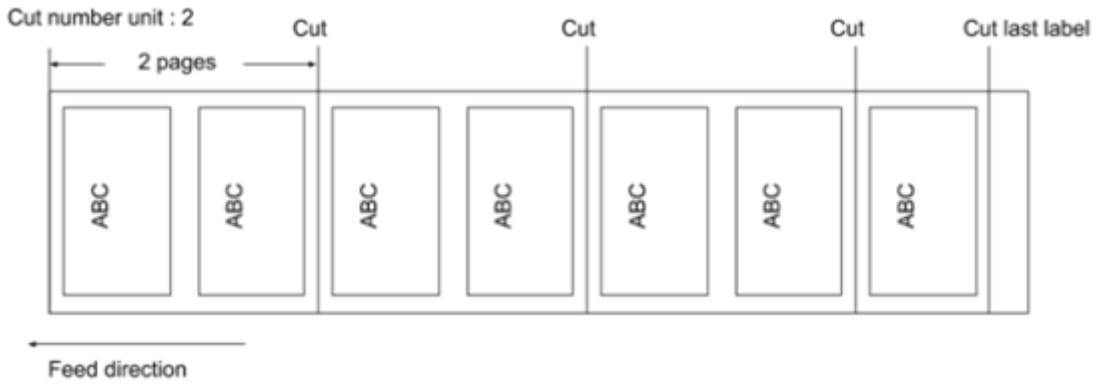
[Cut number unit] (CL4NX/CL6NX/CL4NX Plus/CL6NX Plus only)

You can set to cut the label after the specified number of printouts are printed from a single data source.

The setting range of the [Cut number unit] is from 0 to 9999.

If 0 or 1 is set, the printer will print and cut for each printout.

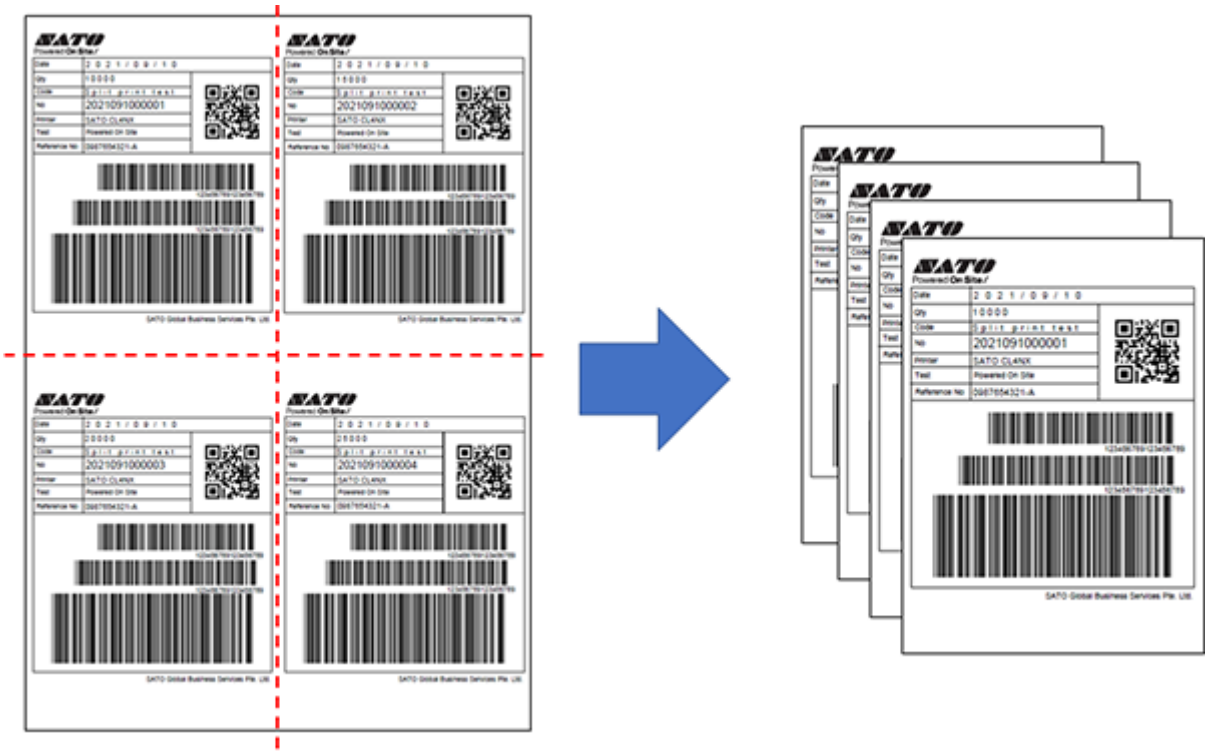
The printer will cut the last printout of the print data regardless of the specified number of [Cut number unit] as shown in the diagram below.



- This cutting feature only takes effect when the [Print Mode] is set as [Cutter], [Cut & Print], or [Partial cutter].
- The initial setting of [Cut number unit] is 0.
- If the split function is enabled, the maximum [Cut number unit] is set at 1.

[Split Page]

By enabling the [Split Page] function, the printer can split the image of the PDF document and print them individually as shown below.



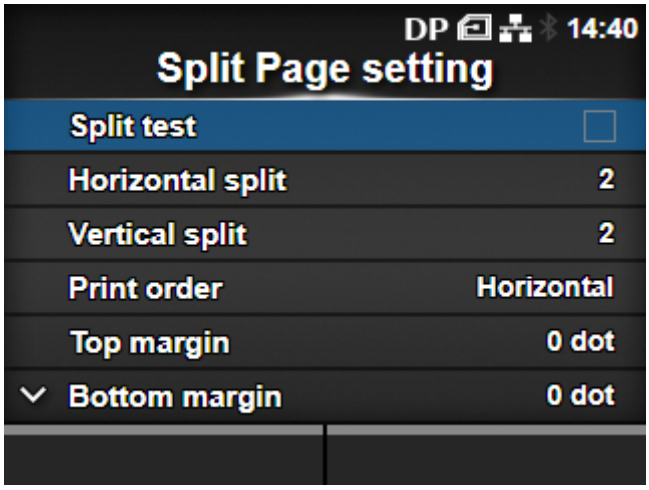
This function can also apply to the multiple pages PDF document.

If there is a blank split page, the printer will skip printing the blank label.

- If the printer operates on PDF Direct Print [Demo] mode, the printer will not skip printing the blank label.

[Split Page setting]

Select to show the [Split Page setting] screen.



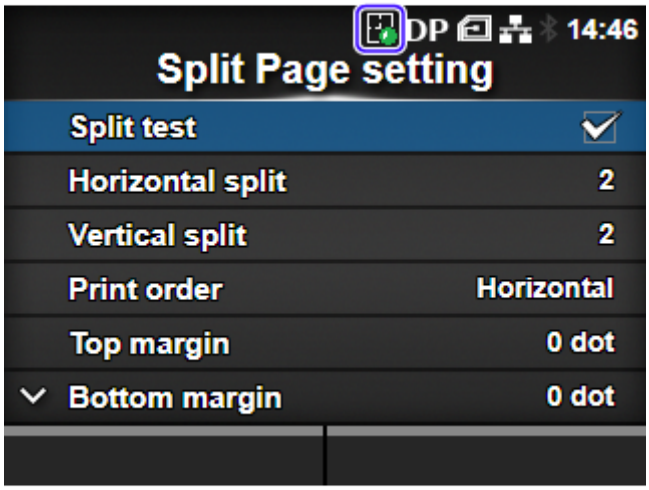
The following information and settings are available in the [Split Page setting] menu:

[Split test]

By enabling the [Split test] mode, you can perform test printing for the split print function. When the PDF data is sent to the printer, only the split images of the first page of the PDF document are printed.

This is useful for checking the printout after configuring the items in the [Split Page setting] menu.

When the [Split test] mode is enabled, the split test icon is shown on the status bar at the top of the display.



- After performing the test print, you must disable the [Split test] mode to resume back to the actual printing of the split print function.

[Horizontal split]

The [Horizontal split] specified the number of images to be split horizontally across the page.

[Vertical split]

The [Vertical split] specified the number of images to be split vertically down the page.

[Print order]

You can set the sequence of the split images to be printed out.

The options are as follow:

[Horizontal]

The printing sequence of the split images is from top left to top right, then bottom left to bottom right.

[Horizontal Reversed]

The printing sequence of the split images is from top right to top left, then bottom right to bottom left.

[Vertical]

The printing sequence of the split images is from top left to bottom left, then top right to bottom right.

[Vertical Reversed]

The printing sequence of the split images is from top right to bottom right, then top left to bottom left.

- **Horizontal**
  1 → 2 → 3 → 4

- **Horizontal Reversed**
  2 → 1 → 4 → 3

- **Vertical**
  1 → 3 → 2 → 4

- **Vertical Reversed**
  2 → 4 → 1 → 3

[Top margin]

Set the top margin for the split print function after proper measurement and calculation to determine the value.

Refer to the following links:

Measuring the Margin of the PDF Document

Calculating the Margins for Split Page Settings

[Bottom margin]

Set the bottom margin for the split print function after proper measurement and calculation to determine the value.

Refer to the following links:

Measuring the Margin of the PDF Document

Calculating the Margins for Split Page Settings

[Left margin]

Set the left margin for the split print function after proper measurement and calculation to determine the value.

Refer to the following links:

Measuring the Margin of the PDF Document

Calculating the Margins for Split Page Settings

[Right margin]

Set the right margin for the split print function after proper measurement and calculation to determine the value.

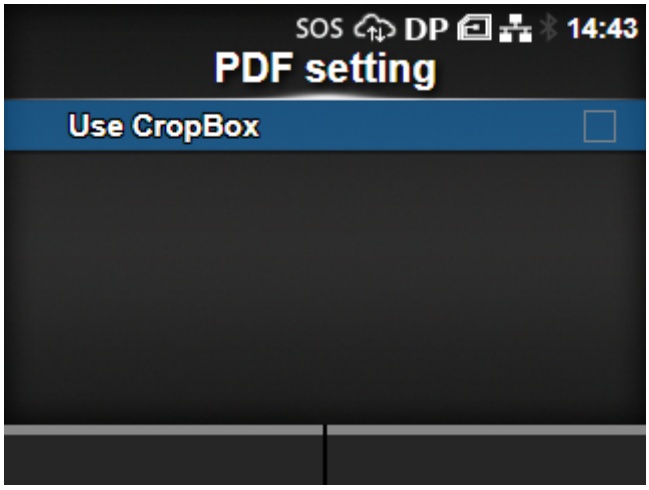
Refer to the following links:

Measuring the Margin of the PDF Document

Calculating the Margins for Split Page Settings

[PDF setting]

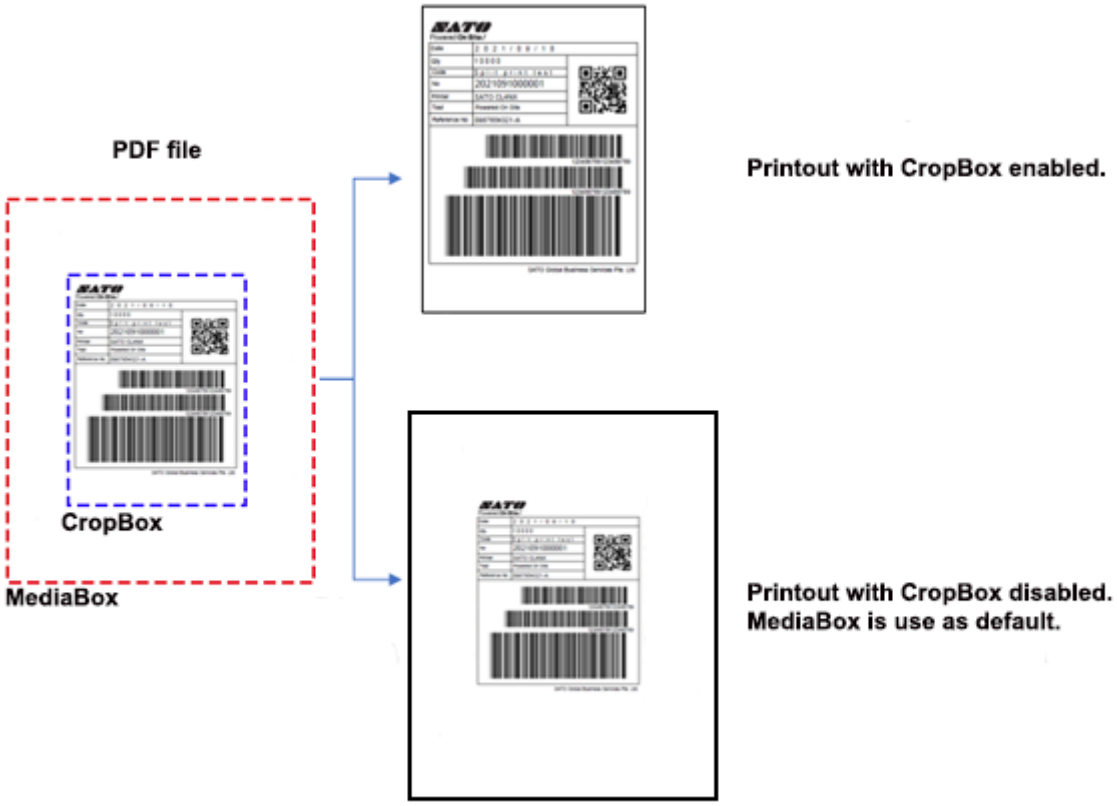
Select to show the [PDF setting] screen.



The following information and settings are available in the [PDF setting] menu:

[Use CropBox]

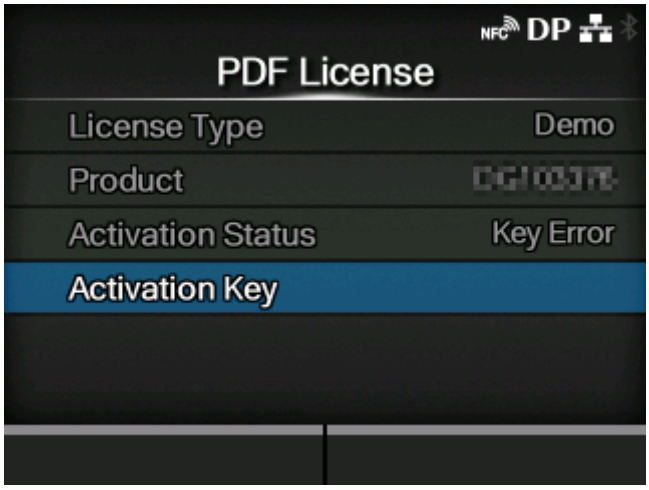
By enabling the [Use CropBox] mode, you can print out the contents based on the boundary set if a PDF contains a CropBox definition.



- MediaBox and CropBox standards are based on PDF specification.

[PDF License]

Select to show the [PDF License] management screen.



The following information and settings are available in the [PDF License] menu:

[License Type]

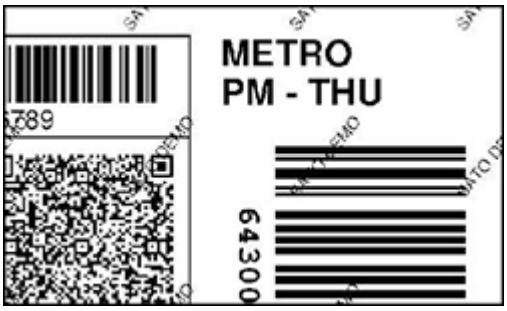
Shows the type of PDF Direct Print license registered for this printer. Once the PDF Direct Print firmware is installed, the printer is initially set as demo mode.

There are three types of licenses available.

[Demo]

If you have not activated the PDF Direct Print license, the printer will work in demo mode.

In the demo mode, PDF printing is possible but the printed content has SATO DEMO watermarks printed across the label.



[Develop]

The development license is only used by SATO resellers and technical support for internal verification without sales. It is strictly not for commercial use.

To activate the license, you need an activation key issued by the license management server.

[Commercial]

The commercial license is for users who purchased the PDF Direct Print.

To activate the license, you need an activation key issued by the license management server.

[Product]

Shows the printer serial number. This serial number is used for registration and generating the license activation key at the license management server.

[Activation Status]

Shows the activation status of the PDF Direct Print license.

There are three types of activation status.

[Not Activated]

Shows when the license is not activated.

[Key Error]

Shows when the entered activation key is wrong or is not registered for this printer serial number.

[Activated]

Shows when the entered activation key is valid and is registered for this printer serial number. The PDF Direct Print license is activated.

[Activation Key]

The [Activation Key] shows only when the PDF Direct Print license is not activated.

Select the [Activation Key] to show the input screen to enter the 8-digit activation key issued by the license management server.

- The license activation should be performed by SATO technical support personnel.

[DEACTIVATE]

This selection item shows only when the PDF Direct Print license is activated.

Select [DEACTIVATE] only if you want to deactivate the license.

When you select [DEACTIVATE], a screen to confirm deactivation appears.

- Make sure that you need to deactivate the license before doing it. Once deactivated, you need to contact SATO technical support personnel to activate the license again.

After you deactivated the license, the [License Type] returns to [Demo] and the [Activation Status] shows [Key Error].

Maintenance Support

SATO provides maintenance support to ensure the reliable operation of your product.

A separate printer maintenance contract bundle is highly recommended for users regardless of the license type of the PDF Direct Print function.

In the event of printer replacement, the user without a maintenance contract will need to purchase a new PDF Direct Print license for the new printer. Whereas, the user who has purchased a maintenance contract can continue using the new printer with the purchased license transferred to it.

SATO technical support personnel will assist to install the firmware, transfer the original license or activate the new license for users.

For details on the maintenance contract, contact your SATO reseller or technical support center for more information.

Contact Information for When You Are in Trouble

Access the following site to send us your questions or comments.

☞ https://www.sato-global.com/contact/