Duplo

from print to documents

INSTRUCTION MANUAL

FOLDER
DUPLO FOLDER

DF-850
DF-870

Original instructions

Be sure to read this manual prior to use.
Please leave this manual at the site of use for easy reference.

Introduction

Thank you for purchasing a Duplo product.

Be sure to read this manual and "Safety Guide A" supplied with this product before use. "Safety Guide A" contains information for correct and safe use of this product.

After reading, leave the manual and "Safety Guide A" at the site of use for easy reference whenever questions related to the product arise in the future.

Symbols

In this manual, several symbols are used to indicate important warnings. Please make sure to read instructions accompanied by these symbols. These symbols have the following meanings.

Describes instructions which must be followed in use.
Be sure to read the instructions to avoid problems due to incorrect operations.

Indicates supplementary or useful information.

Describes names of related items and supplementary instructions.

Trademark

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Safety Precautions

Power supply

- Make sure the power supply used is always within the following range.
  Power supply: 100 to 240 V AC, 50/60 Hz
- When you power other appliances from the same AC outlet, make sure that the combined power consumption does not exceed the power supply capacity.
  Rated power: 125 W
  Rated current: 1.3 to 0.65 A

Operating environment

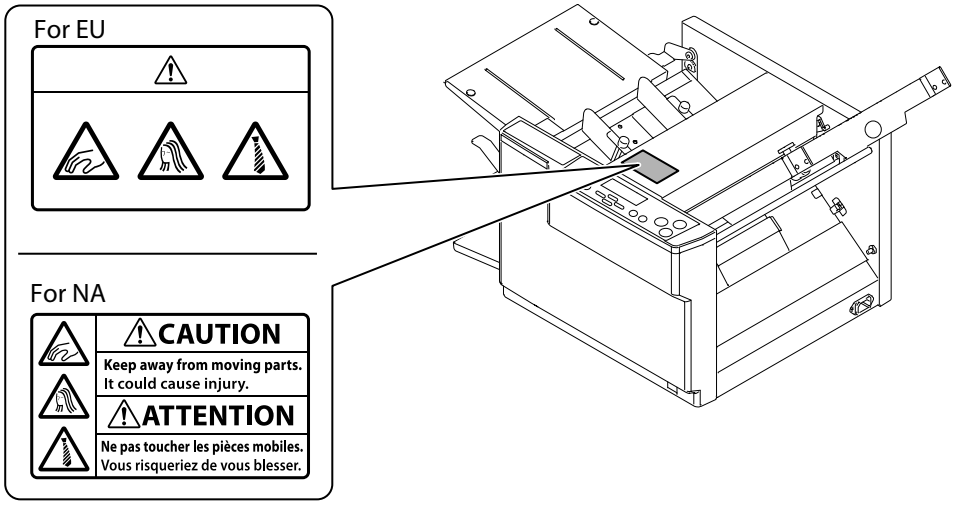
Operate this unit in the following environment.

- where the temperature range is between 5 and 35°C/41 and 95°F (–5 to 45°C/23 to 113°F in storage)
- where the humidity range is between 20 and 80% RH (10 to 90% RH in storage, however no condensation)
- which is not subject to direct sunlight
- where the outside light does not exceed 1,500 lx
- which is subject to little or no vibration
- which is free from air-borne salt
- where there are no harmful chemicals
- where the unit is not exposed to water

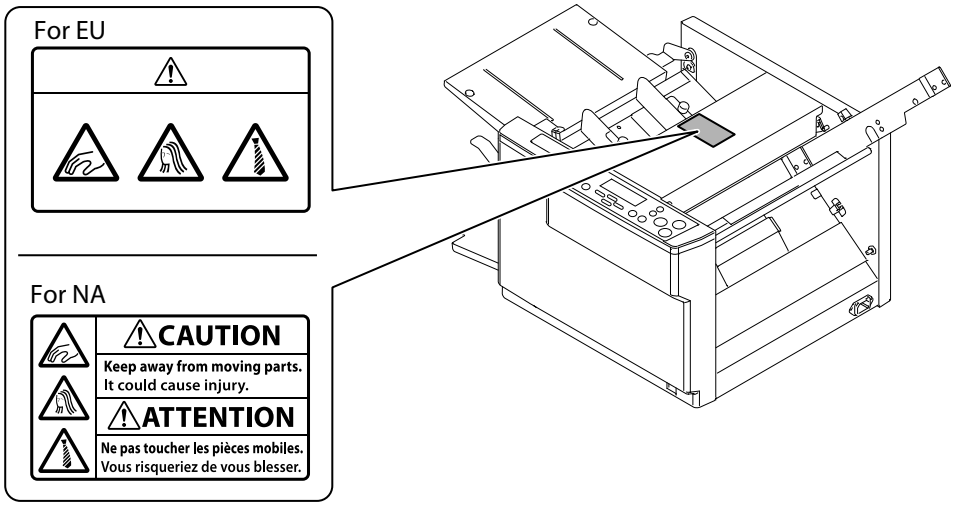
WARNING/CAUTION labels

"WARNING" and "CAUTION" labels are pasted on the machine to ensure user safety.
Do not remove or change them.
When the labels become dirty or are lost, be sure to contact your dealer for a new one.

DF-850



DF-870



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Chapter 4
Maintaining the Machine

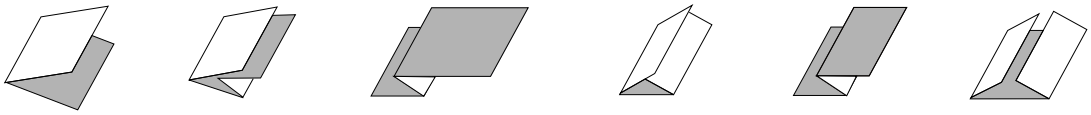
Chapter 5
Trouble Guide

Chapter 6
Appendix

Chapter 1 Before Operation

1. Features

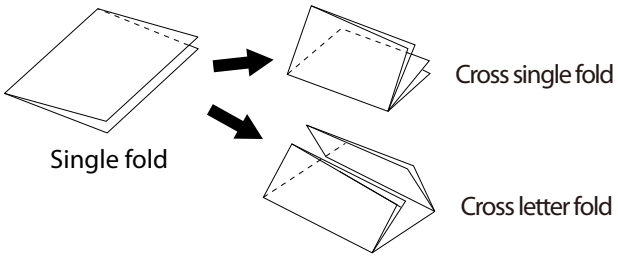
- This device can be used to fold paper into the following six shapes.



Single fold | Double fold | Irregular accordion fold-out | Letter fold | Accordion fold | Gate fold

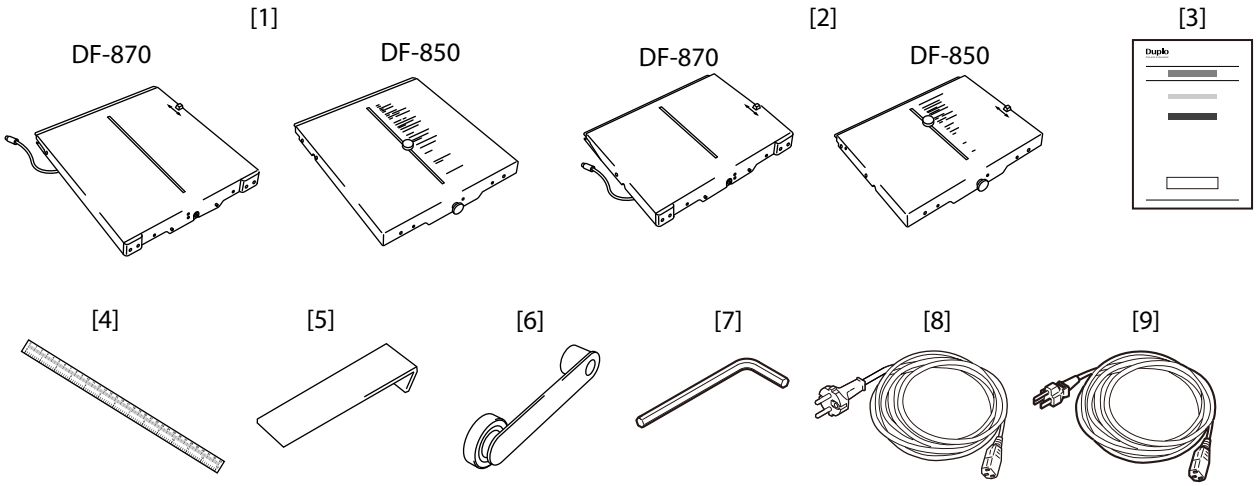
- By using the cross folding lever, it is possible to create cross single fold and cross letter fold.

Note that the finish of cross folding is not as accurate as that of the six folding modes mentioned above.



2. Setting Up the Machine

2-1. Accessories



No.	Name	QTY	Use
[1]	Folding plate 1	1	Attached to the right upper section on the operator's side.
[2]	Folding plate 2	1	Attached to the right lower section on the operator's side.
[3]	Instruction manual	1	This manual
[4]	Scale label	1	Used to measure non-standard size paper. Attach the scale.
[5]	Guide plate unit	1	Used when folding B6 size fine quality paper of 81.4 g/m^2 into four.
[6]	Cross folding lever	1	For holding down the folded paper when cross fold.
[7]	L-handle hexagonal wrench	1	Used when moving the auxiliary paper feed ring. Do not use the L-handle hexagonal wrench for a purpose other than handling the auxiliary paper feed ring as instructed in this manual.
[8]	Power cord	1	For EU
[9]	Power cord	1	For NA

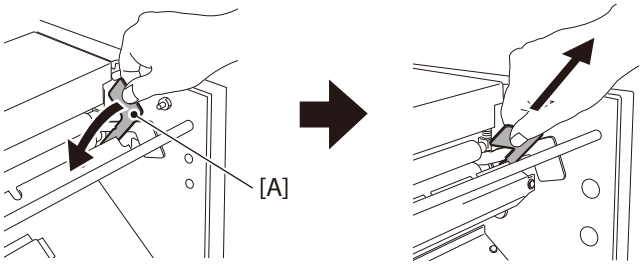
2-2. Removing press release lever

!
- **The press release levers are attached to the unit at shipment to prevent the rubber roll from becoming distorted. Be sure to remove them when setting up the machine.**
- **The machine will be damaged if it is used without removing the lever.**

The two types of press levers are attached to either side of the rubber roll.

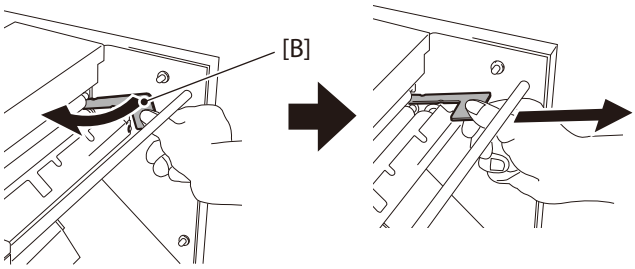
1 **To remove the press release lever [A] on the non-operator's side, push it inwards and pull it out.**

2 **To remove the press release lever [A] on the operator's side, push it inwards and pull it out.**



3 **To remove the press release lever [B] on the non-operator's side, push it inwards and pull it out.**

4 **To remove the press release lever [B] on the operator's side, push it inwards and pull it out.**



2-3. Attaching parts

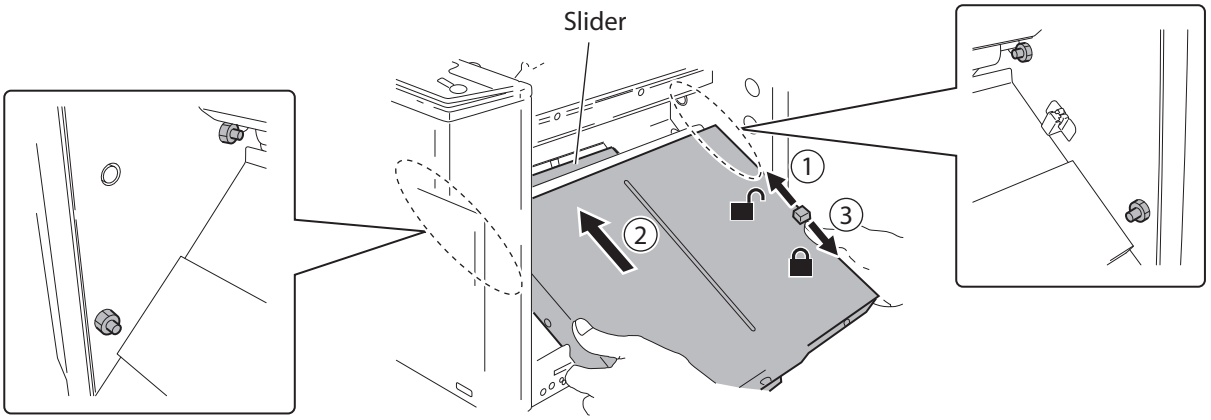
Attaching the folding plate

! **When attaching/removing the folding plate, always be sure to hold the folding plate in both hands.**

1 **Lower the folding plate 2 lock lever in the direction.**

2 **Attach the folding plate 2 to the machine.**
Insert the folding plate 2 so that it aligns with the slider and frame left and right pillars.

3 **Lower the lock lever in the direction to fix the folding plate 2.**



4 **Lower the folding plate 1 lock lever in the 🔓 direction.**

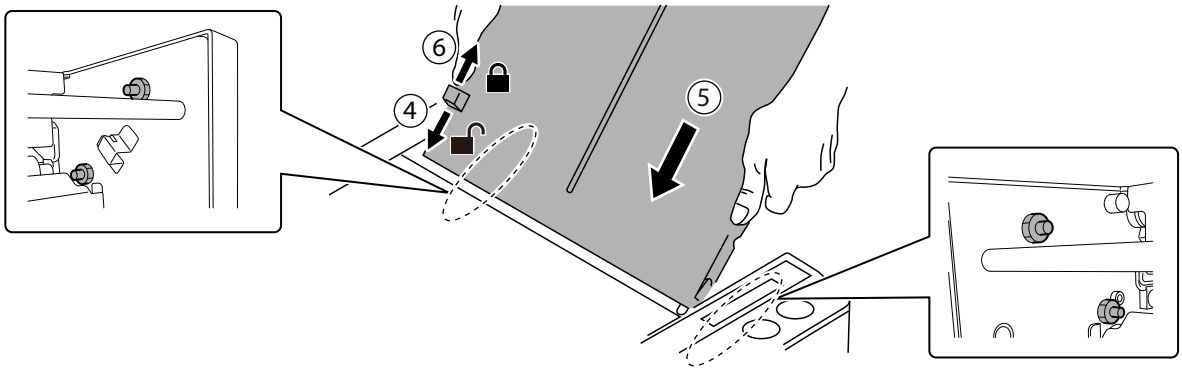
The DF-850 folding plate 1 does not have a lock lever. Go to step 5.

5 **Attach the folding plate 1 to the machine.**

Insert the folding plate 1 to align with the frame left and right pillars, and insert the U-shaped groove at the tip of the folding plate into the pillar at the back of the frame.

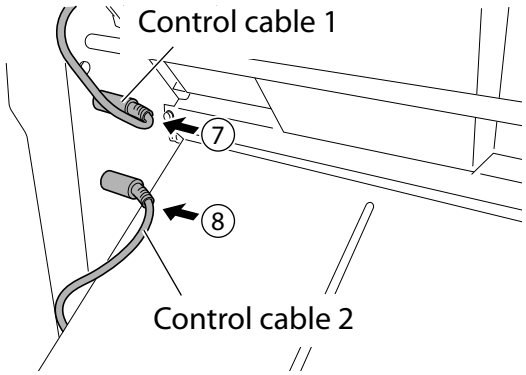
The DF-850 folding plate 1 does not have a control cable. Go to "Storage of guide plate unit/cross folding lever" (p.6).

6 **Lower the lock lever in the 🔒 direction, and fix the folding plate 1.**



7 **Connect the control cable 1 of the folding plate 1 to the connector 1.**

8 **Connect the control cable 2 of the folding plate 2 to the connector 2.**



!

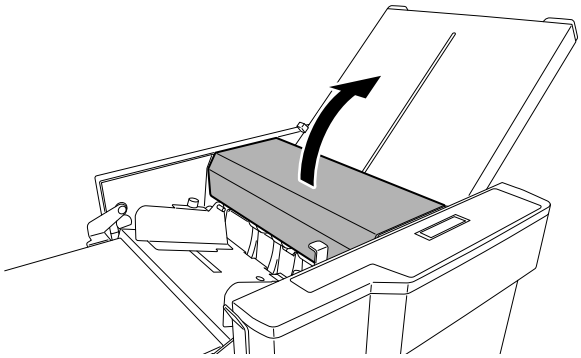
- **Be careful not to connect the control cable to a wrong connector.**
- **Be sure to turn off the power before connecting or disconnecting the control cable. Otherwise the unit will malfunction.**

Storage of guide plate unit/cross folding lever

1 **Open the top cover.**

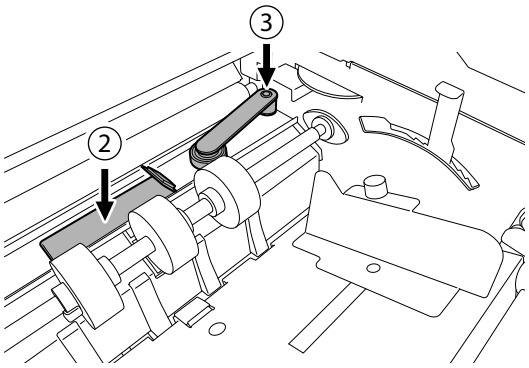
⚠WARNING

Open or close the top cover gently.
Hands or fingers may be caught in the cover section. Doing so may result in injury.



2 **Store the guide plate unit on the magnet in the figure at right.**

3 **Store the cross folding lever at the position in the figure at right.**
Insert the cross folding lever into the storage pillar.



! After use, always be sure to insert the cross folding lever boss hole into the pillar. Motion during an action is dangerous. In addition, there is a risk of entanglement in the roller, causing damage to the machine.

Carefully store the L-shaped hex wrench together with the Instruction Manual.

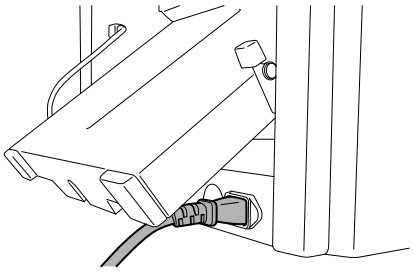
2-4. Connecting power cord

⚠WARNING

Do not touch the power plug with wet hands.
Otherwise electric hazards may occur.

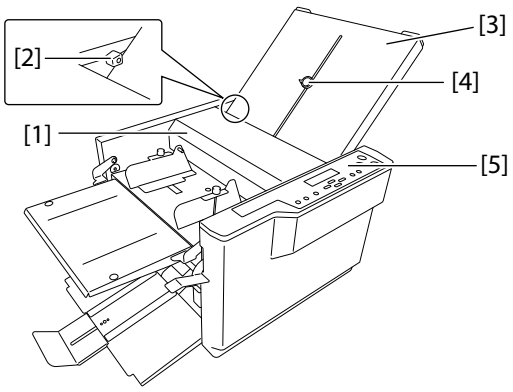
1 **Install the power cord to the machine.**

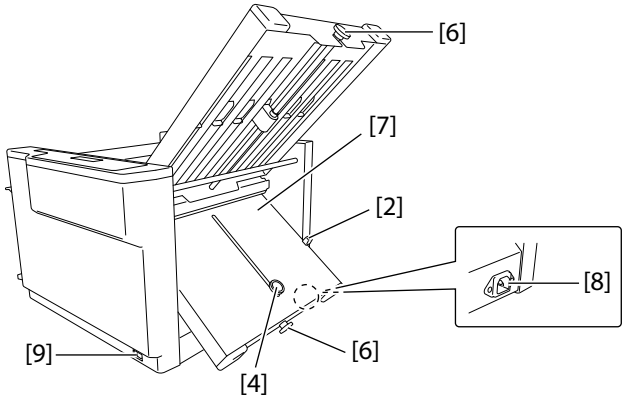
2 **Connect the power plug to the outlet.**



3. Names and functions of components

3-1. External parts

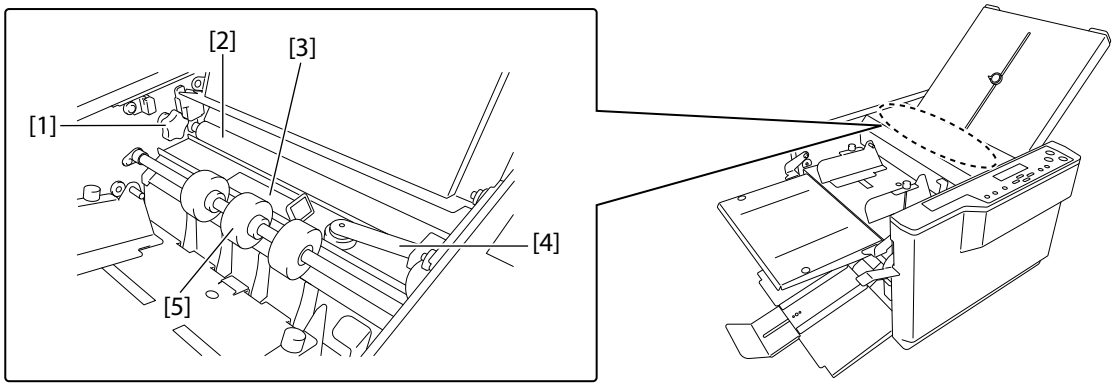




No.	Name	Function
[1]	Top cover	The cover is for maintaining safety. When the cover is open, the device will not operate.
[2]	Lock lever	Fixes each folding plate in place. Not available in the DF-850 folding plate 1.
[3]	Folding plate 1	Guide plate for deciding a paper folding position. First folding is made using this plate.
[4]	Rough adjustment knob (*)	Determines the folding position to match the paper size. Pull up the knob, and move it to align with the scale marks.
[5]	Control panel	Operates the machine. **(p.10)**
[6]	Fine adjustment knob (*)	Use this part when performing fine adjustment of the folding position aligned with the rough adjustment knob.
[7]	Folding plate 2	Paper that has been folded at the folding plate 1 is sent here, where the second folding is performed. This plate is not used when folding paper into two.
[8]	Power inlet	Connector for the power cord.
[9]	Power switch	☞ **Chapter2 "1-2. Turning off power" (p.17)**

(*) DF-850 only

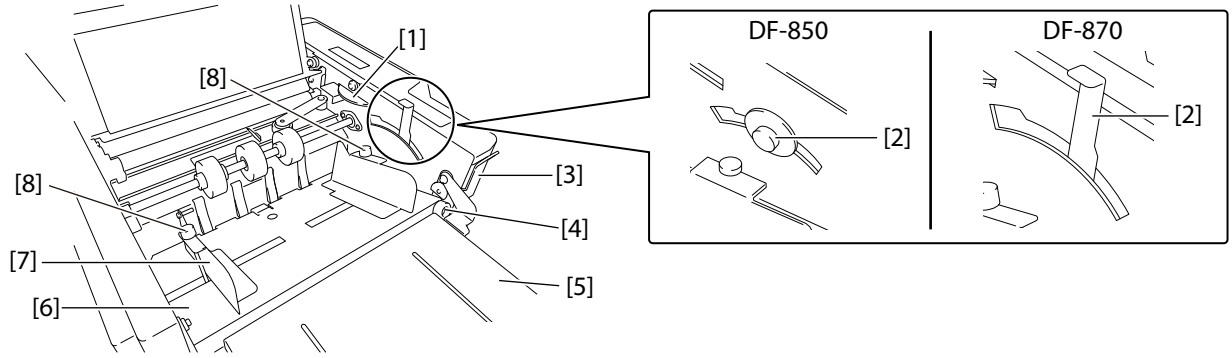
3-2. Inside top cover



No.	Name	Function
[1]	Jam correction knob (*)	Removes paper jammed around the rubber roll by turning the knob.
[2]	Rubber roll	Inserts paper into the folding plate 1.
[3]	Guide plate unit	☞ **"2-1. Accessories" (p.3)**
[4]	Cross folding lever	
[5]	Paper feed ring	Feeds paper into the machine.

(*) DF-870 only

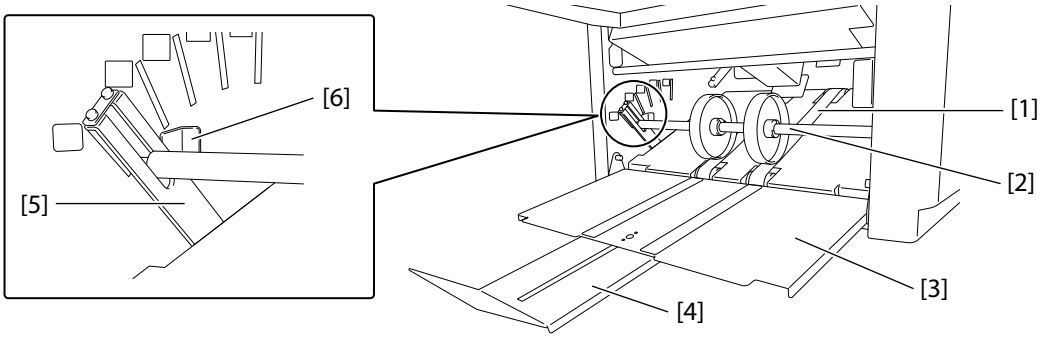
3-3. Paper feed section



No.	Name	Function
[1]	Separating pressure adjustment dial (*)	Adjusts the paper separating pressure.
[2]	Paper feed pressure adjustment lever	Adjusts paper feed pressure.
[3]	Paper set lever	When lowered, the paper feed tray is raised.
[4]	Skew correction knob	Corrects misalignment along sides of paper.
[5]	Auxiliary paper feed tray	Assists the paper stacked in the paper feed tray.
[6]	Paper feed tray	Used to stack paper to be folded.
[7]	Paper feed guide	Holds paper stacked on the paper feed tray.
[8]	Guide fixing screw	Fixes the paper feed guide in place.

(*) DF-870 only

3-4. Ejecting section

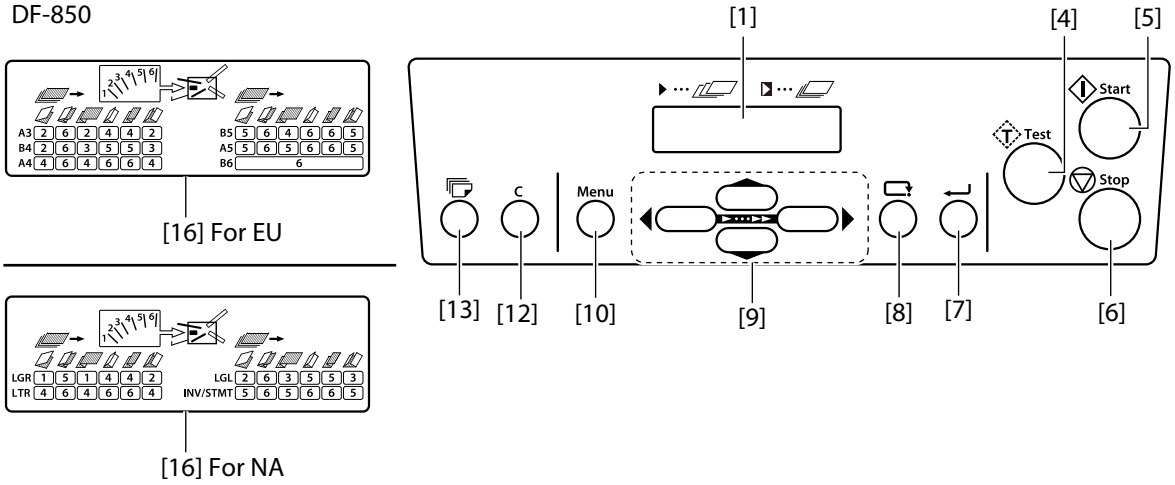


No.	Name	Function
[1]	Stacker belt	Belt for ejecting the folded paper.
[2]	Stacker roller	Holds down the ejected paper, and assists the paper transport.
[3]	Paper receiving tray	Stacks the folded paper.
[4]	Paper receiving stopper	Stops paper ejected out from the machine.
[5]	Stacker lever	Lever for supporting the stacker roller.
[6]	Lever	Adjusts the stacker roller height.

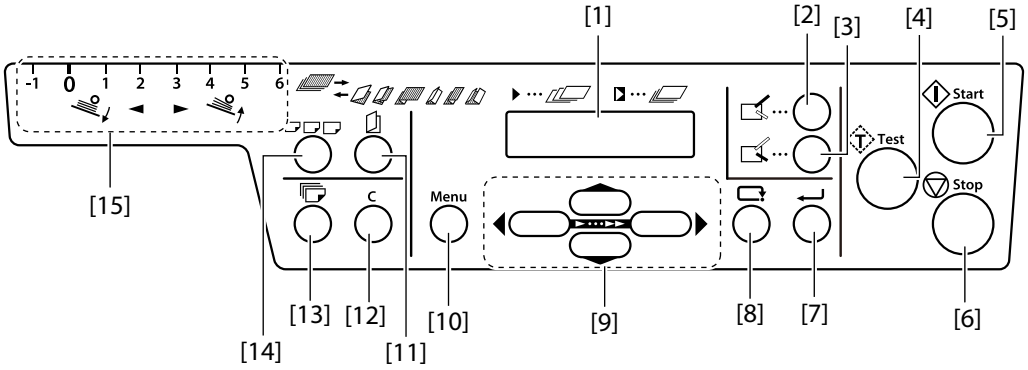
4. Control Panel

4-1. Names of control panel

DF-850



DF-870



No.	Name	Function
[1]	LCD display	Displays the menus or error messages.
[2]	(folding stopper 1 adjustment) key (*1)	Opens the stopper adjustment screen for the folding plate 1.
[3]	(folding stopper 2 adjustment) key (*1)	Opens the stopper adjustment screen for the folding plate 2.
[4]	(test) key	Starts test folding.
[5]	(start) key	When pressed, the machine starts folding operations.
[6]	(stop) key	When pressed, the machine stops.
[7]	(return) key	Press to enter the settings.
[8]	(cancel) key	Use to cancel setting data.
[9]	▲▼ key	Used when changing the setting value or selecting the item. Main screen: Change the processing speed only when [Feed INTVL] is set to [ON]. Menu selection screen: Select the menu item. Number setting screen: Each time the ▲ key is pressed, number is [+1], each time the ▼ key is pressed, number is [-1].
	◀▶ key	Used when changing the selection content or number. Main screen: Change the processing speed. Number setting screen: Change the number of digits to be input.

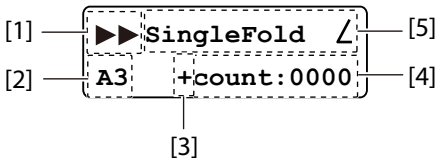
No.	Name	Function
[10]	Menu key	Opens the menu selection screen.
[11]	(folding mode) key (*1)	Standard folding can be selected. For the paper size of LP (non-standard size paper) and 181.9 mm/7.16 inches or less, the mode cannot be changed from single fold. If the paper size is CF (non-standard size folding paper) or the operation mode is SF (stopper fixed mode), the mode cannot be changed.
[12]	C (clear) key	On the main screen, clears counters. When inputting a numerical value, sets the value to the initial value..
[13]	(count) key	Opens the counter set screen.
[14]	(custom folding) key (*1)	Standard paper sizes can be selected.
[15]	Paper feed pressure label (*1)	Refer to this label when setting paper feed pressure according to the paper quality.
[16]	Stacker roller positioning table (*2)	Used as a measuring scale for adjusting the stacker roller position.

(*1) DF-870 only
(*2) DF-850 only

4-2. Screen menus

4-2-1. Top screen

The top screen is a screen displayed first when you turn on the power.



No.	Name	Default value	Function
[1]	Processing speed display	▶▶	The currently selected process speed is displayed. ▶ (1 speed) ▶ (1 speed+) ▶▶ (2 speed) ▶▶ (2 speed+) ▶▶▶ (3 speed) ▶▶▶ (3 speed+) See "4-2-2.Menu list" (p.12) [DEF Speed].
[2]	Paper size display (*)	[A3] (EU)	The current paper size is displayed. [A3]/[B4]/[A4]/[B5]/[A5]/[B6] [LP] (Non-standard size paper) [CF] (Non-standard size folding paper) [SF] (Stopper fixed mode)
		[LGR] (NA)	[LGR]/[LGL]/[LTR]/[ST/IN]/[LP]/[CF]/[SF]

No.	Name	Default value	Function
[3]	Counter display	0000	The counter mode is displayed. +: Add count mode -: Subtract count mode
[4]			Counters are displayed. [Count: ****]: In the add count mode, the number of processed sheets is displayed in additions. *: 0000 to 9999 [****/****]: In the subtract count mode, "the number of sheets that has been processed / the number of sheets that is set to be processed" is displayed as a subtraction counter. *: 0000/0000 to 9999/9999
[5]	Folding mode display (*)	[Single Fold]	The current folding mode is displayed. [SingleFold] [DoubleFold] [Fold-out] [LetterFold] [Accordion] [GateFold] When the paper size is [CF] or [SF], the folding stopper 1 position and folding stopper 2 position are displayed.

(*) DF-870 only

4-2-2. Menu list

The following menu items are provided with this machine.

Item	Setting range	Default value	Details
P Length (Paper Length)	128.0 to 432.0 182.0 to 432.0 (EU)	LP: 420.0 CF: - - - -	Set the LP (non-standard size paper) length. The range for setting by the folding mode has been changed as follows. 128 to 432 mm/5.04 to 17.00 inches: Single fold 182 to 432 mm/7.17 to 17.00 inches: Double fold, irregular accordion fold, letter fold, accordion fold, gate fold Standard size paper length cannot be changed.
	5.04 to 17.00 7.17 to 17.00 (NA)	LP: 431.8 CF: - - - -	
S-Roller (Stacker Roller)	1 to 6	2 (EU)	Adjust the stacker roller position.
		1 (NA)	
Oper Mode	[STD] [LF] [SF]	[STD]	When turning on the power, set the operation for the stoppers for folding plate 1 and folding plate 2. [STD] (standard): Start up the machine in the normal setting state, when the power is turned on. [LF] (last fold mode): Start up in the same conditions at all times. [SF] (stopper fixed mode): Always starts up with the same condition settings. Stopper fixed mode can be set in DF-870 only.
Interval (Interval Setting)	[ON] [OFF]	[OFF]	Set whether the interval (batch) function will be used.

Item	Setting range	Default value	Details
IntervalTime	[3] [5] [10] [15] [20] [30]	[5]	After processing the batch sheet number set in [Interv Sht], set the interruption time (seconds) until the start of the next paper feed.
Interv Sht (Interval No. of Sheets)	1 to 999 (Sheet)	1	Set a number of sheets for batch print for the folding operation.
Power Save (Power Save Setting)	[ON] [OFF]	[ON]	Set whether the backlight of LCD display turns off automatically. (Energy-saving mode)
P-Save Time (Power Save Time)	1 to 99 (Minutes)	5	Set the time when the backlight of LCD display turns off automatically.
Load Detect	[ON] [OFF]	[ON]	Set the paper loading detection.
Tone	[ON] [OFF]	[ON]	Set whether or not the buzzer (key operation sound on the operation panel) shall be enabled. However, the buzzer will go off in case of abnormality even when the setting is [OFF].
DEF Speed (Default Process Speed)	▶ ▶ ▶▶ ▶▶ ▶▶▶ ▶▶▶	▶▶	Processing speed. If [DEF INTVL] is set to [ON], [DEF Speed] can be read when the power is turned on. However, this is only when [Oper Mode] is set to [STD]. ▶, ▶▶, and ▶▶▶ can be used only with standard folding of standard size paper. Processing speed is lower as numbers become smaller, and higher as numbers become larger.
DEF INTVL (Default Interval)	[ON] [OFF]	[OFF]	If set to [ON], the [Interval] can be read when the power is switched on. However, this is only when [Oper Mode] is set to [STD].
Feed Time	[Mid] (Middle) [Long]	[Mid]	Set the timing for paper feed.
Feed INTVL (Feed Interval)	[ON] [OFF]	[OFF]	If set to [ON], the processing speed and [DEF Speed] can all be selected.

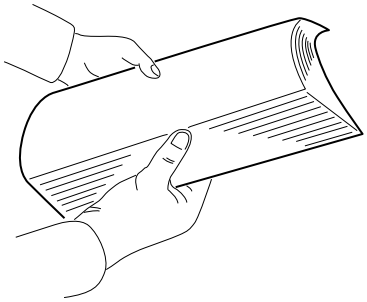
5. Handling Paper

5-1. Paper used

- Make sure that the printing ink on the paper has dried completely prior to use.

- **If used without the ink completely dried, the folding roller or paper may become dirty.**
- **Paper printed with special ink may cause the swelling and deformation of the rubber rolls, leading to folding misalignment.**

- If curled paper is used, depending on the environmental condition (temperature, humidity), paper quantity, paper type, and paper fiber, it may not flow smoothly into the folding plate or may not be folded properly. Flatten the paper prior to use.
- When folding B6 size paper or less, if you use fine quality paper of 64 g/m^2/17.1 lb or thicker, the paper may not be able to be ejected. (EU)
- Fan paper well prior to use.

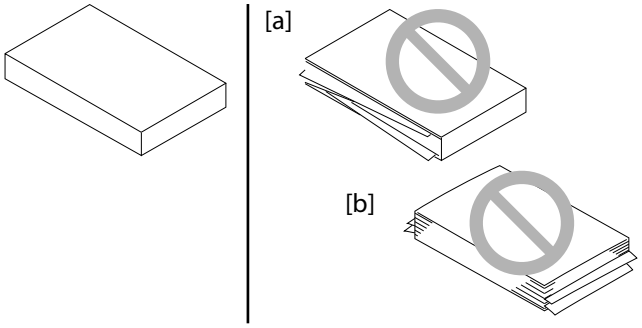


5-2. Precautions on stacking paper

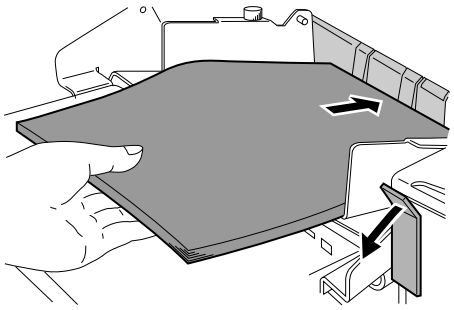
[a] Do not stack paper on the paper feed tray with the left and right sides of the paper unaligned or some sheets protruding out.

[b] Do not stack paper on the paper feed tray with the lead and tail edges unaligned or some sheets protruding out.

- **Processing with sheets unaligned on the right or left side may cause such trouble as folding misalignment and jamming.**
- **If the paper is protruding at the lead or tail edge, paper will not be fed stably, resulting in problems such as paper feed error and folding misalignment.**

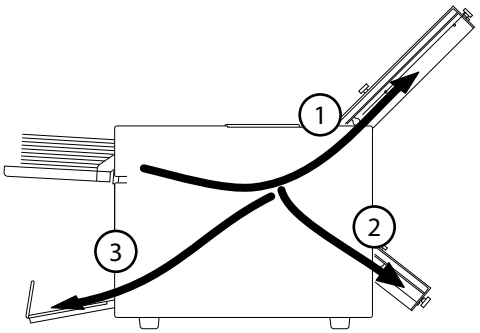


- When stacking just a few sheets of paper on the paper feed tray, lower the paper set lever while pressing the lead edge of the paper against the guide plate.

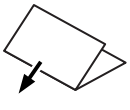
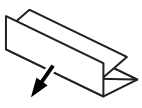
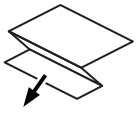
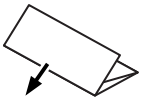
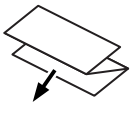
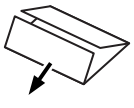


6. Paper flow and operation overview

Paper flow

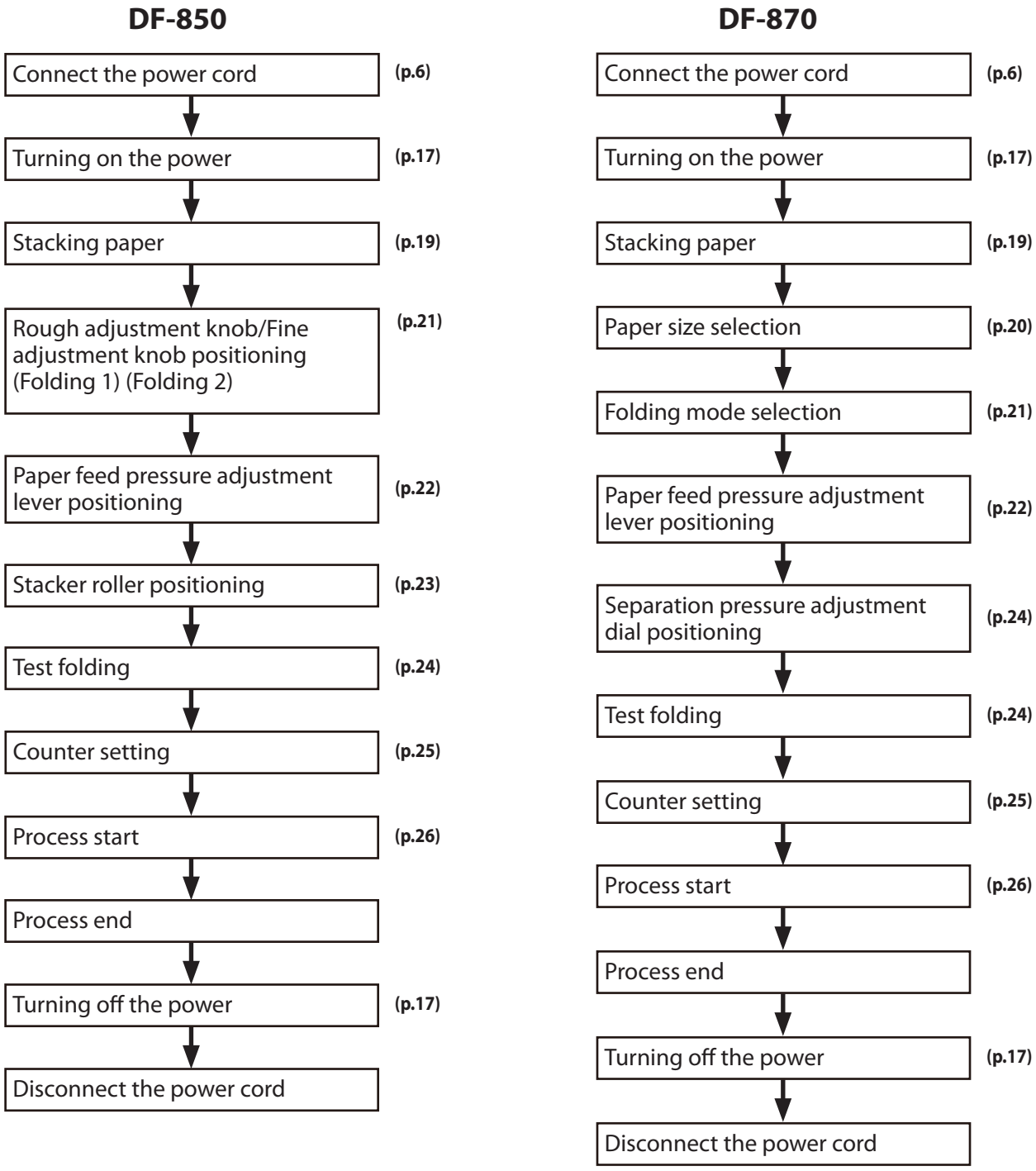


The "1" to "3" in this illustration are the sequence of paper being transported. Transported paper can be folded in each of the foldings shown in the table.

No.		Single fold	Double fold	Irregular accordion fold	Letter fold	Accordion fold	Gate fold
(1)	Folding 1						
(2)	Folding 2	Not used.					
(3)	Finish						

7. Workflow

The following flowchart illustrates the flow of basic operation. For details, refer to the text and relevant pages.



Chapter 2 Basic Operation

1. Turning On/Off Power

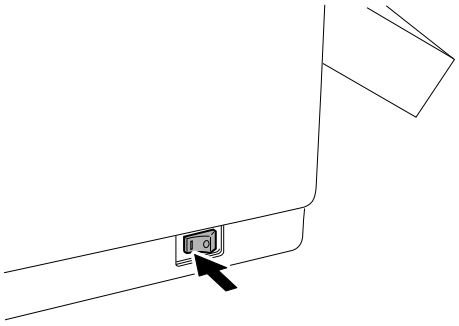
Make sure that the power plug is connected to the wall socket.

⚠ WARNING

Do not touch the power plug with wet hands.
Otherwise electric hazards may occur.

1-1. Turning on power

Set the power switch to the " I " side.
Turning on the power starts the initial operation. Do not operate the machine until the initial operation stops.



1-2. Turning off power

Set the power switch to the " ◯ " side.

2. Stacking the Paper

2-1. Standard paper

For EU

The standard papers that can be used for this machine are the following six types.

Paper Size	A3	A4	A5	B4	B5	B6
Wide × Long (mm)	297×420	210×297	148×210	257×364	182×257	128×182

These sizes except A4 and B5 are detected as standard paper only when stacked with short edge feed.

Stacking Direction	Paper Size					
	A3	A4	A5	B4	B5	B6
Short edge feed	√	√	√	√	√	√
Long edge feed		√	× (*)		√	× (*)

Can be used as standard paper : √
Cannot be used as standard paper : X
(*) For non-fixed paper size, only single folding is possible.

For NA

The standard papers that can be used for this machine are the following five types

Paper Size	LGR (double letter)	LGL (legal)	LTR (letter)	STMT (statement)	INV (invoice)
Wide × Long (inch)	17 x11	14 x 8.5	11 x 8.5	8.5 x 7	8.5 x 5.5

LGR and LGL are detected as standard paper only when stacked with short edge feed.

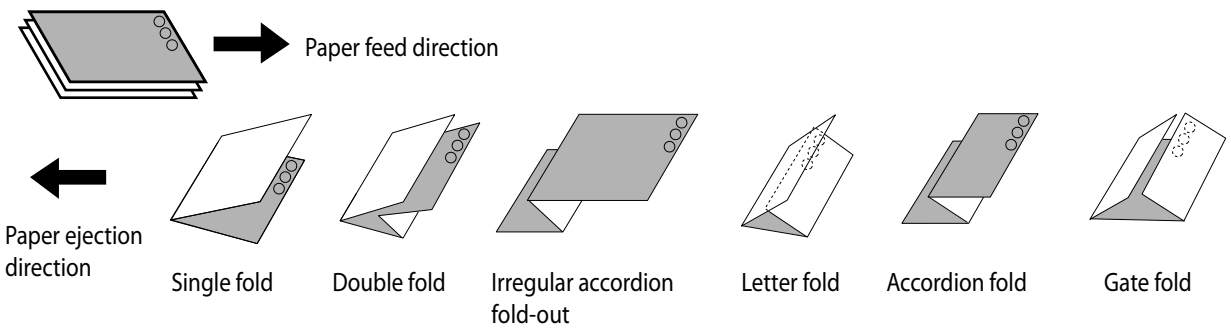
Stacking Direction	Paper Size				
	LGR	LGL	LTR	STMT	INV
Short edge feed	√	√	√	√	√
Long edge feed			√	×	×

Can be used as standard paper : √
Cannot be used as standard paper : X

2-2. Standard folding

There are six types of standard folding modes: single fold, double fold, irregular accordion fold (fold out), letter fold, accordion fold (z fold) and gate fold. Paper is folded as shown below when the paper is placed on the paper feed tray with its print side facing upward.

When paper is stacked with the gray surface on the obverse side and white surface on the reverse side on the paper feed tray, and processing is completed in the standard folding mode, the folded paper is as shown in the figure.



2-3. Stacking paper

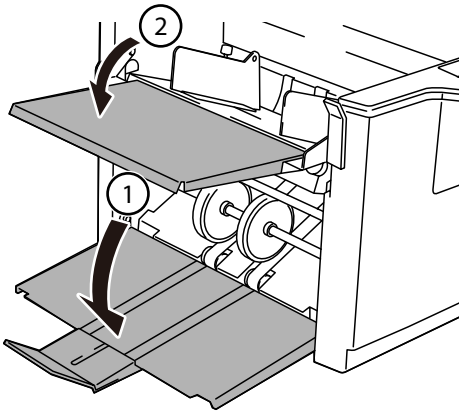
⚠CAUTION

Do not put fingers inside during operation.
Keep away long hair, ties, jewelry and loose clothing.
It could cause injury.

1 **Open the paper reception plate.**

2 **Open the support paper feed plate.**

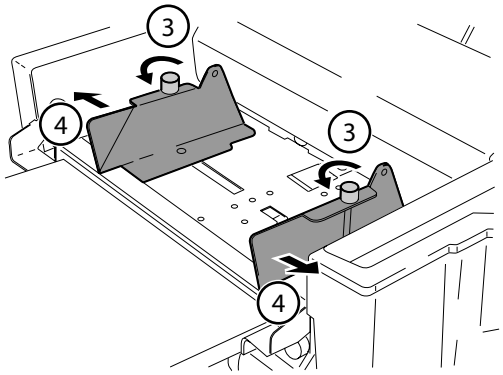
The paper reception plate and support paper feed plate are fold-up type for convenience during movement or storage. Always open it during use.



If you open the support paper feed plate before opening the paper reception plate, the paper reception stopper could get caught in the support paper feed plate, resulting in damage. Always open the paper reception plate first.

3 **Loosen the guide fixing screws.**

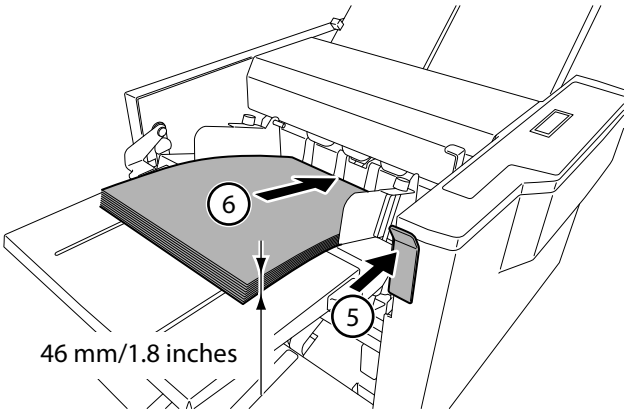
4 **Open the paper feed guides.**



5 **Lift the paper set lever.**

6 **Stack paper in the center of the paper feed tray.**

- Insert paper until the paper tip part lightly bumps against the guide plate.
- Carefully separate and arrange the paper, and then place in the paper feed tray.
- Paper maximum stacking height: 46 mm/1.8 inches



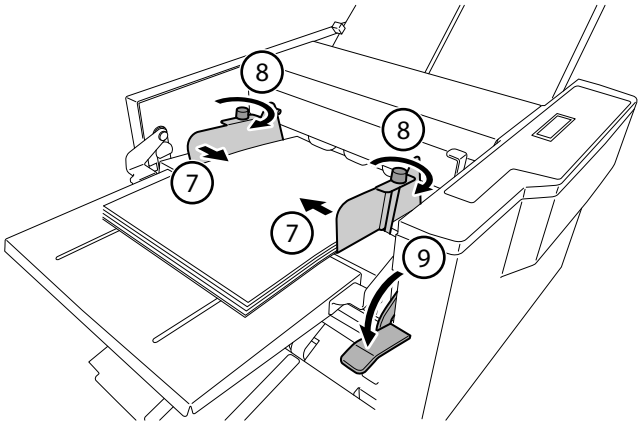
7 **Align the paper feed guides to the paper.**

Align the paper feed guides so that it lightly bumps against the sides of the paper.

8 **Tighten the guide fixing screws.**

9 **Lower the paper set lever.**

The paper feed tray rises.



- **Do not press the paper too hard with the paper feed guides. If pressed too hard, mis-feed and other paper feed errors could occur.**
- **Always be sure to tighten the guide fixing screws on both left and right. If they are not fixed in place, the paper feed guides may move during machine operation, causing folding misalignment to right or left directions.**
- **Always be sure to lower the paper set lever.**

DF-850: If ⏎ key is pressed while the paper set lever is up, an error message is displayed on the LCD display and machine operation stops.

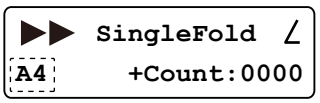
DF-870: If ⏎ key is pressed while the paper set lever is up, an error message is displayed on the LCD display and the machine will not operate.

3. Standard Folding of Standard Paper

3-1. Selecting paper size

In the DF-850, the paper size cannot be selected from the operations panel.
Go to "3-2.Selecting folding mode", "DF-850" (p.21).

Use the ▭▭▭ key to select a paper size.



Every time the ▭▭▭ key is pressed, the paper size is displayed according to the following order on the LCD display.

[A3] → [B4] → [A4] → [B5] → [A5] → [B6] → [LP] → [CF] →[A3] (EU)

[LGR] → [LGL] → [LTR] → [ST/IN] → [LP] → [CF] → [LGR] (NA)

When stacking A4 and B5 size paper with long edge feed, select [A5] and [B6] respectively. (EU)
When stacking letter size paper with long edge feed, select [ST/IN]. (NA)

3-2. Selecting folding mode

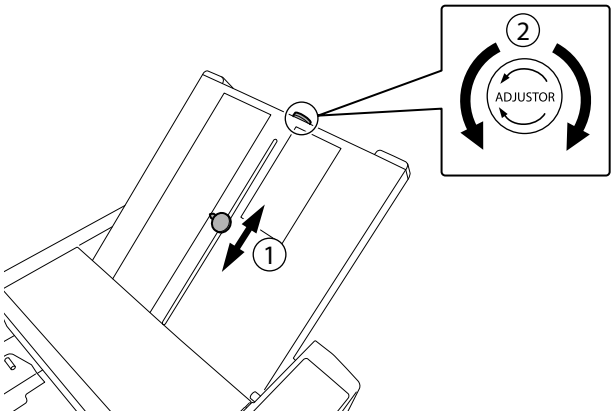
DF-850

1 **While pulling up the rough adjustment knob for the folding plate 1, align it to the folding form and paper size scale.**

If the rough adjustment knob becomes misaligned with the scale, perform step 2.

When stacking A4 and B5 size paper with long edge feed, move the rough adjustment knob to the mark of [A5] and [B6] respec-tively. (EU)

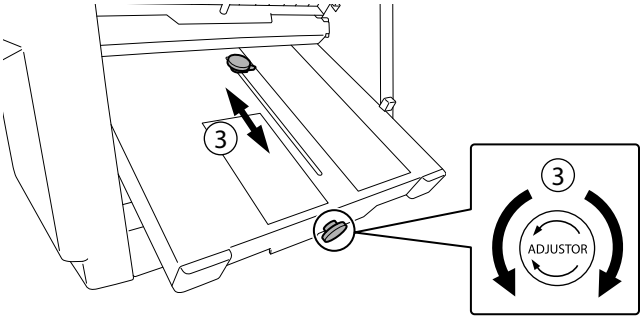
When stacking letter size paper with long edge feed, move the rough adjustment knob to the mark of [ST/IN] respec-tively. (NA)



2 **While rotating fine adjustment knob either right or left, align the rough adjustment knob to the folding form and paper size scale.**

The folding plate scale is the measure for use.

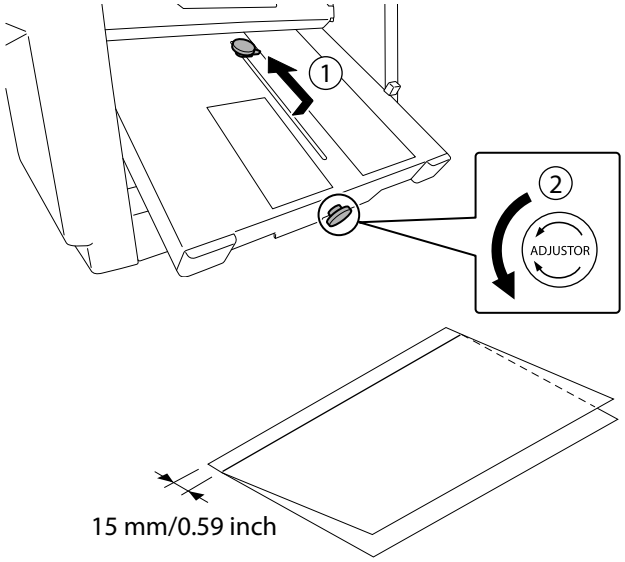
3 **Follow the same procedure as steps 1 to 2 to align the rough adjustment knob of the folding plate 2 to the scale.**



In case of single folding, the folding plate 2 is not used. Follow the procedure to move the rough adjustment knob to the highest point.

1 **While pulling on the rough adjustment knob, move to the highest point.**

2 **Rotate the fine adjustment knob to the left, and adjust so that the stopper is completely and lightly bumped.**

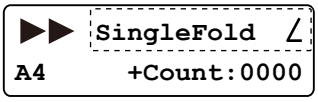


- **If the rough adjustment knob is not completely bumping against the front tip, when thin paper is used a single fold (long grain) may appear at a point about 15 mm/0.59 inch from the fold line.**
- **If the fine adjustment knob is rotated too forcefully, it could result in paper feed jams, mis-folding, or machine breakdown.**

DF-870

Press the key to select a folding mode.

Every time the key is pressed, the folding mode is displayed according to the following order on the LCD display.



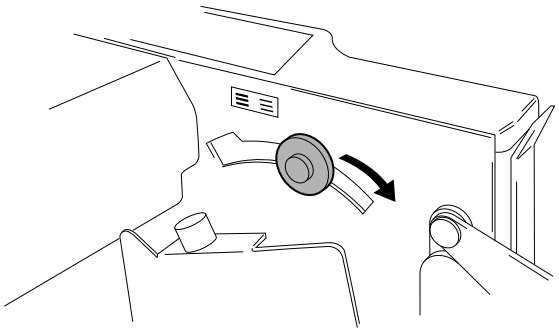
[SingleFold] → [DoubleFold] → [Fold-out] → [LetterFold] → [Accordion] → [GateFold] → [SingleFold]

3-3. Aligning paper feed pressure adjustment lever position

DF-850

Align the paper feed pressure adjustment lever to (thin paper).

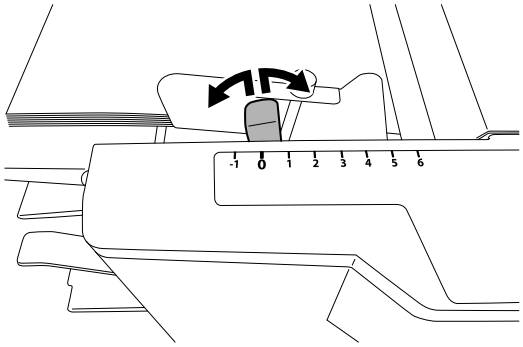
In case of miss-feed paper, change the paper feed pressure adjustment lever from (thin paper)] to (thick paper).



DF-870

Align the paper feed pressure adjustment lever to [0].

- While pulling in the upward direction, move the lever left and right.
- If the paper mis-feeds, change the paper feed pressure adjustment lever position to [1].
- If the paper overlaps, feeding several sheets at once, change the paper feed pressure adjustment lever position to [-1].



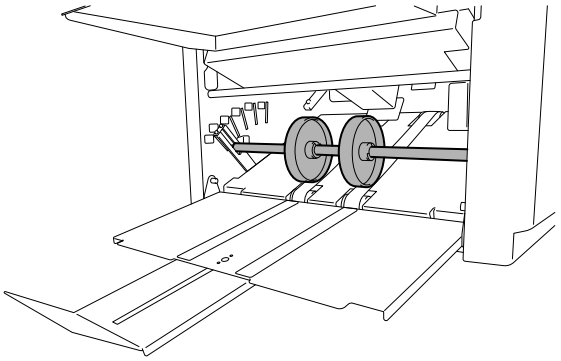
The DF-870 stacker roller automatically moves to align with paper size or folding form. Go to "3-5.Aligning separation pressure adjustment lever position" (p.24).

3-4. Aligning stacker roller position

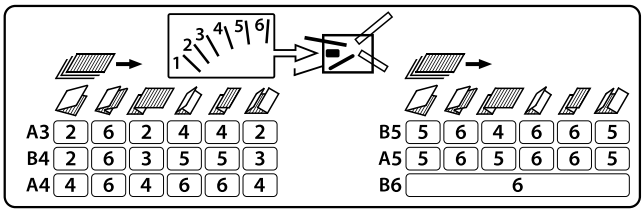
DF-850

Move the stacker roller in line with the table.

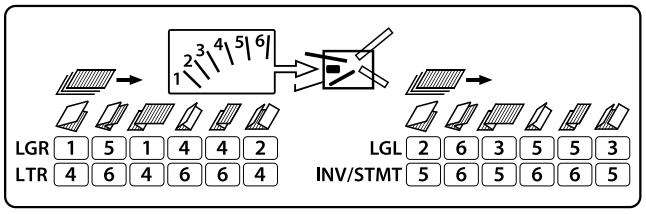
The position of the stacker roller depends on the paper size to be used and its folding form. Refer to the table for the position check.



For EU



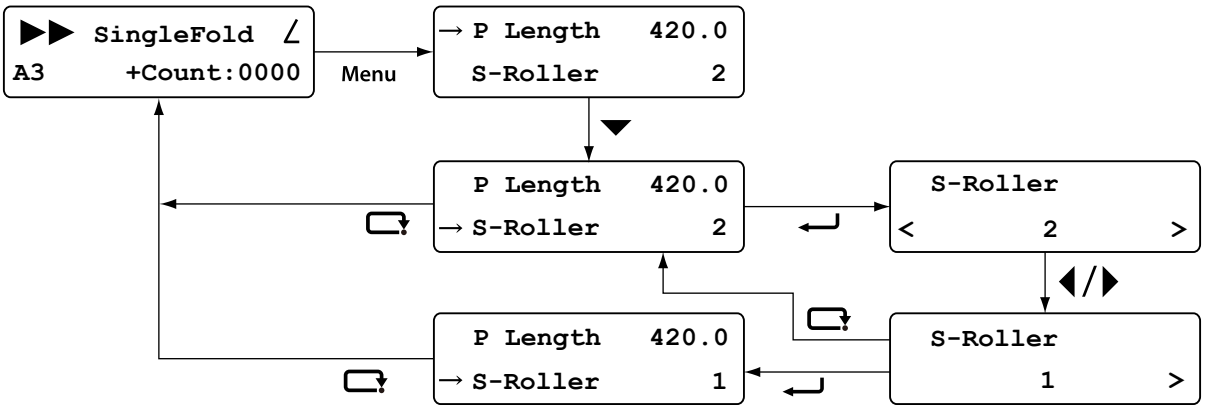
For NA



- This table is the measure for use.
- When stacking A4 and B5 with long edge feed, consider the paper size to be A5 and A6, respectively. For example, when single folding A4 with long edge feed, set the position of the stacker roller to [5]. (EU)
- When stacking letter size paper with long edge feed, consider the paper size to be [ST/IN], respectively. For example, when single folding letter size paper with long edge feed, set the position of the stacker roller to [5]. (NA)

DF-870

If paper is not smoothly ejected during test folding, or the ejected paper is poorly arrayed, change the stacker roller position.



If using gate folding of A3 or other large paper in high temperature and high humidity, the paper may become poorly arrayed. In this case, change the stacker roller position from [1] to [2].

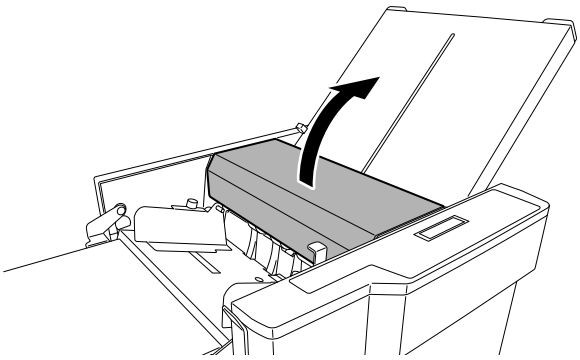
3-5. Aligning separation pressure adjustment lever position

DF-850 does not have a separation pressure adjustment lever. Go to "3-6.Performing test folding" (p.24).

1 Open the top cover.

⚠WARNING

Open or close the top cover gently.
Hands or fingers may be caught in the cover section. Doing so may result in injury.

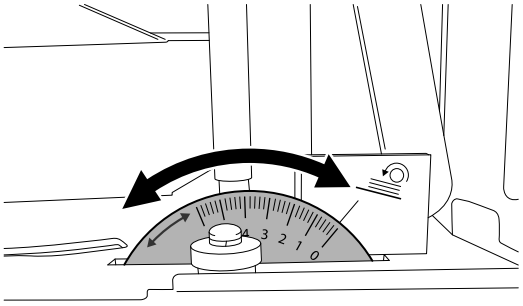


2 Set the separating pressure adjustment dial to [0.]

If several sheets of paper are fed at the same time (double-feed), increase the paper separating pressure to [1] or [2.]

When adjusting the separating pressure, increase the pressure gradually in steps of 0.5.

Paper separating pressure increases as the scale value increases.



3 Close the top cover.

3-6. Performing test folding

1 Press the T key for test folding.

- Two sheets of test-folded paper are ejected.
- For DF-870, pressing the T key moves the fold stopper in the folding plate to align with the set paper size and folding mode.
- If paper remains inside the machine, the remaining paper is ejected before the test folding, but is not counted in the process sheet number.
- If there is no paper in the paper feed tray, [Paper Empty] is displayed on the LCD display.

2 Confirm the test folding finish.

When a folding misalignment is confirmed, check that it is the final sheet of test-folded paper.

In case of misalignment, see Chapter 3 "6. Adjusting Misalignment" (p.46).

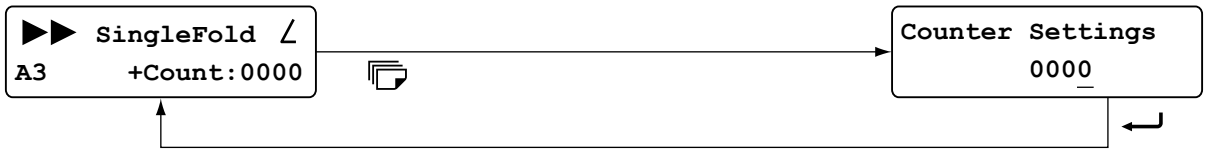
If already processed paper is not smoothly ejected to the paper reception plate, or a paper feed jam error has occurred, change the stacker roller position.

☞ **"3-4. Aligning stacker roller position" (p.23)**

3-7. Setting counter

If the operation mode is [STD] or [SF] (stopper fixed mode), the counter mode at the time you turn on the power is the add count mode.

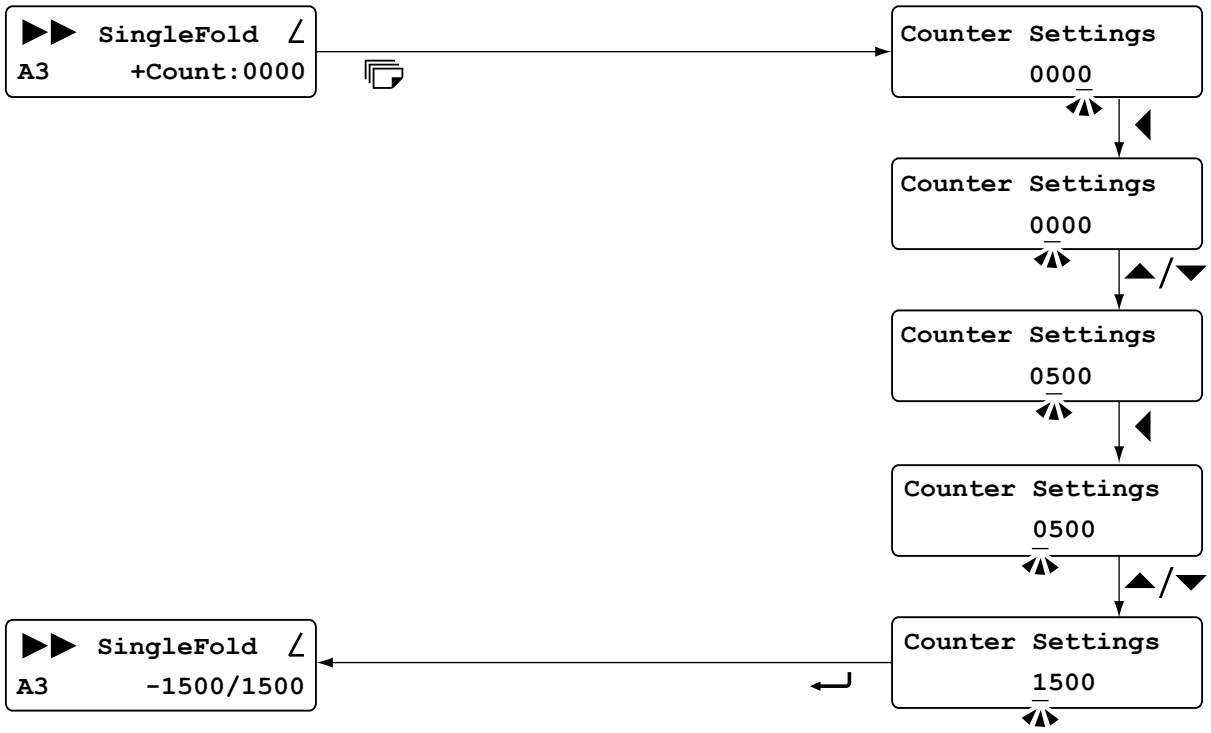
Add count mode



Check that the counter value is [0000], and then press the ↵ key.
If the value is not [0000], press the C key.

Subtract count mode

Example: Set the process sheet number to 1500 sheets



3-8. Performing folding operation

Press the ◇ key to start the folding operation.

- If in subtract count mode, after the set number of sheets has been processed, the machine stops. When continuing the folding operation in subtract count mode, press the ◇ key. Restart the process.
- If in add count mode, pressing and holding down the C key returns the count display to [0]. Pressing the ◇ key without pressing the C key restarts the process, and the processed sheet number is incremented.
- Press the ▽ key to interrupt or stop the operations.
- Press the ◇ key again to resume the operations.
- When there is no paper on the paper feed tray, the machine will stop automatically.
- If paper remains inside the machine, the remaining paper is ejected before the process restart, but is not counted in the process sheet number.
- If there is no paper in the paper feed tray, [Paper Empty] is displayed on the LCD display.

About the processing speed

- When the paper being processed is thin or small, or is being used in a quiet environment, set to [▶].
- When the processed paper is thick, set to [▶▶▶]. However, folding precision may deteriorate depending on the paper used.

Chapter 3 Advanced Operation

1. Using Specific Standard Size Paper

⚠CAUTION

Do not put fingers inside during operation.
Keep away long hair, ties, jewelry and loose clothing.
It could cause injury.

1-1. Using bearing support lever to hold down bearing

- When using thick paper, move the bearing support lever to hold down the bearing.
- Because the bearing support lever plays a role in preventing the rubber roller from floating up, if the bearing support lever slips away from the bearing during processing, the thick paper folding operation may fail.

1 **Open the top cover.**

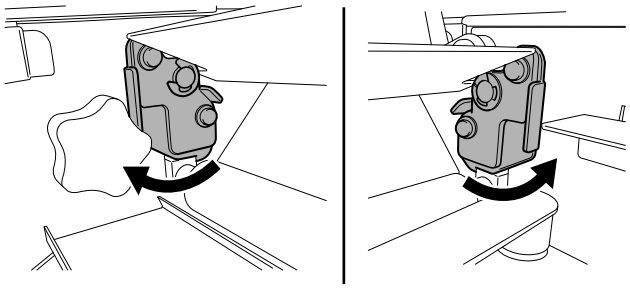
⚠WARNING

Open or close the top cover gently.
Hands or fingers may be caught in the cover section. Doing so may result in injury.

2 **Rotate the bearing support lever in the direction of the arrow.**

The bearing is held down.

The bearing support lever is found in two locations, the operations side and reverse operations side.



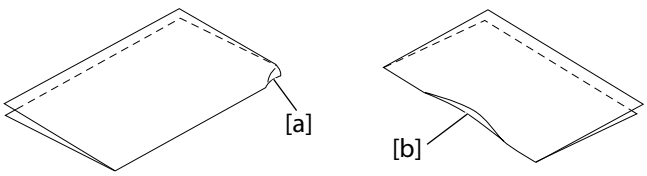
3 **Close the top cover.**

After thick paper processing is ended, always be sure to remove the bearing support lever from the bearing.

1-2. Single folding of thick paper

When performing single folding of thick fine quality paper 104.7 g/m^2/27.9 lb, etc., either the paper fold line corner fold [a] or central area fold [b], etc., may occur, depending on the usage environment (temperature, humidity), paper size, and paper grain direction, etc.

If a problem has occurred, perform the following processes.



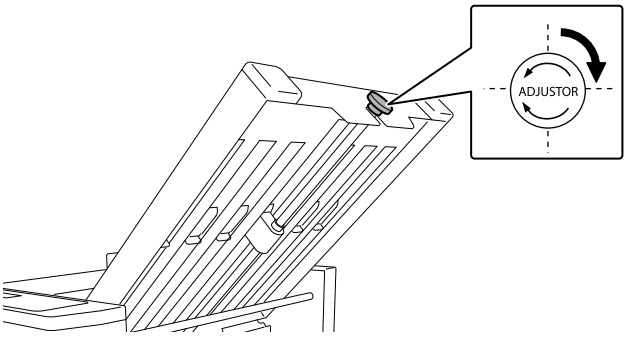
1 Stack paper in the paper feed tray.

☞ Chapter 2 "2-3. Stacking paper" (p.19)

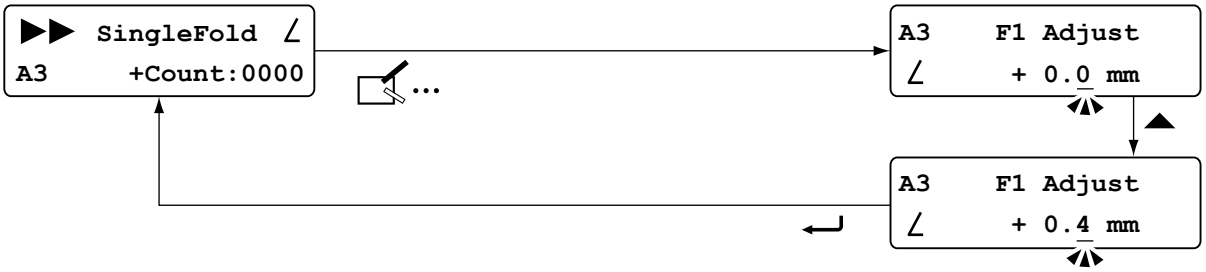
2 Adjust the fold stopper position in the folding plate 1.

- For DF-850, rotate the fine adjustment knob in the folding plate 1 by about one-fourth turn to the right.

  Move the fold stopper position in the folding plate 1 by 0.4 mm/0.015 inch.



- For DF-870, adjust [F1 Adjust] on the operations panel to [0.4].



3 Press the T key for test folding.

☞ Chapter 2 "3-6. Performing test folding" (p.24)

4 Set the counter.

☞ Chapter 2 "3-7. Setting counter" (p.25)

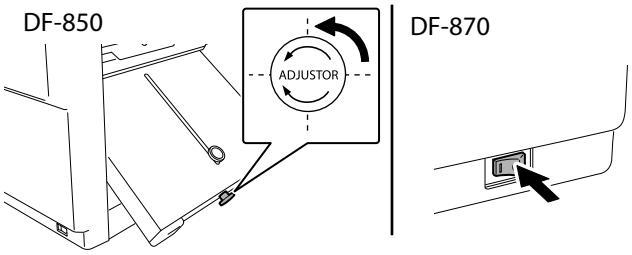
5 Start the folding operation.

☞ Chapter 2 "3-8. Performing folding operation" (p.26)

The recommended value for processing speed is [▶▶▶].

6 After the operation is ended, perform the following operations.

- For DF-850, rotate the fine adjustment knob to the left, and adjust so that the stopper is completely and lightly bumped.
- For DF-870, turn off the power.



! After the operation is ended, rotate the fine adjustment knob to the left, and set so that the stopper is completely bumped. If performing single folding of thin paper while it is rotated to the right, it cannot be cleanly folded. (DF-850)

After the operation is ended, turn the power back on, and return the folding stopper adjustment value to [0]. If performing single folding of thin paper as is, it cannot be cleanly folded. (DF-870)

1-3. Double folding of thick paper

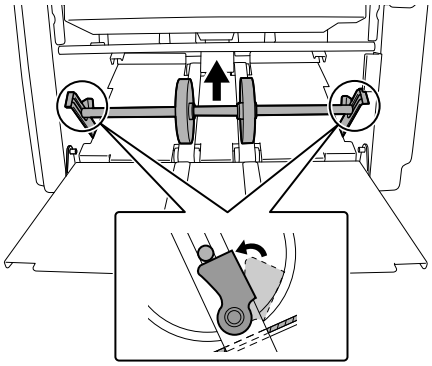
When using high-quality paper or other thick paper (fine quality paper 104.7 g/m^2/27.9 lb) to perform double folding, the paper folded part may open up when ejected to the stacker area, so that it cannot pass through the stacker roller, and resulting in a paper jam. In this case, perform the following processes.

When performing double folding of thick paper (fine quality paper 127.9 g/m^2/33.9 lb), paper ejection problem may occur. Do not use thick paper.

1 **Perform the operations in Chapter 2 "2-3. Stacking paper" (p.19) to "3-5. Aligning separation pressure adjustment lever position" (p.24).**

2 **Lift up the stacker roller by hand, and lift the levers (two locations right and left) attached to the stacker lever, in the direction of the arrow.**

The stacker roller is left floating above the belt surface.



3 **Set the stacker roller position.**

The setting position is [5].

☞ **Chapter 2 "3-4. Aligning stacker roller position" (p.23)**

The DF-870 stacker roller automatically moves to align with paper size or folding form.

4 **Press the ⓣ key for test folding.**

When the paper mis-feeds or two sheet feed occurs, see Chapter 5 "4. Handling of Mis-Feed" (p.65) or "5. Handling of Chains" (p.66).

5 **Check that the paper is smoothly ejected or not.**

If already processed paper is not smoothly ejected to the paper reception plate, or a paper feed jam error has occurred in the ejection area, change the stacker roller position.

If ejection was not smooth, perform step 6.

If ejection proceeded smoothly, go to step 7.

6 **Change the stacker roller position to [4] or [3].**

☞ **Chapter 2 "3-4. Aligning stacker roller position" (p.23)**

7 **Confirm the test folding finish.**

When a folding misalignment is confirmed, check that it is the final sheet of test-folded paper.

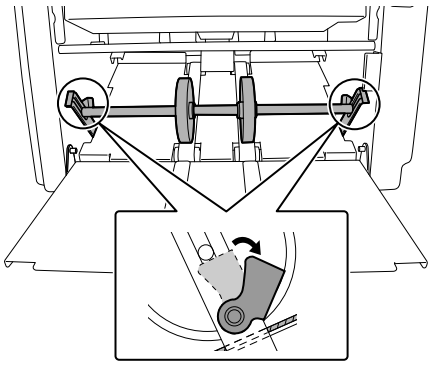
In case of misalignment, see Chapter 3 "6. Adjusting Misalignment" (p.46).

8 **Perform the operations in Chapter 2 "3-7. Setting counter" (p.25) to "3-8. Performing folding operation" (p.26).**

The recommended value for processing speed is [▶▶▶].

9 **After the operation is ended, return the stacker roller position to [1].**

10 **Lower the levers (two locations right and left) attached to the stacker lever, in the direction of the arrow.**



Leaving the stacker roller in the floating condition when used for normal paper could become a source of trouble.

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If the paper size or folding mode has been reset, or the power switch has been turned off, the stacker roller is returned to the automatic setting position.

1-4. Double folding of B6 size paper

When B6 size paper at 64.0 g/m^2/17.1 lb or more, and 81.4 g/m^2/21.6 lb or less, is double-folded, paper jams may occur. In such cases, use the attached guide plate unit.

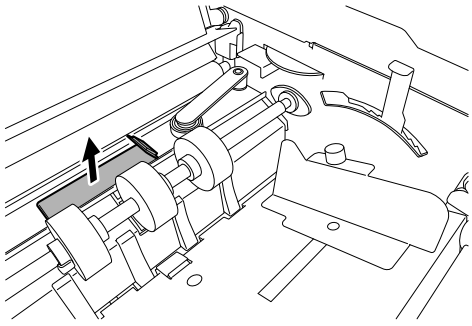
1 **Open the top cover.**

⚠WARNING

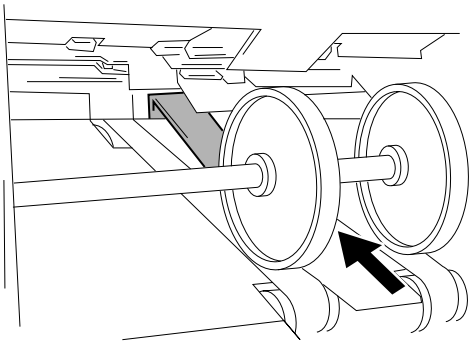
Open or close the top cover gently.

Hands or fingers may be caught in the cover section. Doing so may result in injury.

2 **Remove the guide plate unit.**



3 **Attach the guide plate unit in the position shown in the figure at right.**



4 **Perform the operations in Chapter 2 "2-3. Stacking paper" (p.19) to "3-5. Aligning separation pressure adjustment lever position" (p.24).**

5 **Set the stacker roller position.**

The setting position is [4].

☞ **Chapter 2 "3-4. Aligning stacker roller position" (p.23)**

The DF-870 stacker roller automatically moves to align with paper size or folding form.

6 **Press the ⓣ key for test folding.**

When the paper mis-feeds or two sheet feed occurs, see Chapter 2 "3. Standard Folding of Standard Paper" (p.20).

7 **Check that the paper is smoothly ejected or not.**

If ejection was not smooth, perform step 9.

If ejection proceeded smoothly, go to step 11.

8 **Change the stacker roller position to [5].**

☞ **Chapter 2 "3-4. Aligning stacker roller position" (p.23)**

9 **Confirm the test folding finish.**

When a folding misalignment is confirmed, check that it is the final sheet of test-folded paper.

In case of misalignment, refer to Chapter 3 "6. Adjusting Misalignment" (p.46).

10 **Perform the operations in Chapter 2 "3-7. Setting counter" (p.25) to "3-8. Performing folding operation" (p.26).**

11 **After the operation is ended, store the guide plate unit in its original location.**

2. Custom Folding of Standard Size Paper

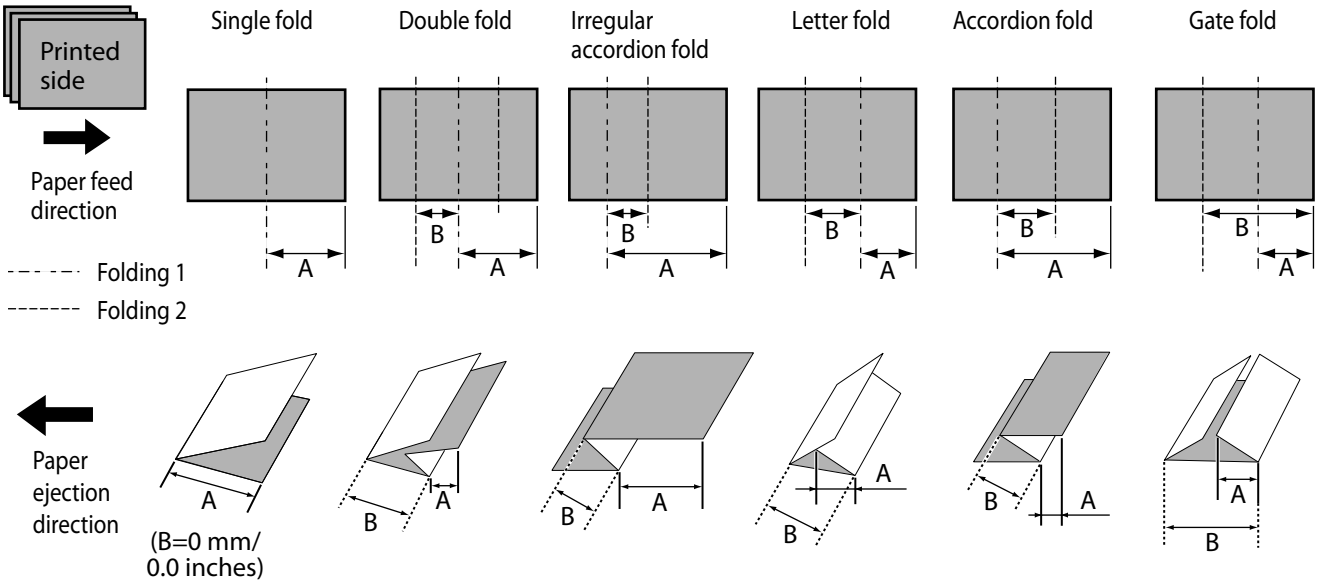
Custom folding refers to specifying the fold stopper position (folding position) for the folding plate 1 and folding plate 2, and folding paper at the desired location.

The dimensions where custom folding can be performed are as follows.

Dimension A: 45 to 325 mm/1.77 to 12.79 inches (Folding plate 1 folding dimension range)

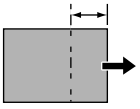
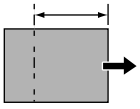
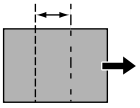
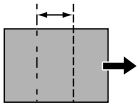
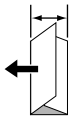
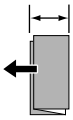
Dimension B: 45 to 217 mm/1.77 to 8.54 inches (Folding plate 2 folding dimension range)

Dimension C: 216 mm/8.50 inches or less (Finished dimensions)



The operations procedure is described with the setting value of the following table [1] as an example.

For [2], see the reference example.

No.	[1]	[2]
Utilization example	Flyers for distribution	
Paper size	A4 (210 x 297 mm/8.27 x 11.69 inches)	
Folding form	Letter fold	Accordion fold
Paper feed tray stacking direction	On print surface	On print surface
Folding 1 (Dimension A)	92 mm/3.62 inches 	200 mm/7.87 inches 
Folding 2 (Dimension B)	103 mm/4.06 inches 	100 mm/3.94 inches 
Finished size (Dimension C)	103 mm/4.06 inches 	100 mm/3.94 inches 

2-1. Measuring folding position dimension

1 Stack paper in the paper feed tray.

☞ **Chapter 2 "2-3. Stacking paper" (p.19)**

2 Manually prepare a folding sample with the paper being used.

3 **Measure the folding position dimensions of the folding sample.**

2-2. Setting paper size and folding mode

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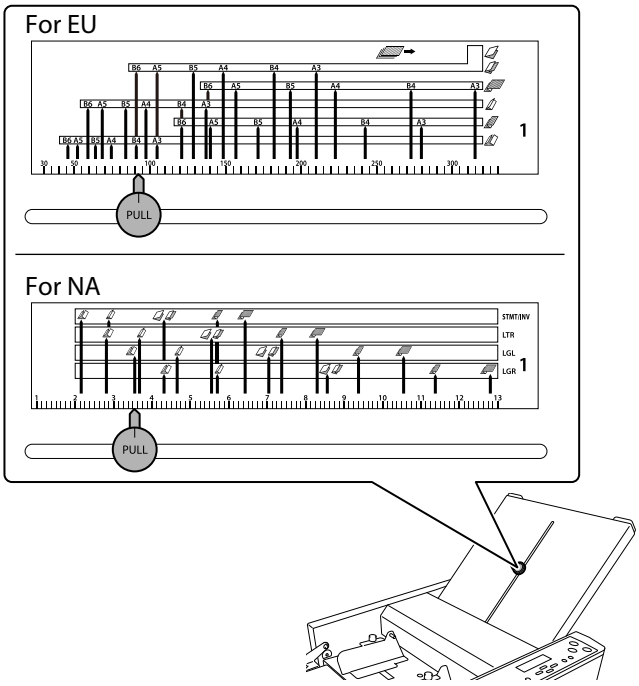
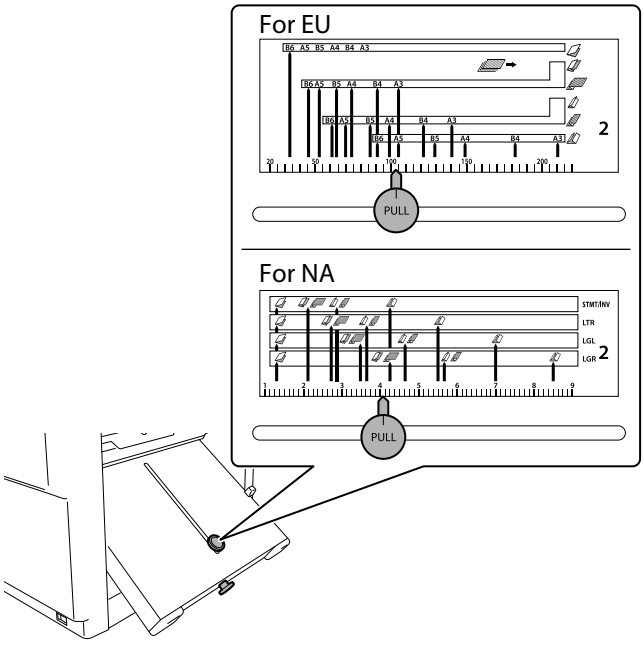
1 **While pulling up the rough adjustment knob of the folding plate 1, align it to the scale "92"/”3.62” (Dimension A).**



2 **Align the rough adjustment knob of the folding plate 2 to the scale "103"/”4.06” (Dimension B).**

If the rough adjustment knob becomes misaligned with the scale, perform step 3.

3 **While rotating fine adjustment knob either right or left, align the rough adjustment knob to the scale.**



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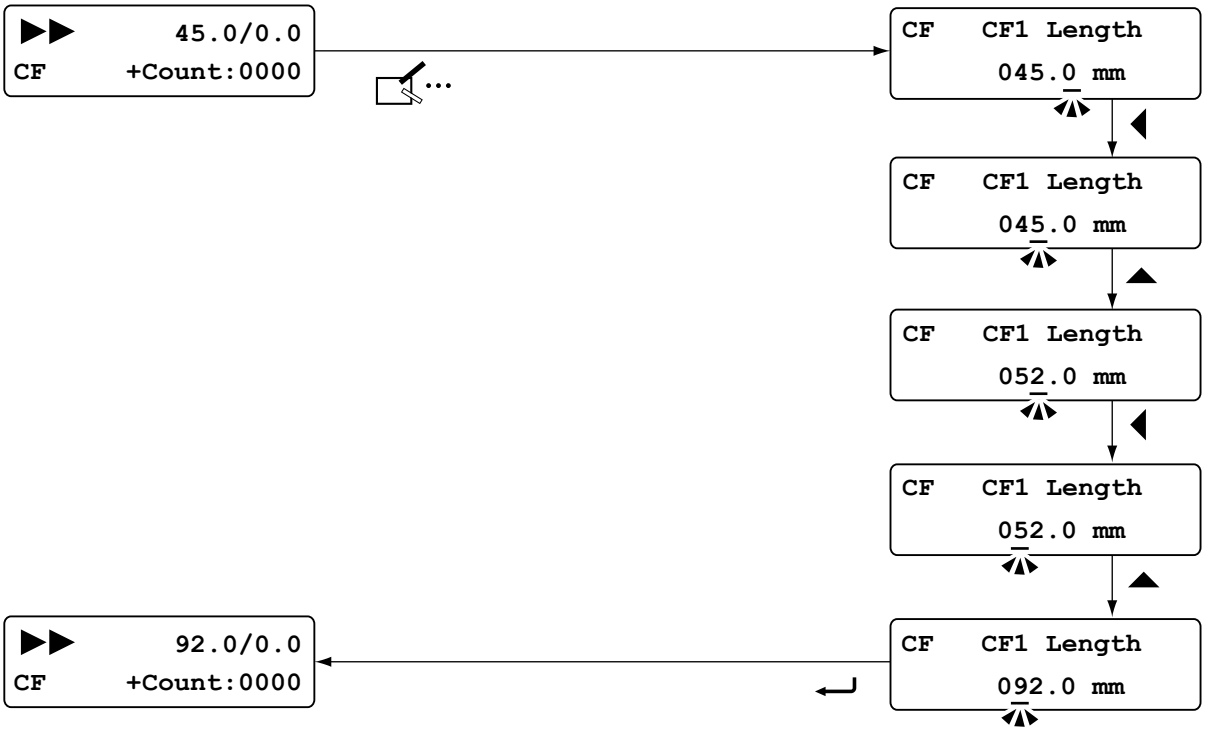
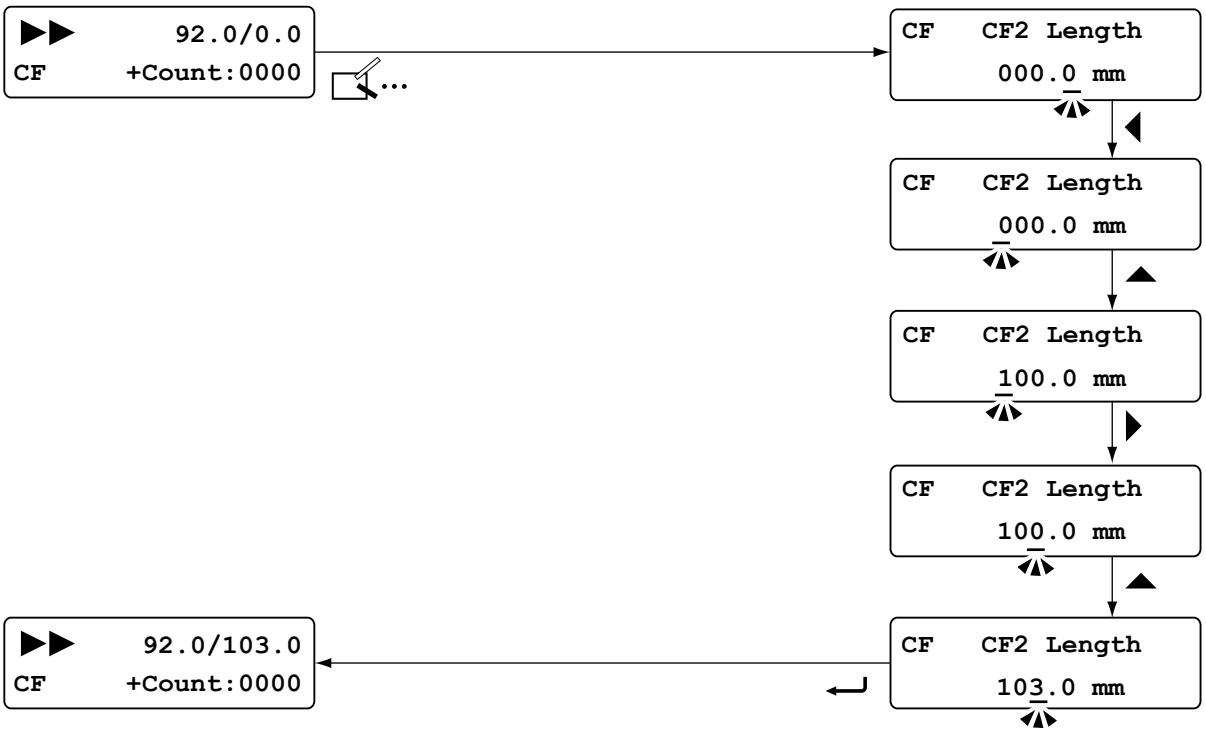
1 Press the ▱▱▱ key, and set the paper size to [CF].

2 Set the A measurement dimension to "92."



3 Set the B measurement dimension to "103."



2-3. Aligning stacker roller position

Stacker roller positioning table

Standard paper		Single fold	Double fold	Irregular accordion fold	Letter fold	Accordion fold	Gate fold
For EU	A3	2	6	2	4	4	2
	B4	2	6	3	5	5	3
	A4	4	6	4	6	6	4
	B5	5	6	4	6	6	5
	A5	5	6	5	6	6	5
	B6	6	6	6	6	6	6
For NA	LGR	1	5	1	4	4	2
	LGL	2	6	3	5	5	3
	LTR	4	6	4	6	6	4
	IN/ST	5	6	5	6	6	5

Finished size (mm/inch)	Stacker roller positioning
199 to 216/7.83 to 8.50	1
182 to 199/7.17 to 7.83	2
148.5 to 182/5.82 to 7.17	3
128 to 148.5/5.04 to 5.83	4
105 to 128.5/4.13 to 5.05	5
45.5 to 105/1.77 to 4.13	6

This table is the measure for use. Fine adjustment of the stacker roller position, based on the usage environment (temperature, humidity), paper quality, paper thickness, paper grain direction, cutting precision, print condition, and processing speed etc., is necessary.

Align the stacker roller position to "6."

Use the "stacker roller positioning table" as reference to set the stacker roller position.

☞ **Chapter 2 "3-4. Aligning stacker roller position" (p.23)**

2-4. Performing folding operation

☞ **Chapter 2 "3-7. Setting counter" (p.25)**
"3-8. Performing folding operation" (p.26)

3. Standard Folding of Non-Standard Size Paper

⚠CAUTION

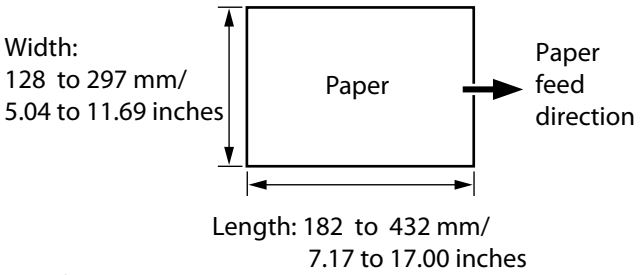
Do not put fingers inside during operation.
Keep away long hair, ties, jewelry and loose clothing.
It could cause injury.

Non-standard size paper refers to paper sizes other than the standard size paper (6 types).

The processable paper sizes are as follows.

Maximum: 297 x 432 mm/
(W x L) 11.69 x 17.00 inches

Minimum: 128 x 182 mm/
(W x L) 5.04 x 7.17 inches



For single folding, the processable minimum paper size is as follows.

Minimum (W x L): 90 x 128 mm/3.54 x 5.04 inches

The operating procedure is described with length 300 mm/11.81 inches paper subjected to "letter folding" as the example.

1 Measure the paper length.

2 Stack paper in the paper feed tray.

☞ **Chapter 2 "2-3. Stacking paper" (p.19)**

3 Set the paper size and folding mode.

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Rough adjustment knob set position table

L = Paper length

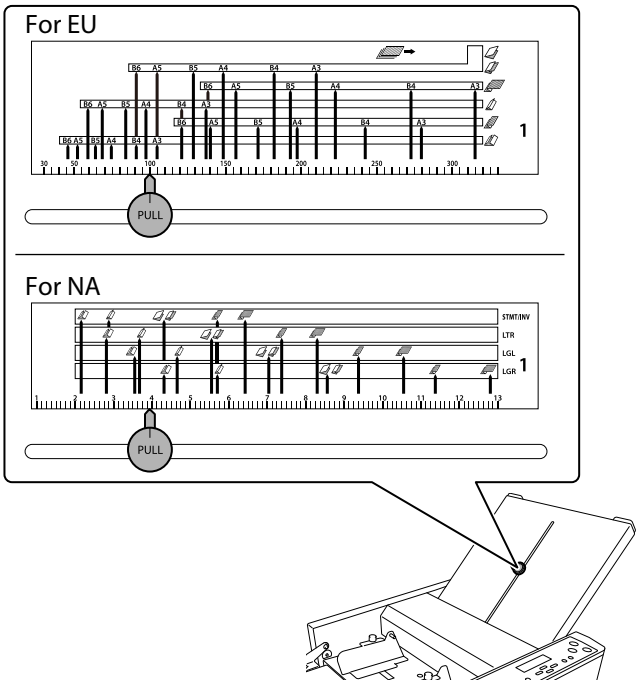
	Single fold	Double fold	Irregular accordion fold	Letter fold	Accordion fold	Gate fold
Folding plate 1	L/2	L/2	3L/4	L/3	2L/3	L/4
Folding plate 2	At the highest point	L/4	L/4	L/3	L/3	L/2

The following table shows a calculation example when length 300 mm/11.81 inches paper is processed at each folding.

See the reference example when performing the calculation.

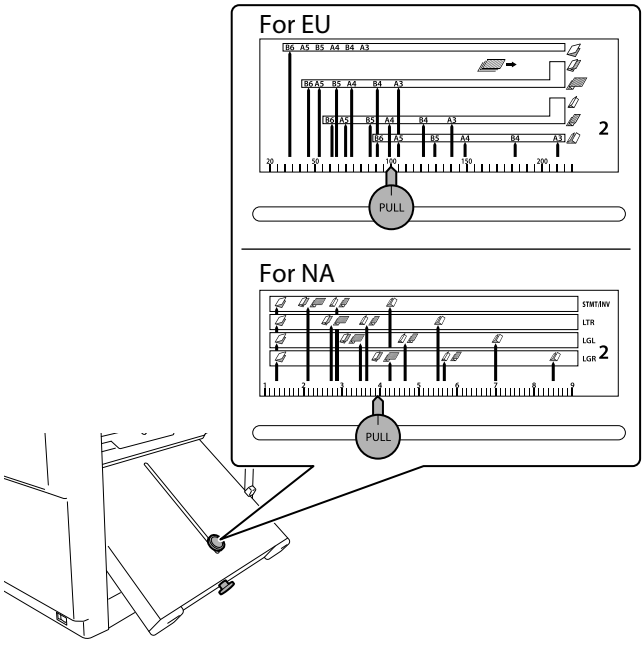
		Single fold	Double fold	Irregular accordion fold	Letter fold	Accordion fold	Gate fold
Folding plate 1	EU	300/2=150	300/2=150	900/4=225	300/3=100	600/3=200	300/4=75
	NA	11.81/2=5.905	11.81/2=5.905	35.43/4=8.857	11.81/3=3.937	23.62/3=7.873	11.81/4=2.952
Folding plate 2	EU	—	300/4=75	300/4=75	300/3=100	300/3=100	300/2=150
	NA		11.81/4=2.952	11.81/4=2.952	11.81/3=3.937	11.81/3=3.937	11.81/2=5.905

1) While pulling up the rough adjustment knob of the folding plate 1, move it to the "100"/"3.937" position.
2) If the rough adjustment knob is misaligned from the scale, rotate the fine adjustment knob either right or left, and align the rough adjustment knob to the scale.



3) Using the same procedure as 1) and 2), align the rough adjustment knob of the folding plate 2 to the "100"/"3.937" position.

Go to step 5.



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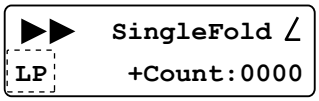
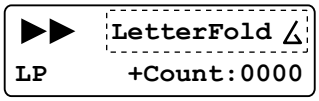
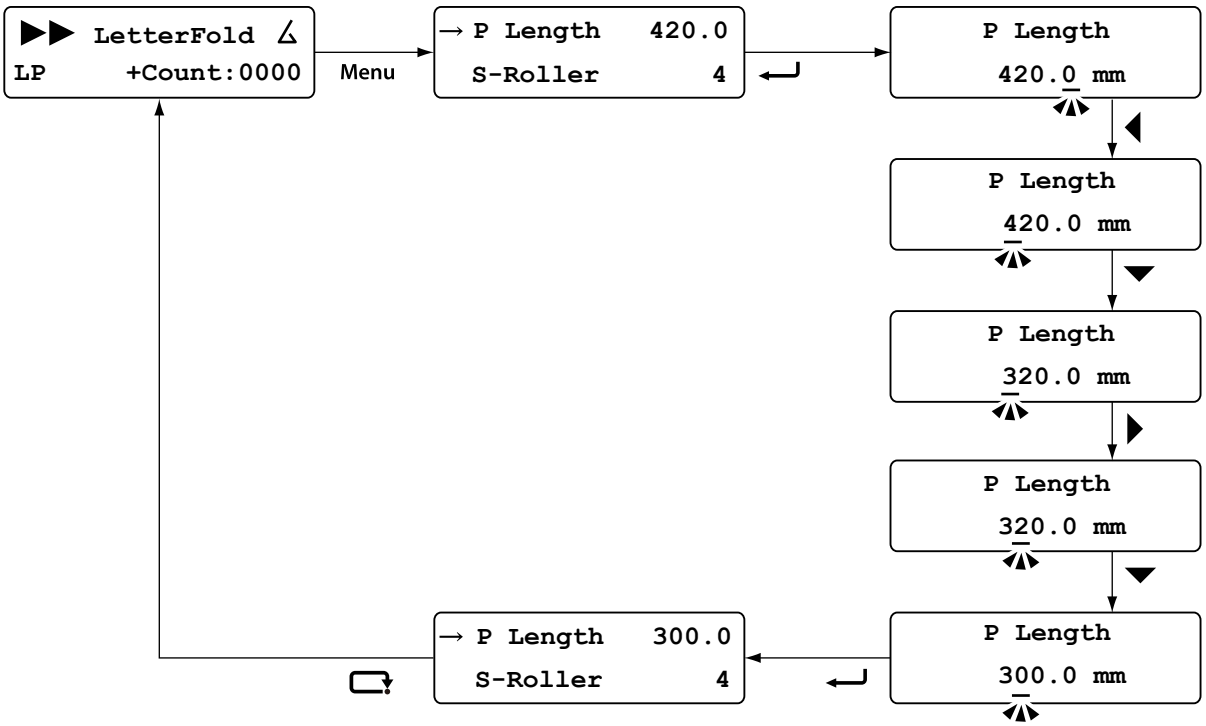
1) Press the ▭▭▭ key, and set the paper size to [LP].



2) Press the ▯ key, and set the folding mode to [LetterFold].



4 Set paper length.



5 Press the Ⓣ key for test folding.

☞ **Chapter 2 "3-6. Performing test folding" (p.24)**

6 Set the counter.

☞ **Chapter 2 "3-7. Setting counter" (p.25)**

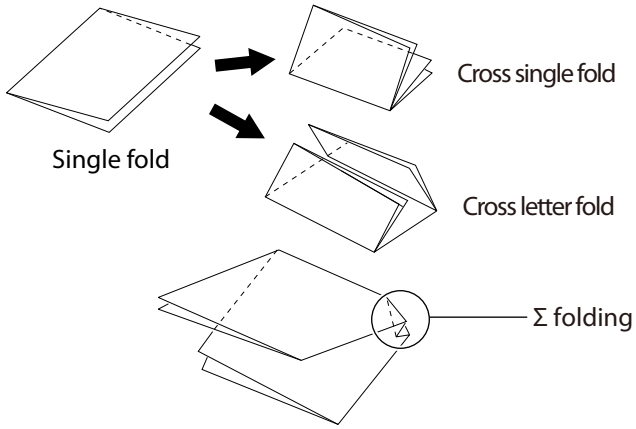
7 Start the folding operation.

☞ **Chapter 2 "3-8. Performing folding operation" (p.26)**

If performing custom folding, see "2.Custom Folding of Standard Size Paper" (p.31).

4. Cross Folding

Cross folding refers to paper where single folding has been performed, and then single folding is performed again, or letter folding is performed.



- The upper limit of paper thickness is fine quality paper 104.7 g/m^2/27.8 lb.
- While the paper Σ folding, or left and right direction misalignment, etc., can become larger depending on the usage environment and other conditions, this is not a machine breakdown.

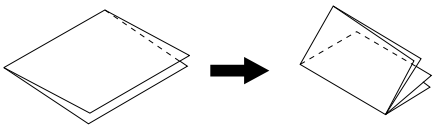
⚠CAUTION

Do not put fingers inside during operation.
Keep away long hair, ties, jewelry and loose clothing.
It could cause injury.

4-1. Cross folding of standard size paper

The paper size that can be cross folded is A3, B4, A4 and B5 (EU)/LGR, LGL, LTR, STMT and INV (NA).
In cross folding, paper cannot be stacked lengthwise.

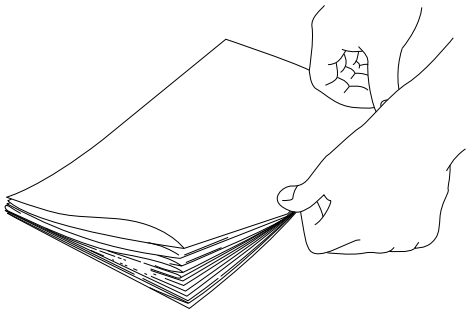
The operating procedure is described with B4 size paper subjected to "cross single folding" as the example.



Paper stacking

1 **Perform single folding of B4 paper, in accordance with Chapter 2 "3. Standard Folding of Standard Paper" (p.20).**

2 **Use fingertips to firmly hold down the folding line on single-folded paper.**
If the fold line is not firmly crushed (folded), the paper feed may become unstable, and become a source for Σ folding.

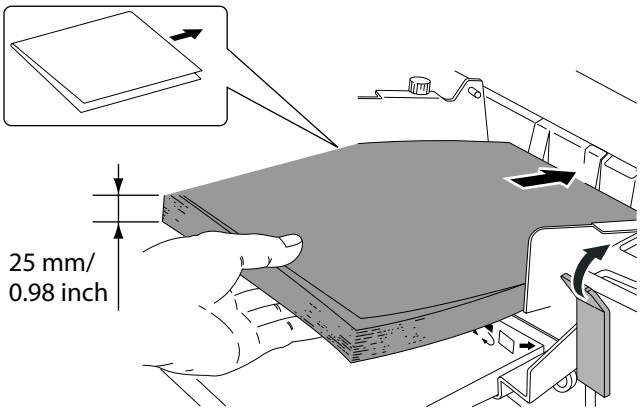


3 Stack single-folded paper in the paper feed tray.

☞ Chapter 2 "2-3. Stacking paper" (p.19)

Stack single-folded paper in the paper feed tray with the fold line side pointing toward the reverse operation side.

The paper stacking volume is limited to a height of about one-half (25 mm/0.98 inch) of the paper feed guide on the fold line side.



Paper size, folding mode settings

1 Set the paper size.

Reference the following table "Paper size setting table" to set the paper size.

Paper size setting table

Paper size before folding	EU				NA				
	A3	A4	B4	B5	LGR	LGL	LTR	STMT	INV
Cross single fold	A4	A5	B5	B6	LTR	STMT	INV	✕(*)	✕(*)
Cross letter fold									

(*) Can be folded as a non-standard size paper.

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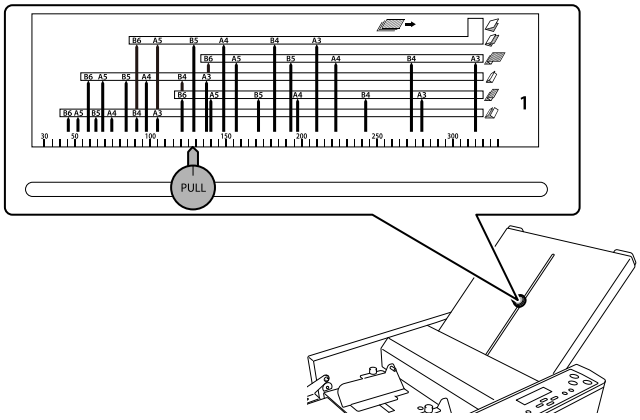
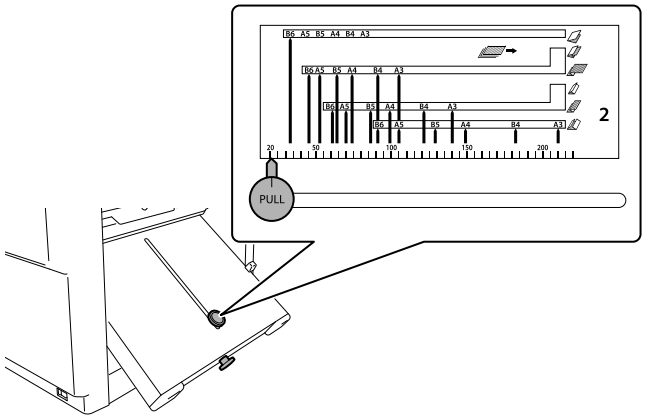
1) Align the rough adjustment knob of the folding plate 1 to the "Single Fold" and "B5" position.



2) Move the rough adjustment knob of the folding plate 2 to the highest point.
3) Rotate the fine adjustment knob for the folding plate 2 to the left, and adjust so that the stopper is completely and lightly bumped.



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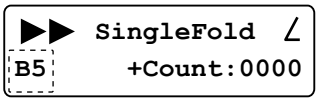
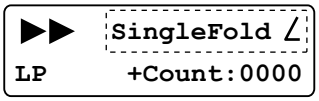
1) Press the ▭▭▭ key, and set the paper size to [B5].



2) Press the ▯ key, and set the folding mode to [SingleFold].



Stacker roller setting

The DF-870 stacker roller automatically moves to align with paper size or folding form. Go to "Auxiliary paper feed ring positioning" (p.41).

Align the stacker roller position.

☞ **Chapter 2 "3-4. Aligning stacker roller position" (p.23)**

Because this is the B5 size single fold, the stacker roller position becomes [5].

Auxiliary paper feed ring positioning

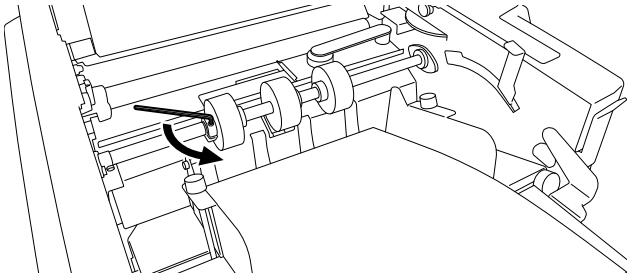
1 Open the top cover.

⚠WARNING

Open or close the top cover gently.
Hands or fingers may be caught in the cover section. Doing so may result in injury.

2 Use the attached L-shaped hex wrench to loosen the screws on the auxiliary paper feed ring (for moving).

Do not use the L-shaped hex wrench for anything other than the auxiliary paper feed ring indicated in this manual.

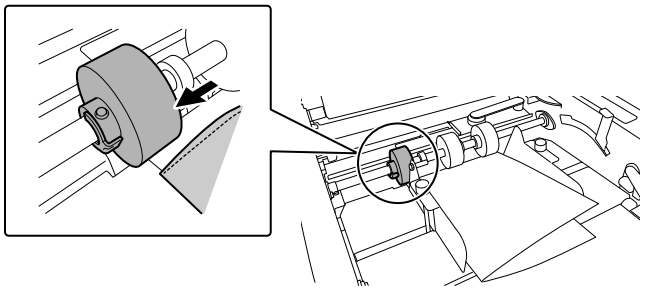


⚠WARNING

Do not disassemble the product more than needs.
Fire, electrification, injury, malfunction, or breakdown may be caused by disassembling the parts which are not specified in this manual.

3 **Move the auxiliary paper feed ring.**

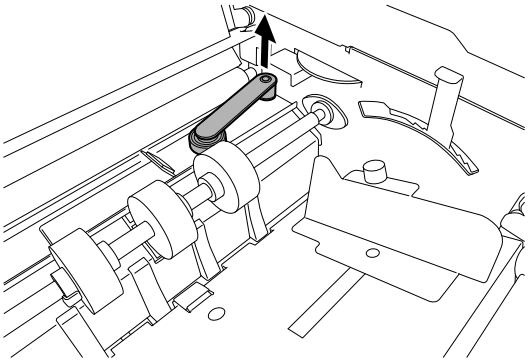
Move the auxiliary paper feed ring on the paper folding line.



4 **Tighten the loosened screws.**

5 **Remove the cross folding lever.**

6 **Close the top cover.**

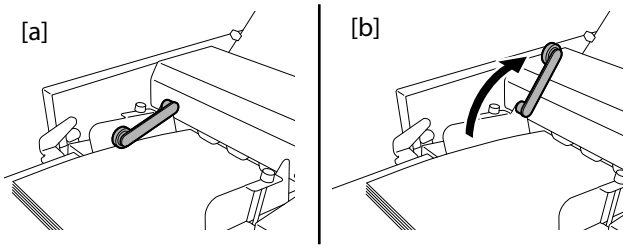


Attaching the cross folding lever

Attach the cross folding lever to the pillar on the paper feed guide.

[a] Attach the cross folding lever so that the weight roller on its tip comes to the fold line.

[b] When refilling the paper, lift the cross folding lever as shown in the figure.



Various adjustment lever positioning and test folding

Perform the operations in Chapter 2 "3-3. Aligning paper feed pressure adjustment lever position" (p.22) to "3-6. Performing test folding" (p.24).

Folding operation

1 **Perform the operations in Chapter 2 "3-7. Setting counter" (p.25) to "3-8. Performing folding operation" (p.26).**

2 **After the operation is ended, store the cross folding lever at its original position.**

3 **Return the auxiliary paper feed ring to its original position.**

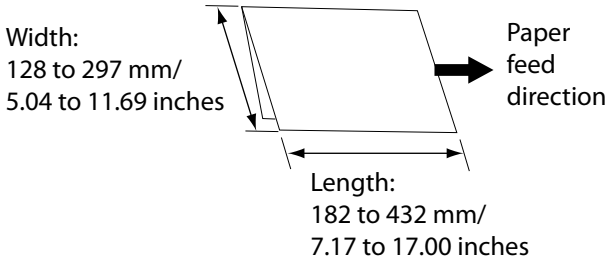
4-2. Cross folding of non-standard size paper

Non-standard size paper refers to sizes of paper other than the standard size paper (6 types).

Paper capable of cross folding comes within the following range of paper sizes after single folding has been performed.

Maximum: 297 x 432 mm/
(W x L) 11.69 x 17.00 inches

Minimum: 128 x 182 mm/
(W x L) 5.04 x 7.17 inches



For cross single folding, the processable minimum paper size is as follows.

Minimum (W x L): 90 x 128 mm/3.54 x 5.04 inches

The operating procedure is described with length 300 mm/11.81 inches paper subjected to "cross single folding" as the example.

1 Perform "Paper stacking" in "4-1. Cross folding of standard size paper". (p.39)

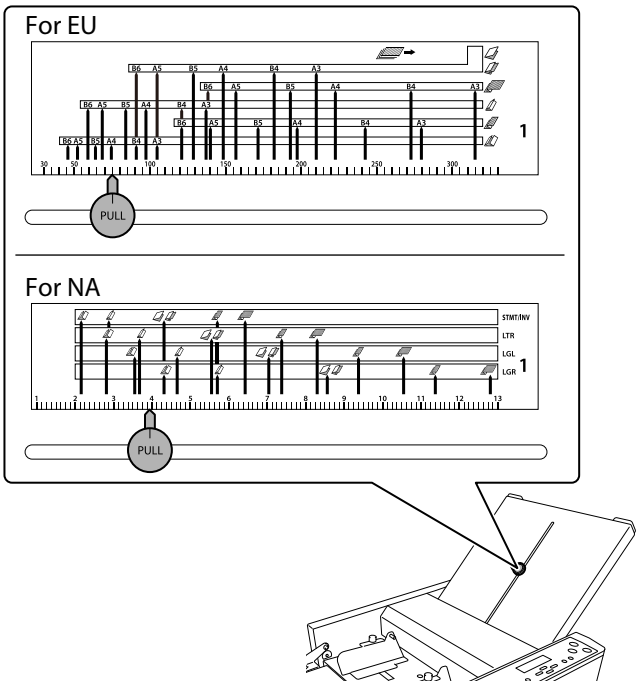
2 Set the paper size and folding mode.

DF-850

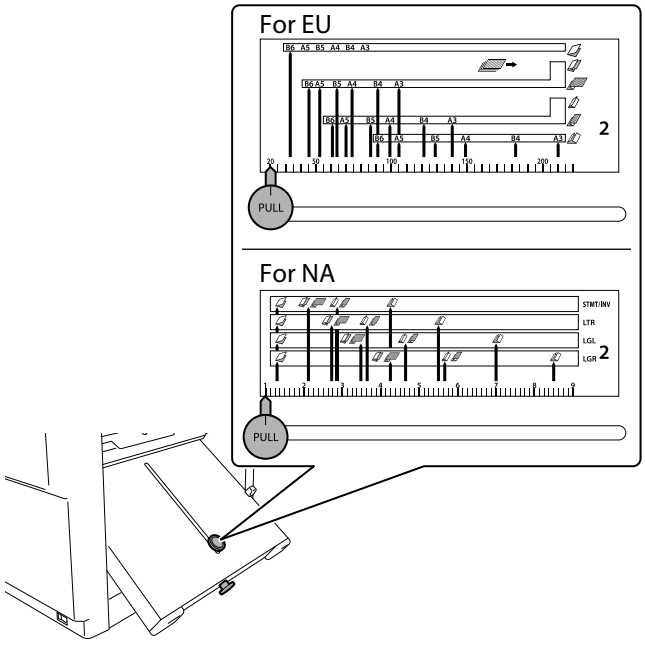
1) Move the rough adjustment knob of the folding plate 1 to the "75"/"2.95" position.

   For the paper length calculation method, see the "Rough adjustment knob set position table" (p.36).

2) If the rough adjustment knob is misaligned from the scale, rotate the fine adjustment knob either right or left, and align the rough adjustment knob to the scale.

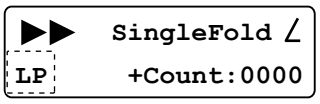


3) While pulling on the rough adjustment knob of the folding plate 2, move to the highest point.
4) Rotate the fine adjustment knob for the folding plate 2 to the left, and adjust so that the stopper is completely and lightly bumped.

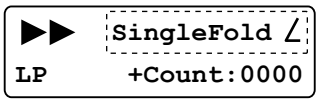


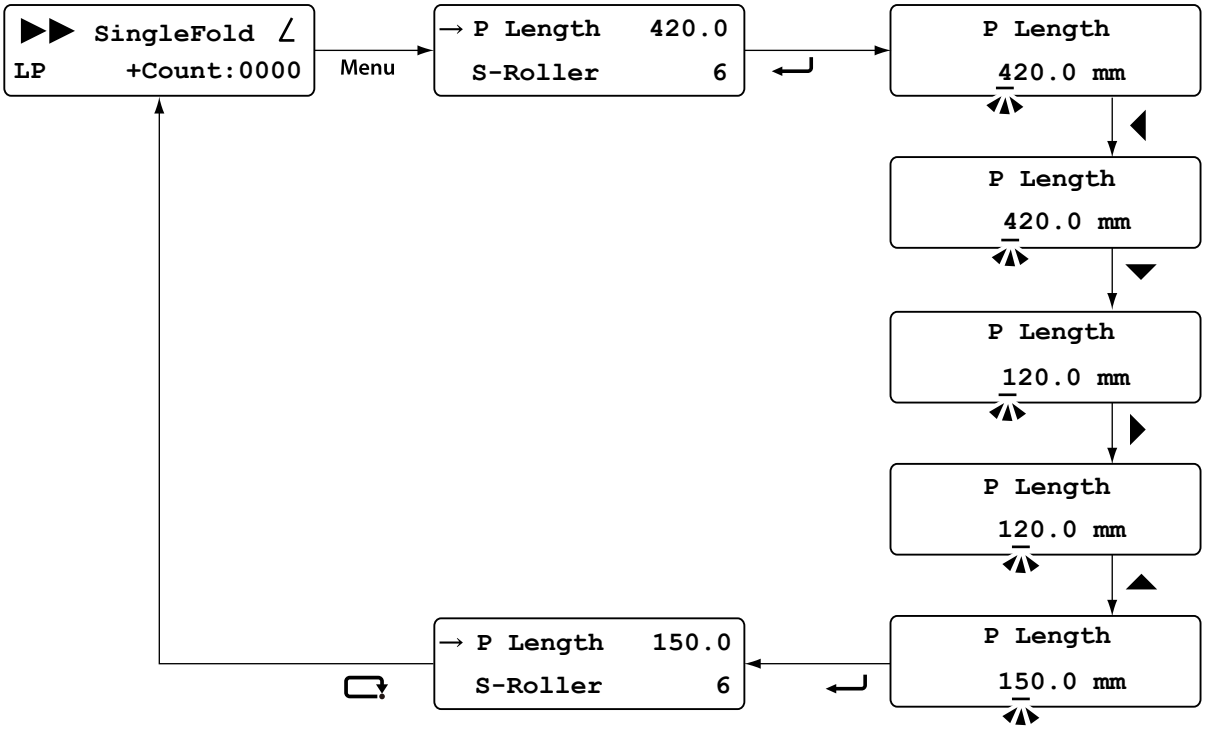
DF-870

1) Press the key, and set the paper size to [LP].



2) Press the key, and set the folding mode to [SingleFold].
3) Input the paper length "150."
   For the paper length calculation method, see the "Rough adjustment knob set position table" (p.36).





3 **Perform "Stacker roller setting" (p.41) to "Folding operation" (p.42) in "4-1. Cross folding of standard size paper".**

5. Using Specific Paper

⚠CAUTION

Do not put fingers inside during operation.
Keep away long hair, ties, jewelry and loose clothing.
It could cause injury.

5-1. Art paper, coated paper

- By their specifications, art paper or coated paper use print ink, etc., to adhere to paper, becoming difficult to peel off, and easier for two sheet feeds to occur. When using art paper or coated paper, observe the following procedures to perform the operations.
- Art paper or coated paper that are made of recycled paper may lack of stiffness, and may not be suitable for processing.
- The recommended ream weight is 104.7 to 127.9 g/m^2/27.8 to 33.9 lb. Depending on the usage environment or other conditions, the processing may not go very well.

1 **Carefully separate the paper.**

Art paper and coated paper adhere more easily than copy paper or other fine quality paper, and carefully separate them.

2 **Arrange the paper.**

3 **Stack paper in the paper feed tray.**

☞ **Chapter 2 "2-3. Stacking paper" (p.19)**

Keep the volume of paper stacked in the paper feed tray to a minimum.

A general guide is about half the height (about 25 mm/0.98 inch) of the paper feed guides. If the volume of paper is too large, the weight will cause the paper to adhere together, making peeling off difficult, and occurrence of two sheet feeds.

4 **Perform the operations in Chapter 2 "3-1. Selecting paper size" (p.20) to "3-8. Performing folding operation" (p.26).**

- Paper feed pressure adjustment lever
  DF-870: Set to [3].
  If paper mis-feed has occurred, raise the paper feed pressure to [4] or [5].
  DF-850: Set to ≡ (thick paper).
- Separation pressure adjustment dial (DF-870 only)
  Set to [2.5].
  When two-sheet feed has occurred, raise the separation pressure by [0.5] scale points at a time.

- If paper mis-feed still occurs even after the paper feed pressure and separation pressure are adjusted, set the [Feed Time] to [Long].

5 After the operations are ended, restore the paper feed pressure and separation pressure.

If copy paper or fine quality paper is used in the setting of art paper or coated paper, the strong paper feed pressure could cause two-sheet feeds, while the strong separation pressure could cause damage to the front edges of the paper.

6 Return the auxiliary paper feed ring to its original position.

7 If the [Feed Time] is changed, return the setting to [Mid].

5-2. Rough paper, recycled paper

Rough paper and recycled paper are thin paper lacking stiffness. Perform processing with caution for the following points.

- Before stacking in the paper feed tray, carefully separate the paper.
- Set the processing speed to low.
  If the processing speed is high, it could result in paper wrinkling or abnormal folding.
- Set the paper feed pressure to low.
  If the paper feed pressure is high, it could result in two-sheet feeds.

5-3. B7, A6 size paper (For EU)

The B7, A6 size paper can be processed under the following conditions.

Paper stacking orientation: Vertical stacking

Folding form: Single fold

There are limits to the folding form depending on paper quality and paper size.
If paper is small and light, a high processing speed could result in chaining (hooked feeds). Keep the processing speed as low as possible.

6. Adjusting Misalignment

Folding misalignment consists of two types, "up/down direction misalignment" and "left/right direction misalignment." Moreover, in addition to that, factors such as paper characteristics, etc., can also lead to "abnormal folding."

Misalignment of the folding position can occur, based on the usage environment (temperature, humidity), paper quality, paper thickness, paper grain direction (vertical, horizontal), cutting precision, and print condition, etc.

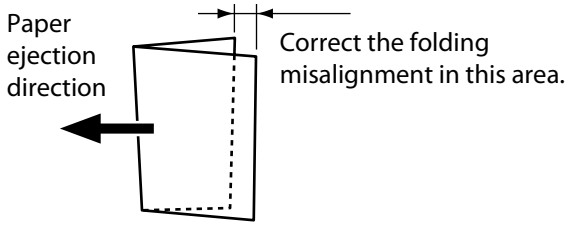
6-1. Correcting folding misalignment along vertical length of paper

If the folding position is misaligned in the up/down direction, use of the following method to change the folding stopper position, and perform fine adjustment of the folding dimension, can correct the misalignment.

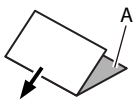
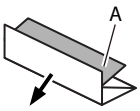
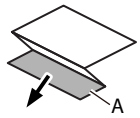
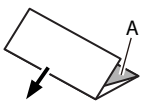
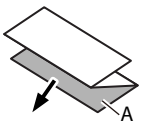
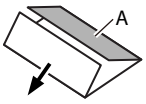
DF-870

The folding stopper fine adjustment position cannot be registered. If the paper size and folding mode has been reset, or the power switch has been turned off, the folding stopper is automatically returned to the setting position.

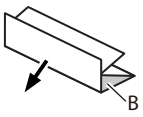
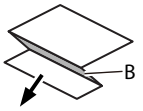
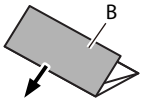
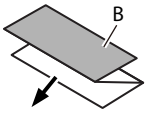
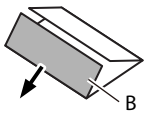
Perform the adjustment again.



Folding plate 1

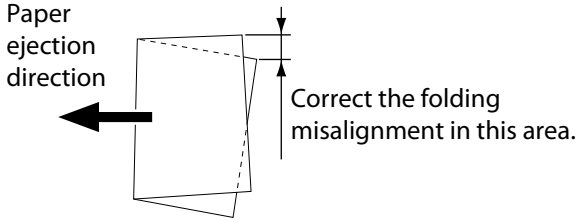
Folding mode		Folding surface A	DF-850	DF-870
			Fine adjustment knob	(Folding stopper 1 adjustment) key
Single fold		A is long		key → [F1 Adjust] → ▼ key
		A is short		key → [F1 Adjust] → ▲ key
Double fold		A is long		key → [F1 Adjust] → ▼ key
		A is short		key → [F1 Adjust] → ▲ key
Irregular accordion fold		A is long		key → [F1 Adjust] → ▲ key
		A is short		key → [F1 Adjust] → ▼ key
Letter fold		A is long		key → [F1 Adjust] → ▼ key
		A is short		key → [F1 Adjust] → ▲ key
Accordion fold		A is long		key → [F1 Adjust] → ▲ key
		A is short		key → [F1 Adjust] → ▼ key
Gate fold		A is long		key → [F1 Adjust] → ▼ key
		A is short		key → [F1 Adjust] → ▲ key

Folding plate 2

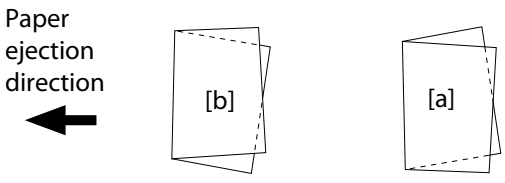
Folding mode		Folding surface B	DF-850	DF-870
			Fine adjustment knob	(Folding stopper 2 adjustment) key
Single fold	Folding plate 2 is not used.			
Double fold		B is long		key → [F2 Adjust] → ▼ key
		B is short		key → [F2 Adjust] → ▲ key
Irregular accordion fold		B is long		key → [F2 Adjust] → ▼ key
		B is short		key → [F2 Adjust] → ▲ key
Letter fold		B is long		key → [F2 Adjust] → ▲ key
		B is short		key → [F2 Adjust] → ▼ key
Accordion fold		B is long		key → [F2 Adjust] → ▲ key
		B is short		key → [F2 Adjust] → ▼ key
Gate fold		B is long		key → [F2 Adjust] → ▲ key
		B is short		key → [F2 Adjust] → ▼ key

6-2. Correcting folding misalignment along sides of paper

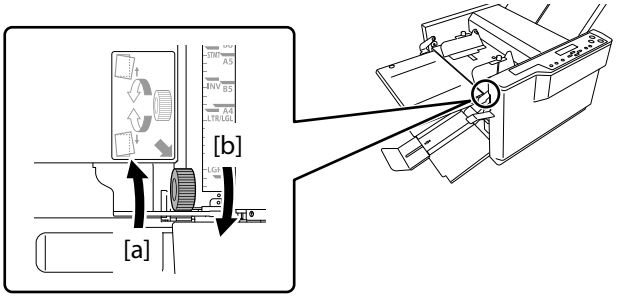
If the folding position is misaligned in the left/right direction, use the slant correction knob to adjust the misalignment.



1 Check the folding misalignment conditions.

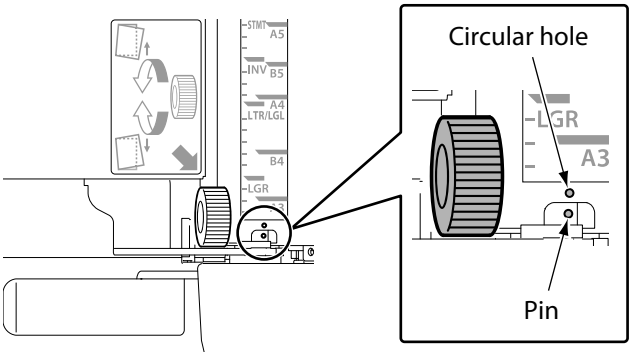


2 **Rotate the slant correction knob in the direction of the arrow shown in the figure, to adjust the misalignment.**



3 **After the operation is ended, return the slant correction knob to its original position.**

The guide is a position where pin align with round hole in the paper feed tray.



7. Function Settings

Function settings can adjust in support of operating procedures or various paper types, according to use.

7-1. Operation modes

Operation mode refers to setting operations for the stoppers for the folding plate 1 and folding plate 2 when the power is first turned on.

[STD] (Standard)	Function for starting up in the normal setting condition when the power is turned on.
[LF] (Last fold mode)	Function for starting up using the setting last used on the machine the previous time. If the power is turned off during paper folding operation, the setting information is not stored.
[SF](Stopper fixed mode)	Function for omitting the operations panel setting when always processing using the same conditions. The machine is constantly set automatically using the same conditions. When the power is turned on, the initial operation is no longer performed. Because automatic setting is performed under the same conditions, the paper size and folding mode cannot be changed. Folding misalignment in the up or down direction will occur if the power is turned on after turned off during operation of the folding stopper or during temporary stop caused by opening the cover. In this case, be sure to press the C key while pressing the ⟲ key to forcibly eject paper when you turn on the power.

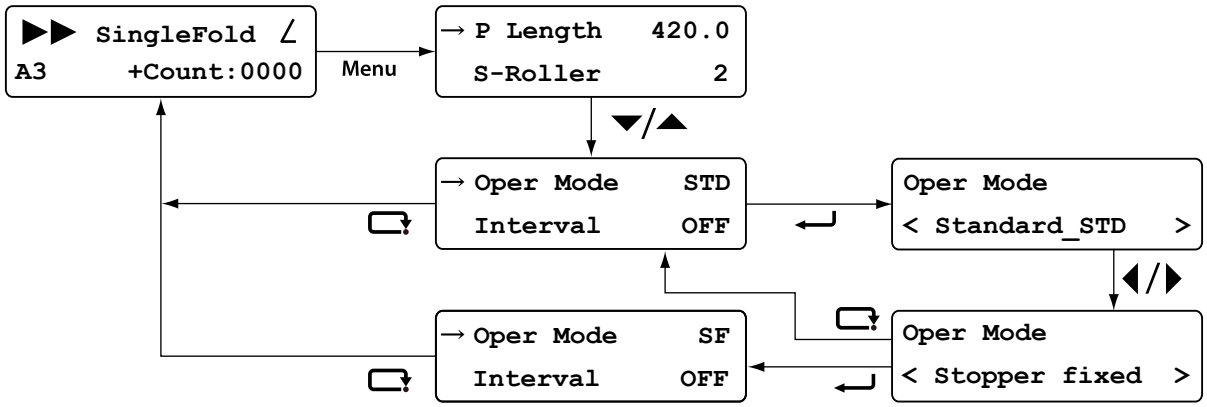
The items stored in each mode are as follows.

		Operation mode when the power is turned on		
		[STD]	**[LF]**	**[SF] (*1)**
Folding stopper fine adjustment value (*1)	Folding 1	Default value	√	√ (*2)
	Folding 2			
Processing speed		Set when the power is turned on.	√	√
Counter	Add count mode	Default value	√	Default value
	Subtract count mode			
Folding mode (*1)		Default value	√	
Paper size (*1)		Default value	√	
Menu	[P Length] (*1)	Default value	√	√
	[S-Roller] (*1)			
	[Oper Mode]	√		
	[Interval]	Set when the power is turned on.		
	[P-Save Time]	√		
	[Interv Sht]			
	[Power Save]			
	[P-Save Time]			
	[Load Detect]	Default value	Default value	Default value
	[Tone]	√	√	√
	[DEF Speed]			
	[DEF INTVL]			
	[Feed Time]			
	[Feed INTVL]			

(*1) DF-870 only

(*2) Only for custom fold of non-standard folding paper

Example: Set to [SF] (Stopper fixed mode)



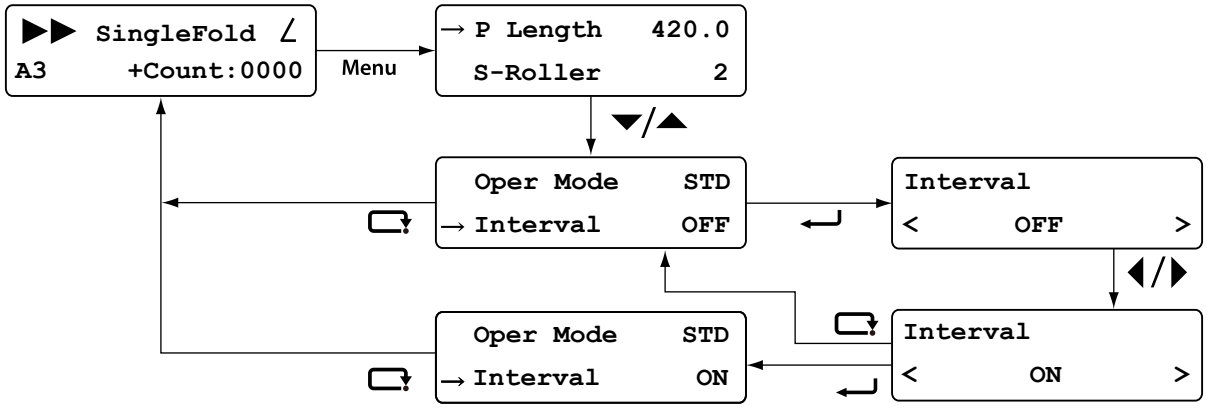
7-2. Interval functions

The interval (batch) function refers to a function for a fixed time interruption of processing operations at a specified number of sheets.

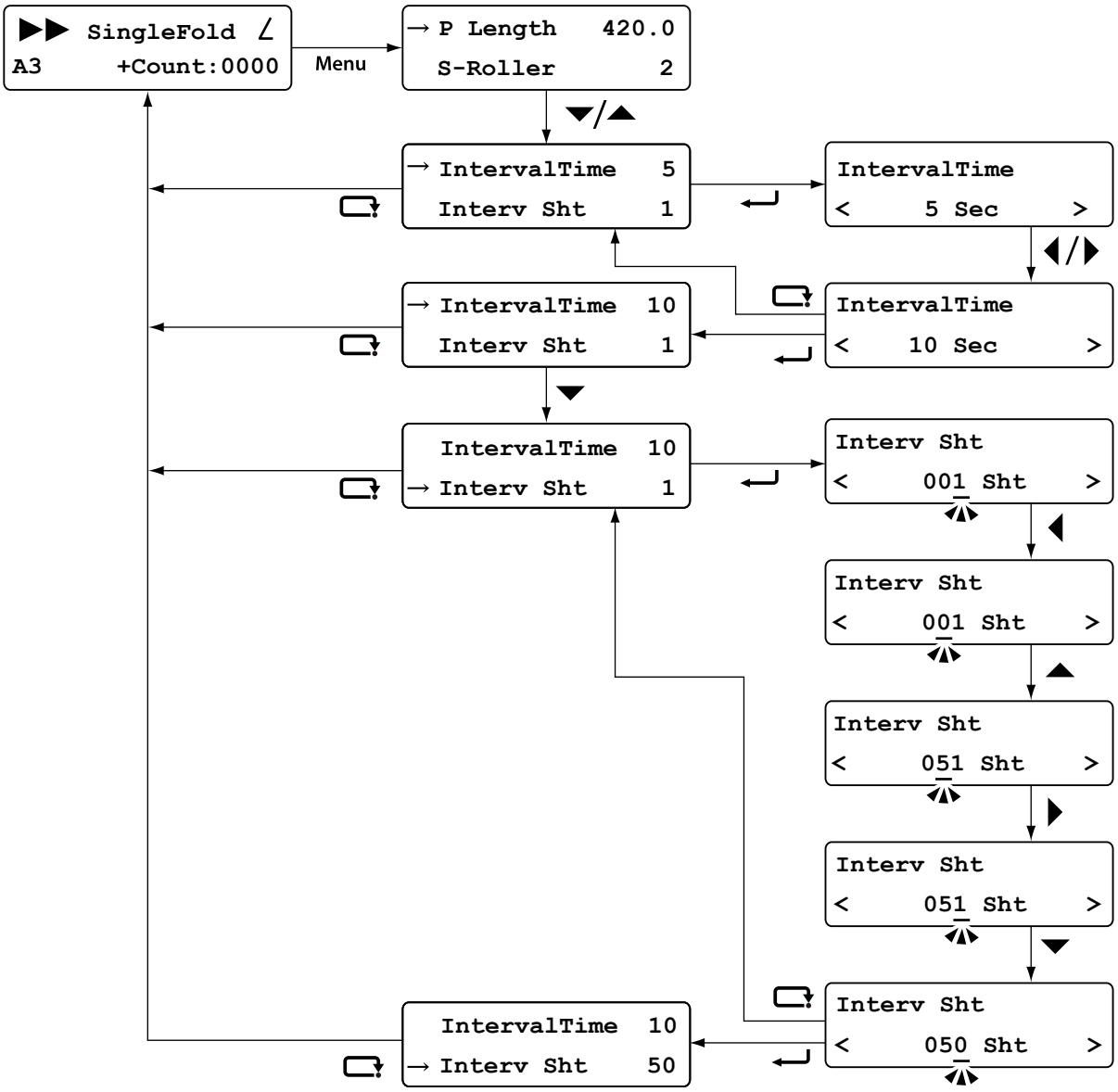
During this interruption the ejected paper is removed, enabling a reduction in the post-processing operations load.

If wanting to set the interval function to [ON], change [Interval] to [ON].

If using the interval function, set [Interval] each time you turn on the power.



Example: Setting to interrupt the process for 10 seconds, every 50 sheets



If the sheet number set by the subtraction counter differs from the sheet number set in the interval, the sheet number set by the subtraction counter takes priority.

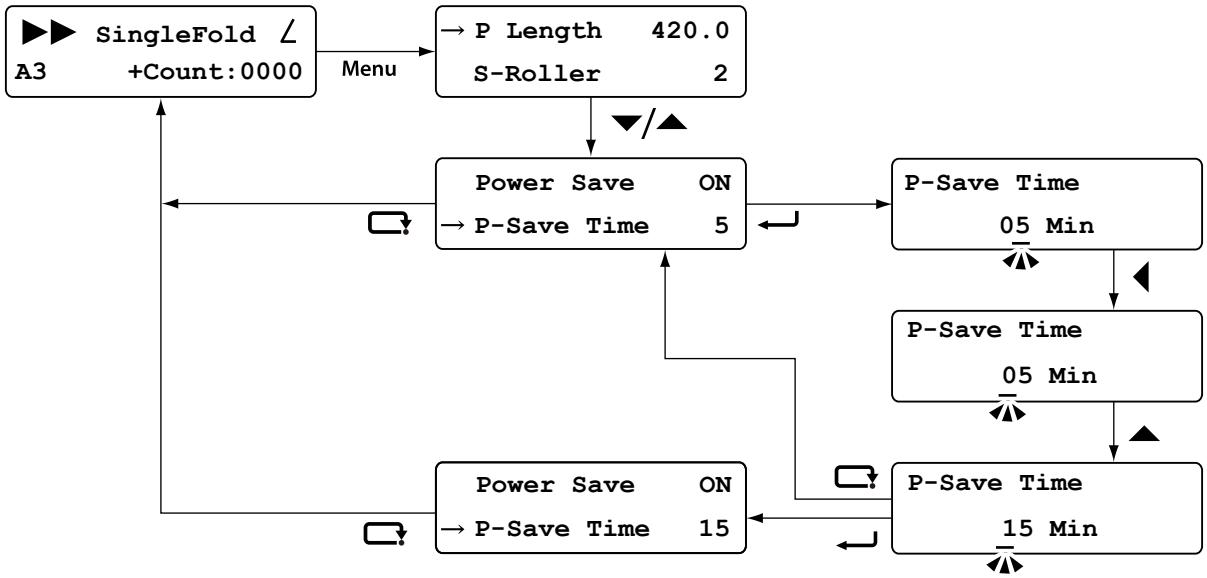
For example, if the interval is set to 20 sheets and the subtraction counter to 50 sheets, the 20 sheets will be set in 2 set processing (total of 40 sheets process completed), followed by the start of the third set, but the machine stops after 10 sheets process completed because the subtraction counter is functioning. If the ◇ key is pressed after the machine shutdown, the remaining 10 sheets process is ended, and an interval is entered.

7-3. Energy-saving setting

If set to energy-saving mode, and the machine is not operated for a fixed time, the machine is switched to a energy-saving state.

Pressing any key on the operations panel, or opening the top cover, can be used to exit the energy-saving state.

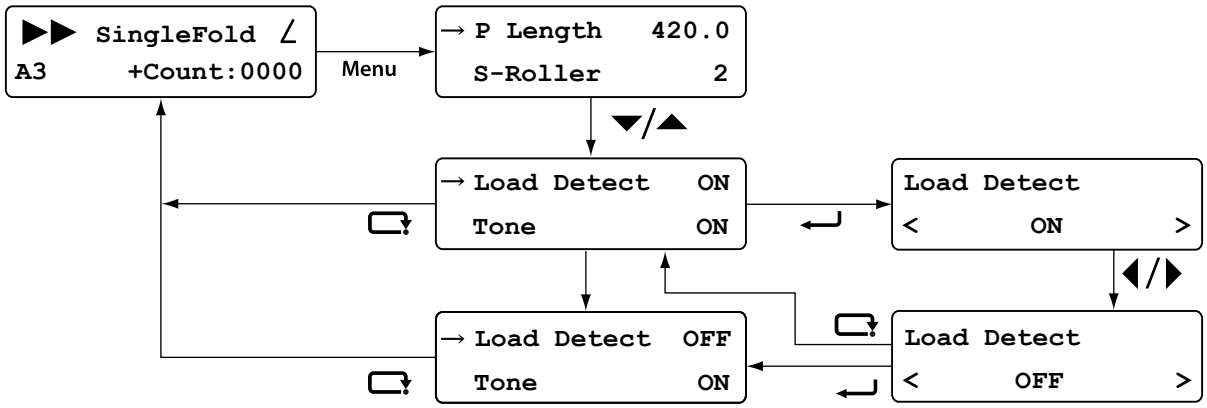
Example: Set to switch to energy-saving state if there has been no operation for 15 minutes



If wanting to set the energy-saving mode to [OFF], switch [Power Save] to [OFF].

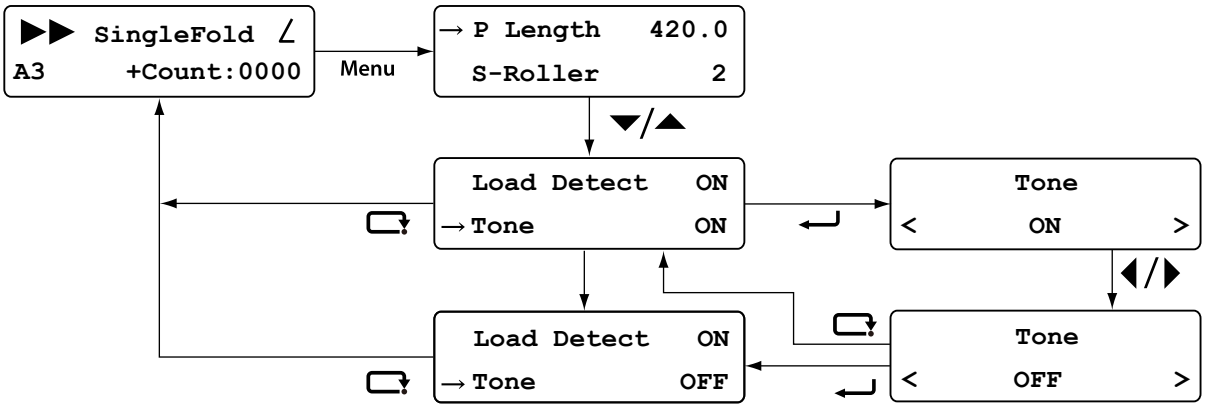
7-4. Paper stacking detection setting

When [Paper Empty] is displayed even when there is paper stacked in the paper feed tray, set the paper stacking detection to [OFF]. If a detection error continues even when sensor cleaning is performed, contact your dealer.



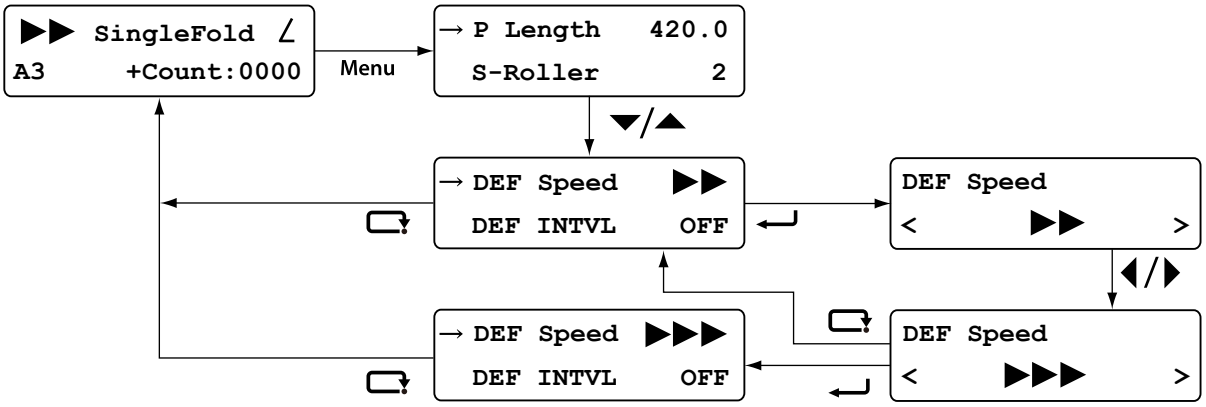
7-5. Buzzer setting

Set whether or not the buzzer (key operation sound on the operation panel) shall be enabled.
However, the buzzer will go off in case of abnormality even when the setting is [OFF].



7-6. Read setting for processing speed (with power switched on)

The currently selected process speed number can be confirmed.
The process speed setting number is changed by [ON][OFF] in [Feed INTVL].



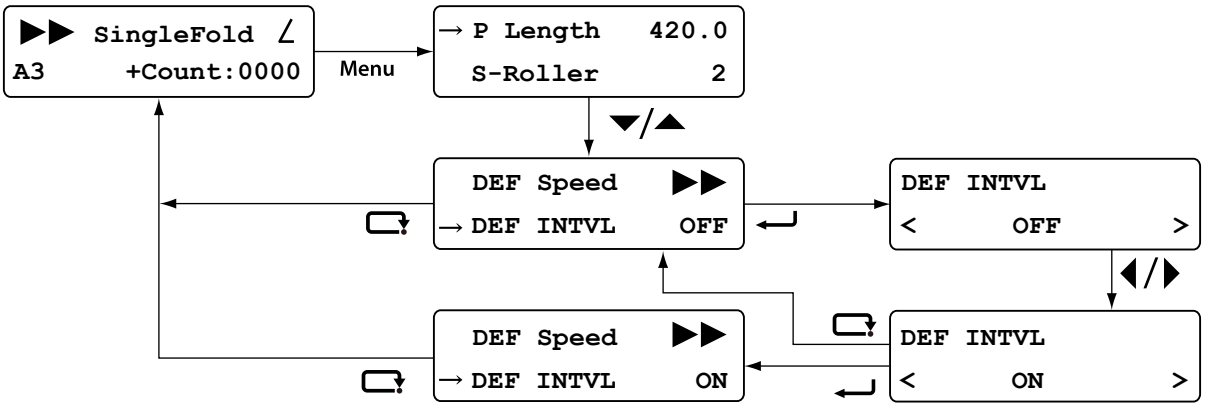
7-7. Read setting for interval function (with power switched on)

When [Oper Mode] is set to [STD], this function is for omitting the operations panel setting every time you want to perform process with the same interval function (*) as previous one.

(*) [IntervalTime] and [Interv Sht]

When you set [DEF INTVL] to [ON], it is unnecessary to set the operation panel because the machine starts up with an already set interval function.

When you set [DEF INTVL] to [ON], the already set interval function is kept even though [Interval] is set to [OFF].

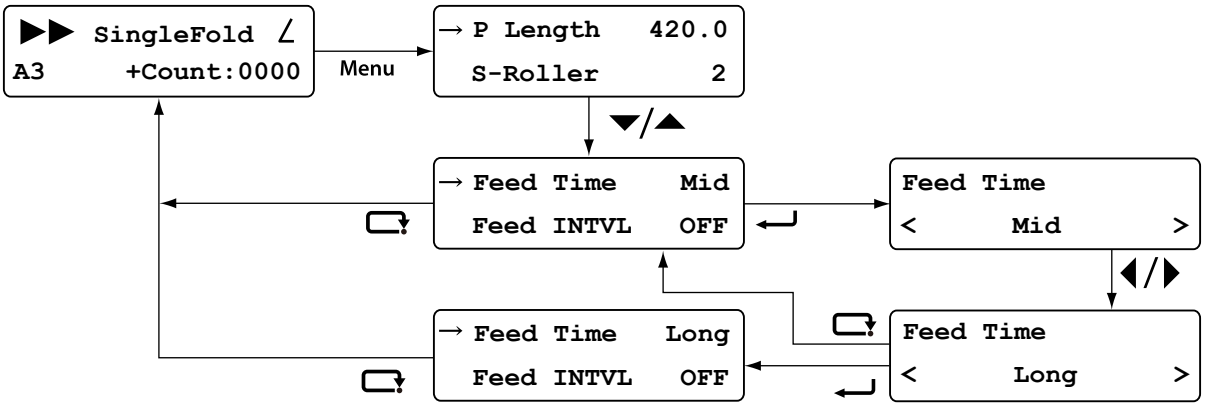


7-8. Paper feed timing setting

Set the paper feed ring operation time.

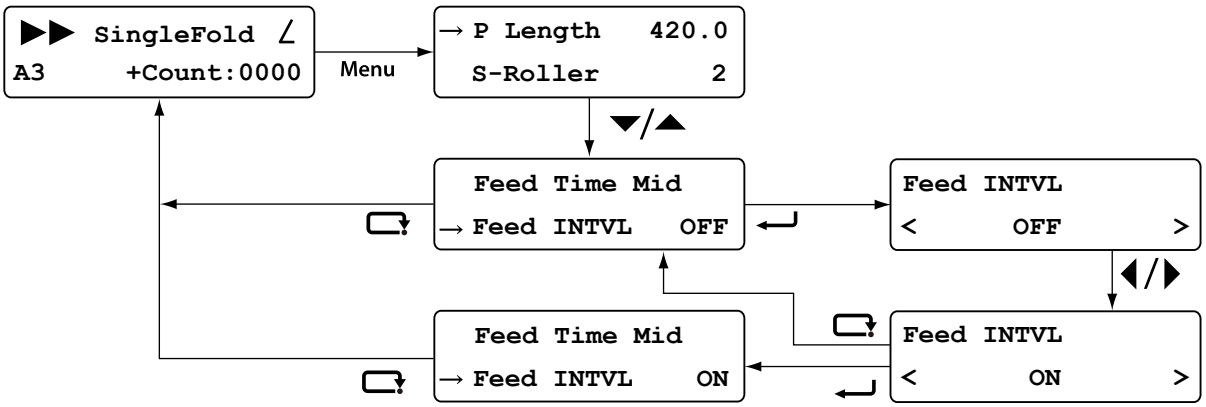
When using paper in the long paper feed direction, or when using thick paper, art paper, or coated paper, the paper feed performance can be boosted by lengthening the paper feed ring operations time.

When using paper in the short paper feed direction, do not set to [Long].



7-9. Processing speed selection number setting

The processing speed has four stages; [▶], [▶▶], [▶▶▶], and [▶▶▶], and when [Feed INTVL] is set to [ON], [▶] and [▶▶] also become selectable. However, use [▶] and [▶▶▶] only with standard folding of standard size paper.



Chapter 4 Maintaining the Machine

- **Make sure that you disconnect the power cord from the wall outlet before cleaning.**
- **Before you use the machine after cleaning, make sure that its surface is completely dry.**

⚠CAUTION

Do not use flammable sprays and solvents during cleaning, etc. of internal parts of the machine and in the vicinity of the machine.
Doing so could cause build-up of gas inside the machine, which in turn could cause ignition, resulting in fire and explosion.
When using alcohol, exercise precaution against fire and ventilate well, and after use, store in a safe place.
Use of other solvents may damage the rubber rollers and resin inside the machine, resulting in malfunction.

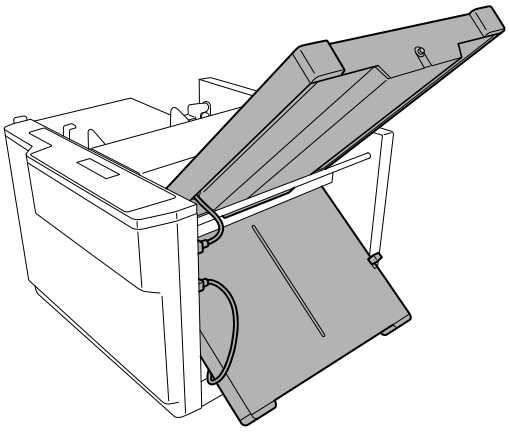
1. Cleaning Each Part

⚠WARNING

Open or close the top cover gently.
Hands or fingers may be caught in the cover section. Doing so may result in injury.

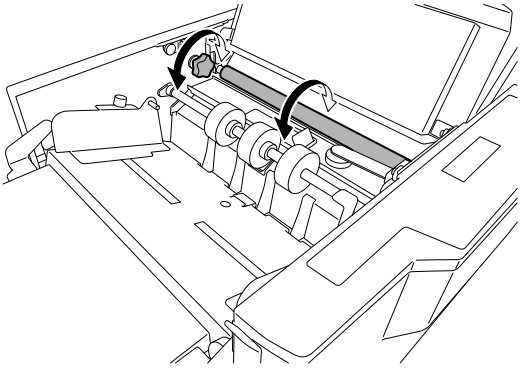
1-1. Cleaning rubber roll

1 **Remove each folding plate.**
Use the reverse procedure to Chapter 1 "Attaching the folding plate" (p.4) to perform removal.



2 **Open the top cover.**

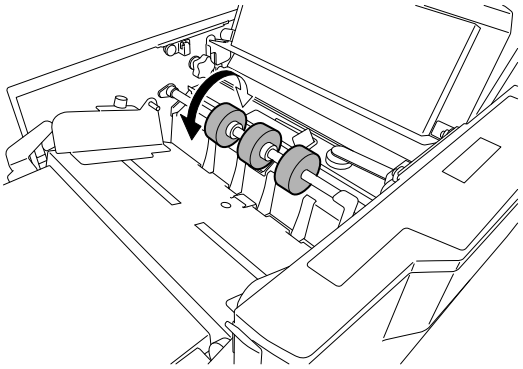
3 **While rotating the jam correction knob to rotate the rubber roller, wipe down with an alcohol-saturated cloth.**
In the DF-850, there is no jam correction knob. Rotate the rubber roller by hand.



1-2. Cleaning paper feed rings

1 **Open the top cover.**

2 **While rotating the paper feed ring by hand in the direction of the arrow, wipe down with an alcohol-saturated cloth.**

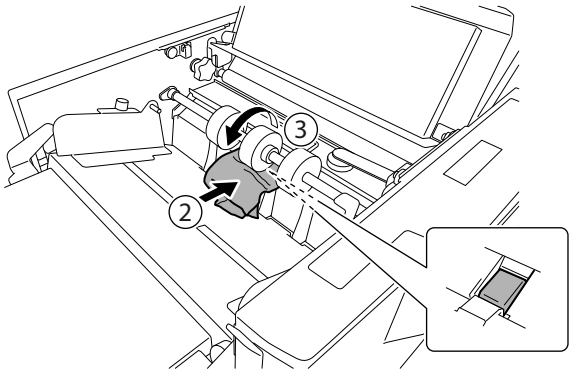


1-3. Cleaning paper separator

1 **Open the top cover.**

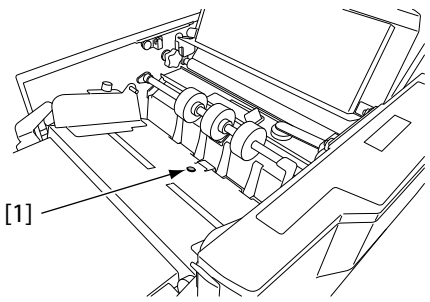
2 **Insert an alcohol-saturated cloth between the paper feed ring (center) and paper separator.**

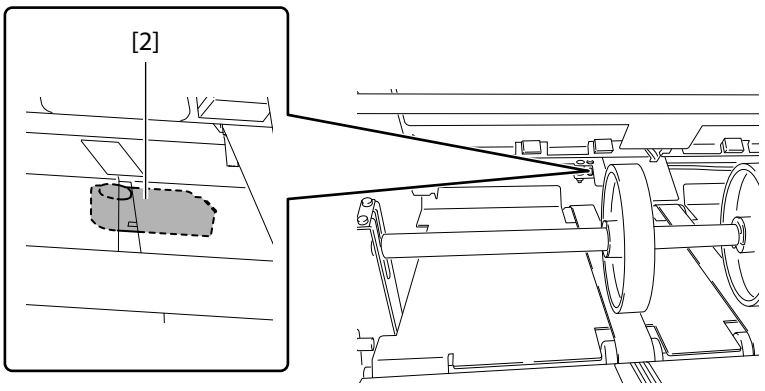
3 **Rotate the paper feed ring in the direction of the arrow.**



1-4. Cleaning sensors

If the sensor is dirty, there is a possibility that the detection function will fail to operate correctly. Use a dust removal spray to remove the dust.



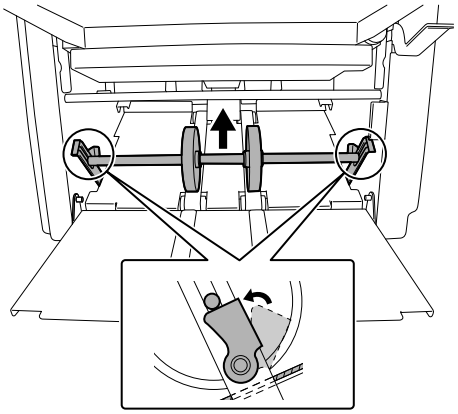


[1] Paper sensor
[2] Paper exit sensor

1-5. Cleaning paper ejection belts

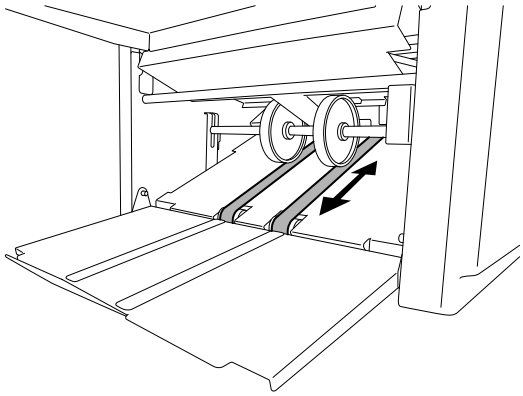
1 **Lift up the stacker roller by hand, and lift the levers (two locations right and left) attached to the stacker lever, in the direction of the arrow.**

The stacker roller is left floating above the belt surface.



2 **Slowly push up the stacker roller to the [6] position.**

3 **While rotating the paper ejection belts by hand, wipe down with an alcohol-saturated cloth.**



4 **Return the stacker roller to its original position.**

Chapter 5 Trouble Guide

1. Error Code

Check the error code and solve the problem by following the list below.
If the error persists or occurs frequently, contact your dealer.

1-1. Error relating to cover and folding plate

Error Code	Cause	Solution
U1000	The top cover is open.	Close the top cover.
U1500	The folding plate 1 has not been installed properly.	Install the folding plate 1 properly.
U1501	The folding plate 2 has not been installed properly.	Install the folding plate 2 properly.

1-2. Paper jam error

Error Code	Cause	Solution
J6001	A paper jam has occurred at the paper feed section.	Remove the jammed paper.
	A mis-feed has occurred at the paper feed section.	Stack paper properly on the paper feed tray.
J6002	A paper jam has occurred at the paper exit section.	Remove the jammed paper.

If the paper jam error still occurs after you perform the solutions in this list, clean the sensor.
☞ **Chapter 4 "1-4. Cleaning sensors" (p.58)**

1-3. Motor error

Error Code	Cause	Solution
E2221	A paper jam has caused the conveyance motor to become overloaded.	Remove the jammed paper and turn off and on the power.
E2402 (*)	A paper jam has caused the positioning motor of the stacker to become overloaded.	Remove the jammed paper and turn off and on the power.
E2412 (*)	A paper jam has caused the stopper motor of the folding plate 1 to become overloaded.	Remove the jammed paper from the leading end of the folding plate 1, then turn off and on the power.
E2422 (*)	A paper jam has caused the stopper motor of the folding plate 2 to become overloaded.	Remove the jammed paper from the leading end of the folding plate 2, then turn off and on the power.

(*) DF-870 only

1-4. Other errors

Error Code	Cause	Solution
U2001	There is no paper on the paper feed tray.	Stack paper on the paper feed tray.
U2007 (*)	The paper set lever is not down.	Lower the paper set lever. The paper feed tray will go up.
E5770 (*)	The control cable of the folding plate 1 has not been connected properly.	Turn off the power and connect the control cable properly.
E5771 (*)	The control cable of the folding plate 2 has not been connected properly.	Turn off the power and connect the control cable properly.

(*) DF-870 only

1-5. Errors requiring a service call

When the following error codes are displayed, turn off and on the power. If the error is not solved by turning off and on the power, contact your dealer.

E2220
E2400 (*)
E2401 (*)
E2410 (*)
E2411 (*)
E2420 (*)
E2421 (*)
E4210
(*) DF-870 only

2. Paper Jam

⚠CAUTION

Do not put fingers inside during operation.

Keep away long hair, ties, jewelry and loose clothing.

It could cause injury.

⚠WARNING

Open or close the top cover gently.

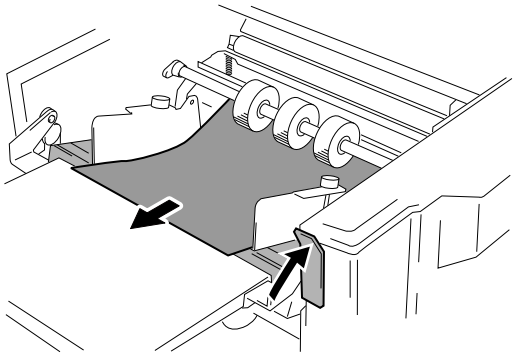
Hands or fingers may be caught in the cover section. Doing so may result in injury.

When paper jams, remove the paper in the following way.

2-1. Paper feed ring

1 **Raise the paper set lever to lower the paper feed tray downwards.**

2 **Pull the jammed paper towards you.**



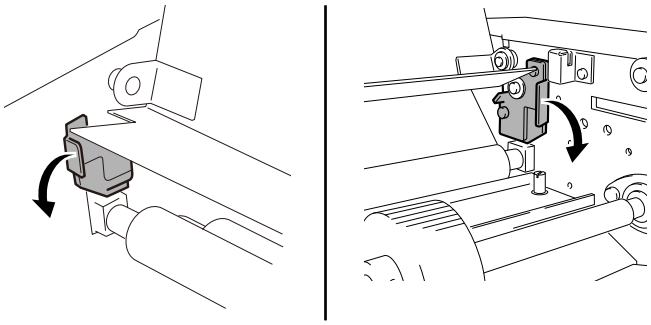
When a paper has coiled around a rubber roller

1 **Open the top cover.**

2 **When the bearing support lever is holding the bearing, rotate the bearing support lever in the direction of the arrow.**

The bearing is released.

The bearing support lever is found in two locations, the operations side and reverse operations side.



3 **Pull the coiled paper towards you to remove it.**

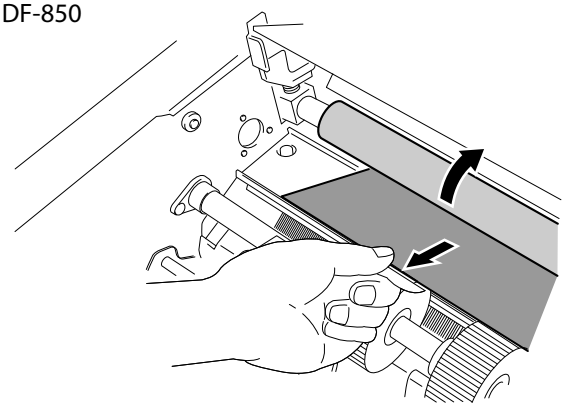
DF-850

When the paper does not come out, use both hands to rotate the rubber roller in the direction of the arrow shown in the figure, and remove the paper.

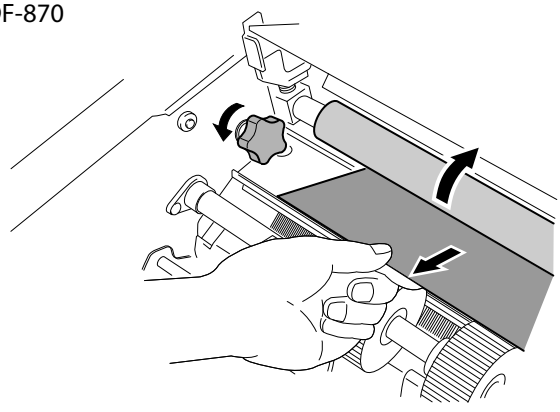
DF-870

Remove the paper while turning the jam correction knob.

DF-850



DF-870



4 **Return the bearing support levers.**

2-2. Folding plate

DF-850

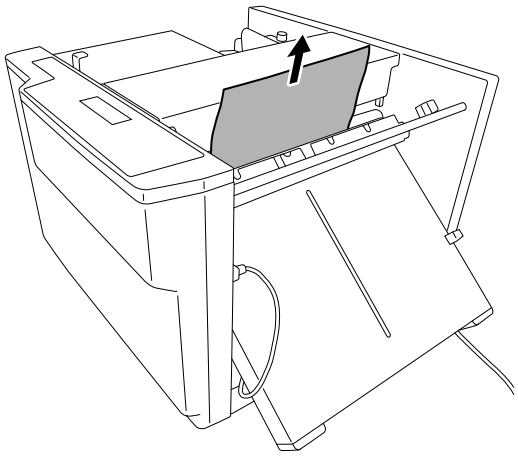
Folding plate 1

1 **Turn off the power.**

☞ **Chapter 2 "1-2. Turning off power" (p.17)**

2 **Remove the folding plate 1.**

Use the reverse procedure to Chapter 1 "Attaching the folding plate" (p.4) to perform removal.



3 **Remove the jammed paper.**

4 **Attach the folding plate 1.**

For the attaching procedure, see Chapter 1 "2-3.Attaching parts" (p.4).

5 **Check whether the folding plate 1 is correctly attached.**

Folding plate 2

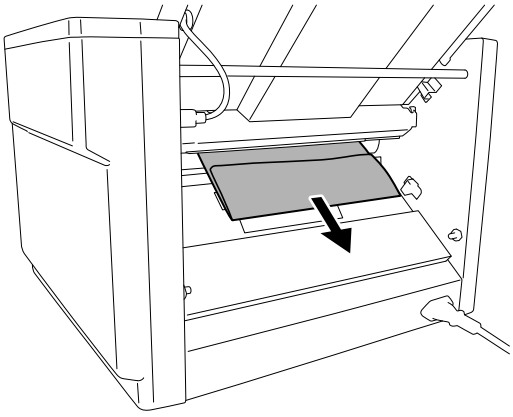
1 **Turn off the power.**

☞ **Chapter 2 "1-2. Turning off power" (p.17)**

2 **Remove the folding plate 2.**

Use the reverse procedure to Chapter 1 "Attaching the folding plate" (p.4) to perform removal.

3 **Remove the jammed paper.**



4 **Attach the folding plate 2.**

For the attachting procedure, see Chapter 1 "2-3. Attaching parts" (p.4).

5 **Check whether the folding plate 2 is correctly attached.**

DF-870

With the ⇄ key pressed down, press the C key.

Forcibly eject the paper inside the folding plate.

Because forcible ejection of paper inside the folding plate moves the folding stopper, releasing the pressed key will not stop the forcible paper ejection action until the folding stopper is returned to the home position.

If paper cannot be obtained even when forcible paper ejection is performed, check the jammed paper position, and use the "DF-850" (p.63) procedure to remove the paper.

2-3. Ejecting section

With the ⇄ key pressed down, press the T key.

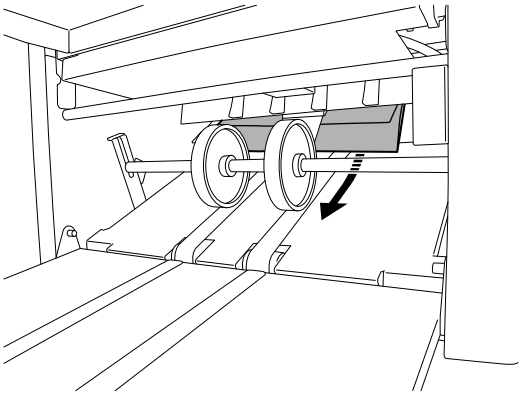
Forcibly eject the paper.

Perform forcible paper ejection while the key is pressed down.

When the pressed key is released, the forcible paper ejection stops.

If paper cannot be obtained even when forcible paper ejection is performed, check the jammed paper position, and use the following method to remove the paper.

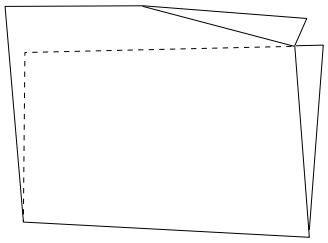
Remove the jammed paper.



3. Handling of Abnormal Fold

Depending on the paper characteristics, etc., the paper may sometimes not fold correctly. In this case, check the following points.

- Do not use paper outside of specifications.
  This often happens particularly when using thin paper lacking stiffness.
- When abnormal folding occurs with thin paper lacking stiffness, lower the processing speed.
- Carefully separate the paper before stacking it.
- Check whether the folding plate is correctly attached.

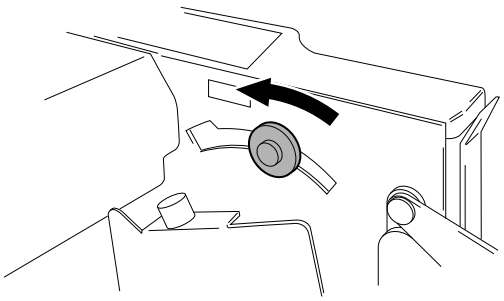


- Because there is a possibility of static electricity occurring in the paper, use a static electricity removal spray, available on the market, on the rubber roller.

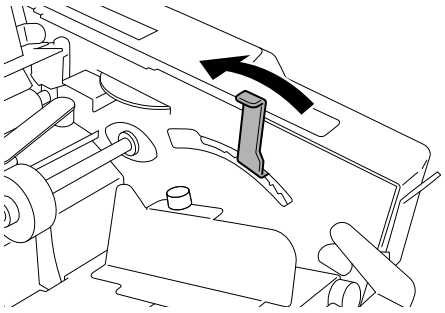
4. Handling of Mis-Feed

- Increase the paper feed pressure.
  Check the paper feed state of the paper, and raise the paper feed pressure adjustment lever by one step at a time.

DF-850



DF-870

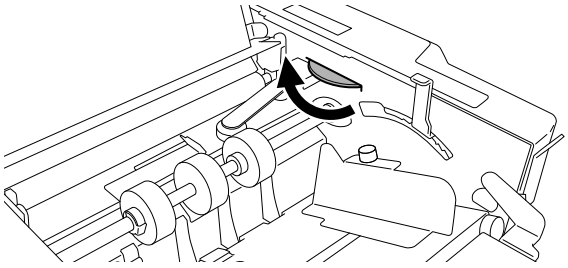


- Before stacking, carefully separate the paper.
- Reduce the paper stacking volume.

5. Handling of Chains

Chaining (hooked feeds) refers to the next paper feed linked to paper from an earlier paper feed.

- Increase the separating pressure. (DF-870 only)
  Check the paper feed state of the paper, and raise the paper feed pressure adjustment lever by one step at a time.
- Before stacking, carefully separate the paper.
- Reduce the paper stacking volume.



6. Troubleshooting

⚠WARNING

Do not use a flammable static electricity removal spray.
Doing so could cause build-up of gas inside the machine, which in turn could cause ignition, resulting in fire and explosion.

Condition	Cause	Solution
The machine does not start even when pressing the (Start) or (Test) key.	The power cord is not inserted to the wall socket.	Insert the power cord to the wall socket.
	The power is not on.	Turn on the power switch. **(p.17)**
	There is no paper on the paper feed tray.	Stack paper on the paper feed tray. **(p.19)**
	Paper has not reached the guide plate of the paper feed tray.	Push in the paper until its lead edge touches the guide plate. **(p.19)**
	A paper jam has occurred.	Remove the jammed paper. **(p.61)**
	The top cover is open.	Close the top cover.
	A trouble has occurred inside the machine.	Contact your dealer.
	The paper feed tray has been lowered. (DF-870)	Lower the paper set lever to raise the paper feed tray. **(p.20)**
When pressing the (Start) or (Test) key, the paper feed ring rotates, but a paper is not fed.	The paper has not been fanned well.	Fan the paper well. **(p.14)**
	The paper is curled.	Straighten the paper curl. **(p.14)**
	The paper is thick.	Increase the paper feed pressure.
	The paper is outside the specifications.	Use paper that meets specifications.
	The paper feed tray has been lowered. (DF-850)	Lower the paper set lever to raise the paper feed tray. **(p.20)**

Condition	Cause	Solution
The paper is not folded at the proper folding position.	The paper folding plate is not installed properly.	Install the paper folding plate properly. **(p.4)**
	Static electricity has occurred in the paper.	Fan the paper well. **(p.14)**
		Spray a commercially-available air duster on the rubber roll.
		Use thicker paper.
Paper is double-feed frequently.	The paper feed pressure is strong.	Decrease the paper feed pressure.
	The paper separator is dirty.	Clean it with alcohol. **(p.58)**
	The sheets of paper are sticking to each other and cannot be separated.	Fan the paper well. **(p.14)**
	The paper is outside the specifications.	Use paper that meets specifications.
	A trouble has occurred inside the machine.	Contact your dealer.
Paper is mis-feed at the paper feed section frequently.	The paper feed pressure is weak.	Increase the paper feed pressure.
	The separating pressure is strong.	Decrease the separating pressure.
	The paper feed ring is dirty.	Clean it with alcohol. **(p.58)**
	The sheets of paper are sticking to each other and cannot be separated.	Fan the paper well. **(p.14)**
	The paper is outside the specifications.	Use paper that meets specifications.
	The side guides press against the paper too tightly.	Set the side guides so that they push against the paper lightly. **(p.20)**
	A trouble has occurred inside the machine.	Contact your dealer.
Paper jams frequently.	The rubber roll is dirty.	Clean it with alcohol. **(p.57)**
	Paper shreds are stuck inside the paper conveyance passage.	Check inside the machine and remove any paper shreds.
	Not aligned with the stacker roller position.	Adjust the stacker roller position. **(p.23)**
	The paper is curling.	Flatten and stretch out the curling. **(p.14)**
	The guide plate unit is left attached to the paper ejection plate.	Remove the guide plate unit. **(p.30)**
	Static electricity has occurred in the paper.	Spray a commercially-available air duster on the rubber roll.
	The paper lacking stiffness is processed at low speeds.	Boost the processing speed.
Paper slips in the vertical direction.	The folding position is not correct.	Correct the folding misalignment. **(p.47)**
Paper slips in the horizontal direction.	The paper is stacked unevenly.	Stack the paper neatly on the paper feed tray.
	There is space between the paper and side guide.	Set the side guides so that they push against the paper lightly. **(p.20)**
	The rubber roll is deformed.	Contact your dealer.

Condition	Cause	Solution
Single-folded thick paper is jammed in the rubber roller section.	The paper is outside the specifications.	Use paper that meets specifications.
	The space inside the internal paper conveyance passage is narrow.	DF-850 Widen the space using the fine adjustment knob of the folding plate 2.
		DF-870 Adjust the position of the stopper using the key.
Small paper is fed continuously (stream-fed).	The paper is outside the specifications.	Use paper that meets specifications.
	The paper feed pressure is strong.	Decrease the paper feed pressure.

Chapter 6 Appendix

1. Specifications

Design and specifications are subject to change without notice.

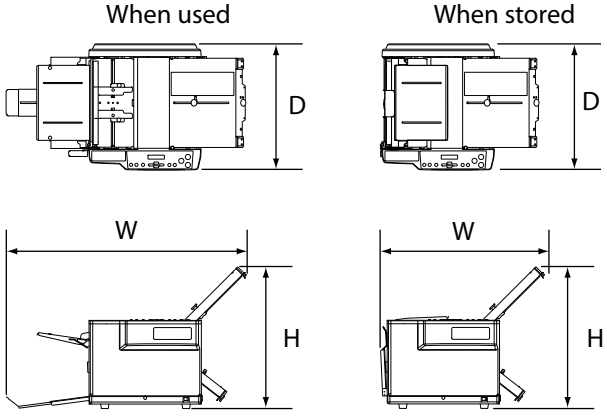
Basic specifications

Model			DF-850	DF-870
Item		Unit		
The number of paper-feed shelves			1	
Paper feed tray paper loading capacity		mm	46 (*1)	
		inch	1.8 (*1)	
Power supply	Voltage	V	100 - 240	
	Frequency	Hz	50/60	
Current consumption		A	1.3 - 0.65	
Power consumption		W	125	
Airborne noise	Conditions		With the machine placed on the table with the height of 0.6 m/23.62 inches, measured at a distance of 1 m/39.37 inches from the control panel and at a height of 1.55 m/61.03 inches from the floor. Noise test EN13023 J.3.1.1 – Grade 3 Paper quality: Fine quality paper 81.4 g/m^2/21.6 lb (Vertical) Paper size: A4 Processing speed: 3 speed+ Processing form: Double fold	
	Equivalent continuous A-weighted sound pressure level (L_{Aeq}) (*3)	dB	76	75
	Sound pressure level at peak (L^{PC})		99	94
Dimensions (W x D x H)	When used	mm	900 x 480 x 535	
		inch	35.44 x 18.90 x 21.07	
	When stored	mm	620 x 480 x 535	
		inch	24.41 x 18.90 x 21.07	
Mass		kg	31.5 (*2)	34.0 (*2)
		lb.	69.5 (*2)	75.0 (*2)

(*1) Fine quality paper 64 g/m^2/17.1 lb
(Equivalent to 500 sheets)
Cross folding shall be 25 mm/0.98 inch or less

(*2) Including accessories

(*3) * L_{Aeq} is the value added consideration of the variation with time to the A-weighted sound pressure level L_{pA}.



Media

Model			DF-850	DF-870
Item		Unit		
Paper size (W x L)	Maximum	mm	297.0 x 432.0	
		inch	11.69 x 17.00	
	Minimum	mm	91.0 x 128.0 (*)	
		inch	3.59 x 5.04 (*)	
	Standard paper	EU	A3/B4/A4/B5/A5/B6	
		NA	LGR (double letter)/LGL (legal)/ LTR (letter)/ STMT (statement)/INV (invoice)	
Paper type			Sheet Single fold	
Paper quality (thickness)			Fine quality paper (52.3 to 157 g/m^2/14.0 to 41.0 lb) Rough paper, medium quality paper, stencil paper, specific art paper and specific coated paper.	

(*) For paper that is less than 182 mm/7.16 inches (length direction), the following conditions apply.
Processing form: Single fold
Paper: Fine quality paper 64.0 to 81.4 g/m^2/17.1 to 21.6 lb
Paper jogging at the paper exit stacker section shall not be considered.

Performance and functions

Model		DF-850	DF-870
Item	Unit		
Processing speed (Maximum)	sets/ min.	241 (*2)	
Folding form (*1)		Single folding Double folding Irregular accordion folding Letter folding Accordion folding Gate folding (*3) (*4) Specified cross folding (*5) Other deformed folding (*6)	
Folding speed adjustment (*2)	Sheets/ min.	1 speed: 60 1 speed+: 75 2 speed: 120 2 speed+: 150 3 speed: 180 3 speed+: 241	

(*1) There are limits to the folding form depending on paper quality and paper size

(*2) Paper: Fine quality paper (long paper) of 81.4 g/m^2/21.6 lb
Paper size: A4
Processing form: Single fold

(*3) 52.3 g/m^2/14.0 lb or less Y grain (horizontal grain) paper cannot be used

(*4) Rough paper Y grain (horizontal grain) is outside specifications

(*5) Fine quality paper 52.3 to 104.7 g/m^2/14.0 to 27.9 lb

(*6) Maximum finish length is 216 mm/8.50 inches or less

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