DFS Auto-Feeder

Installation & Operation Manual

Revision: 04/08/2021

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Revision History

Date	Remarks	Reason
01/06/20	First Version	
04/07/21	Second Version	Update the connection method with DFS machine

Table of Content

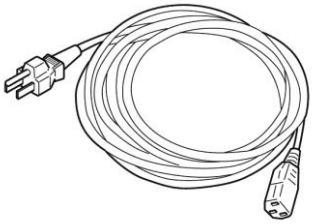
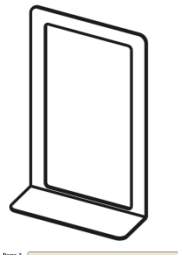
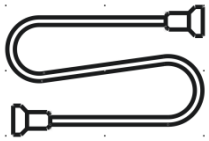
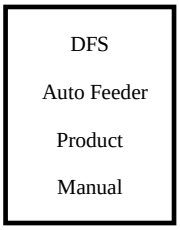
1. Introduction

GCC DFS offers a total solution with auto sheet feeding system that provides labor free operation with high speed laser die cutting. Each set comes with the media tray which collects completed cutting sheets.

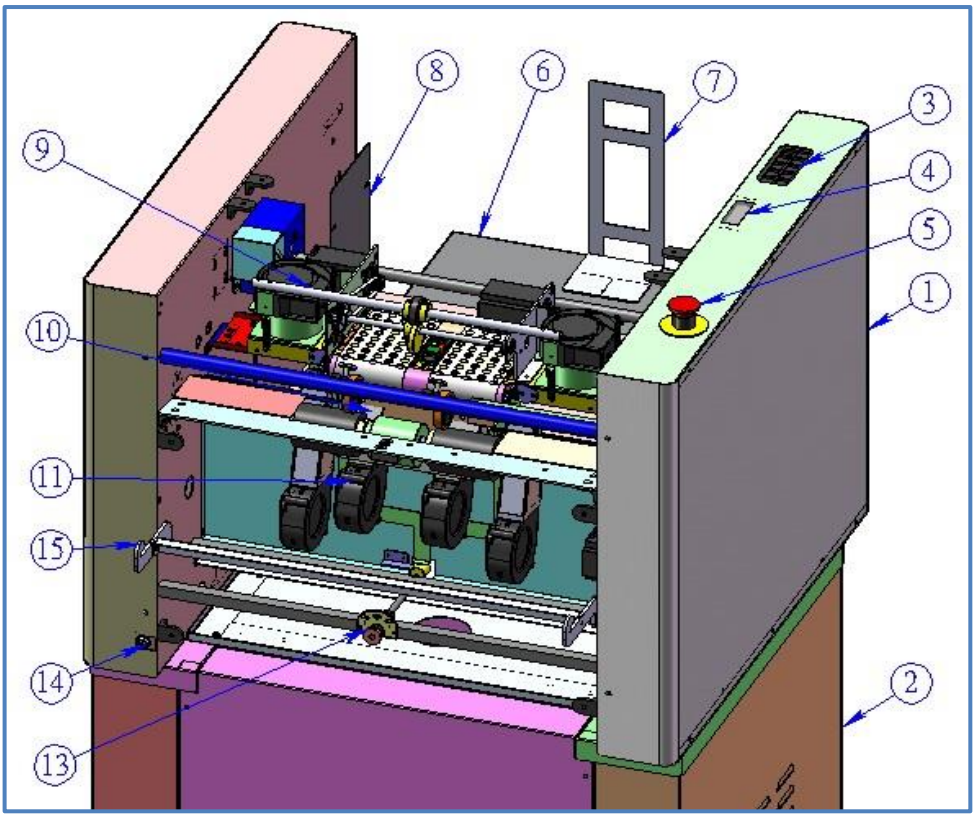
2. Specification

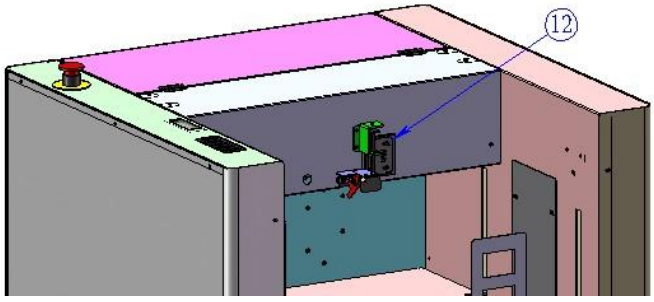
Max. Speed	**34M(111ft) / min**
Max. Paper Width	**13.9”X19.7”(353mmX500mm)**
Paper Weight	**120gsm~500gsm**
Min. Paper Size	**8 1/2” (216mm)**
Power Requirement	**220V, 50/60HZ, 4.6A/2.3A, Fuse Rating 6A Time Delay**
Dimension	**32.4” x 30.8” x 47.1” (823 x 782 x 1196mm)**
Weight	**305 lbs (120Kgs)**

3. Accessories List

	
Power Cord x1	Back Stop x1
	
Interface Cable x1	Product Manual x1

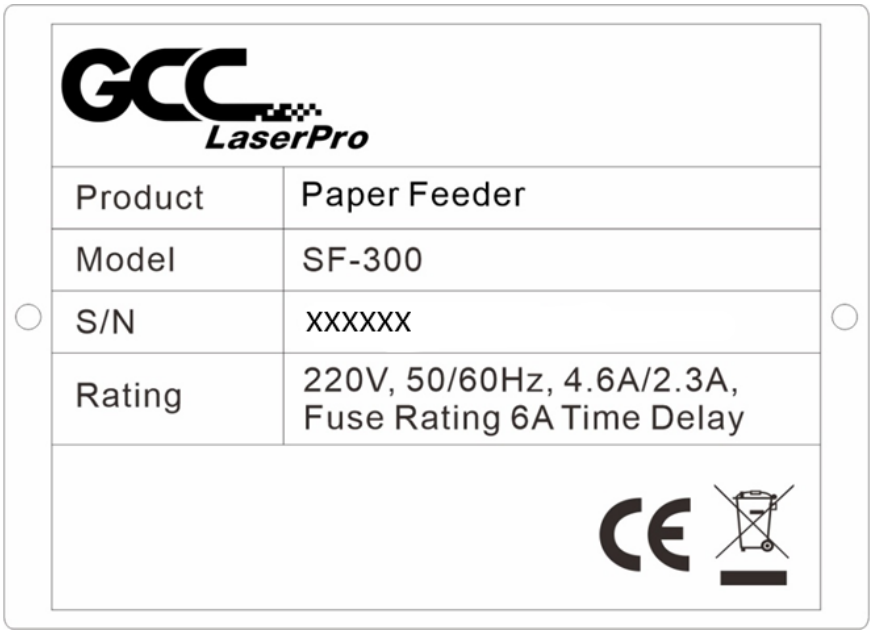
4.Key Components





Item	Key Components
1	Case
2	Stand
3	Conrol Panel
4	LED Display
5	Emergency Stop
6	Feed Tray
7	Feed Stopper
8	Side Guide
9	Suction Fan
10	Pinch Roller Asm
11	Blower Fan
12	Level Sensor
13	Separator Index
14	8-pin Interface Connector

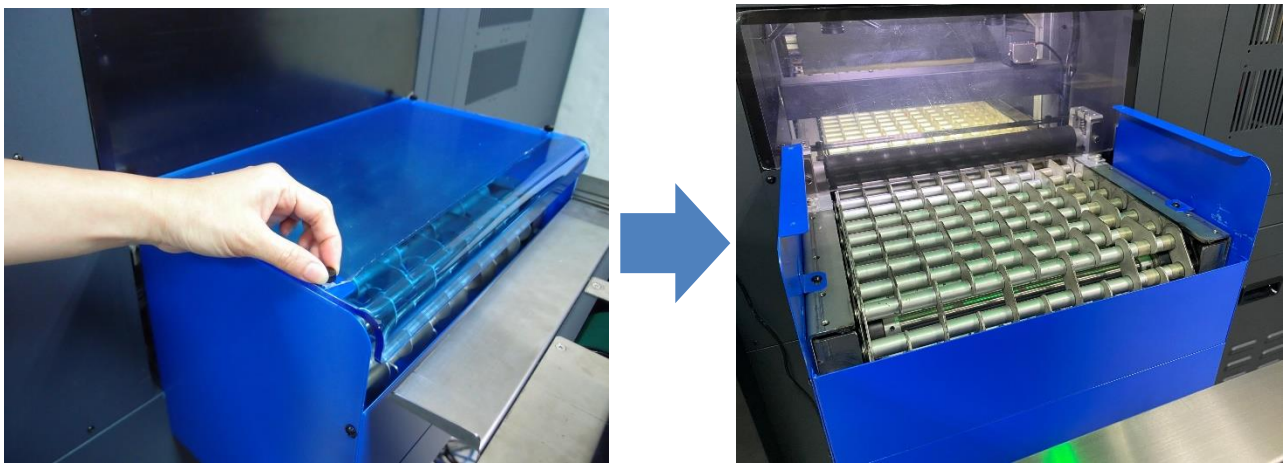
5. Name Plate


GCC
LaserPro
Product
Paper Feeder
Model
SF-300
S/N
XXXXXX
Rating
220V, 50/60Hz, 4.6A/2.3A,
Fuse Rating 6A Time Delay
CE

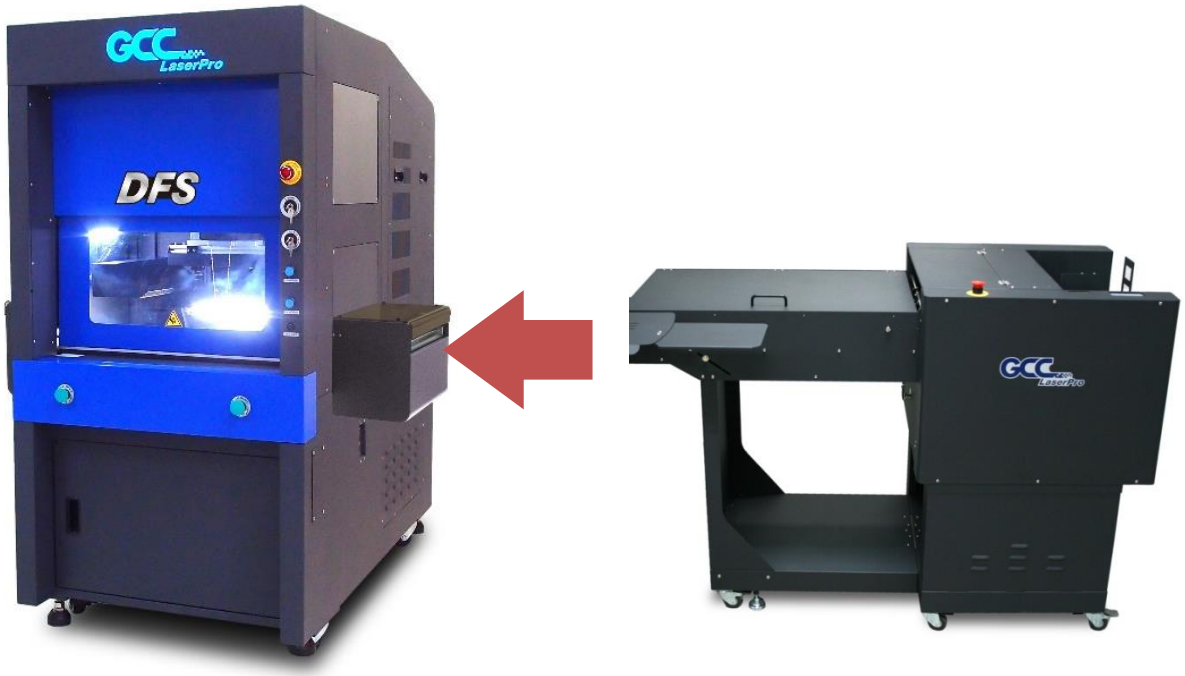
6. Installation Procedure

6.1 Intallation of Auto Sheet Feeder for DFS

a. Remove the right side PC window from the conveyor.

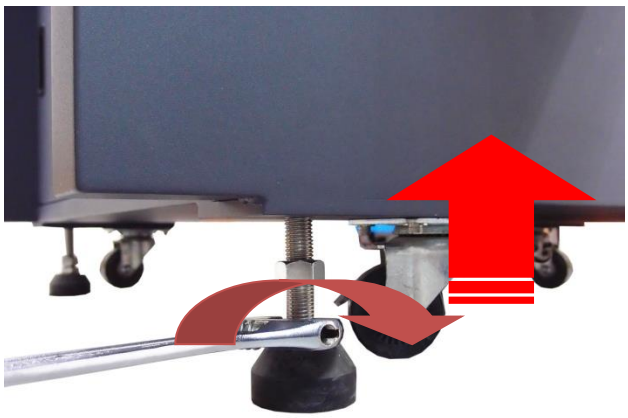


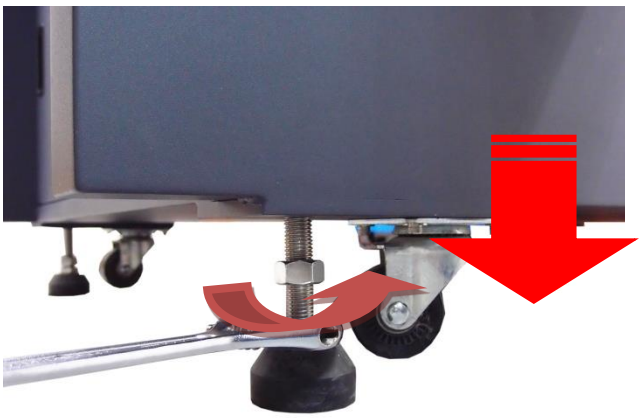
b. Push the auto sheet feeder to insert with the DFS machine.



c. Adjust the height of the DFS to make sure the level of DFS and auto feeder are the same.

* NOTE: Clockwise- Machine UP / Counterclockwise- Machine DOWN

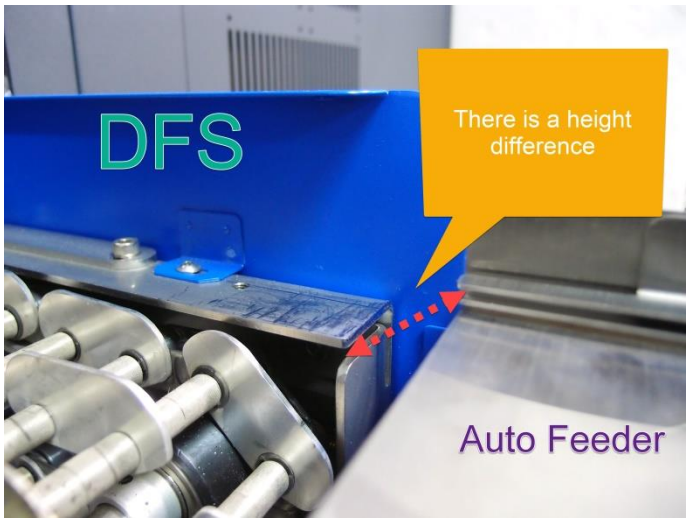




or

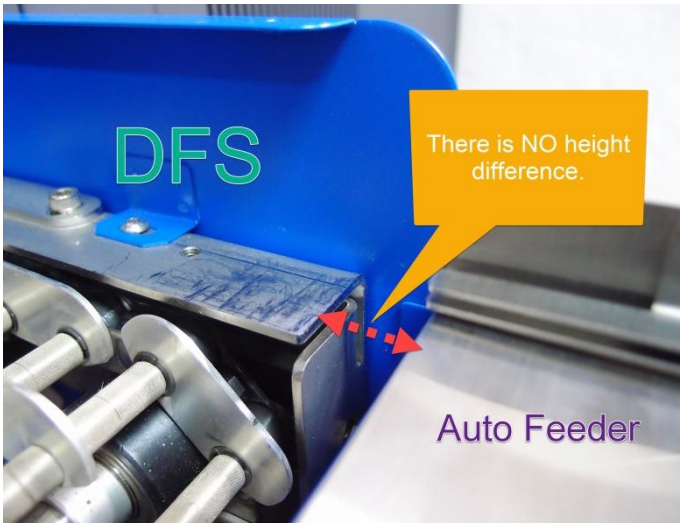
Before Adjustment

(there is a height difference)

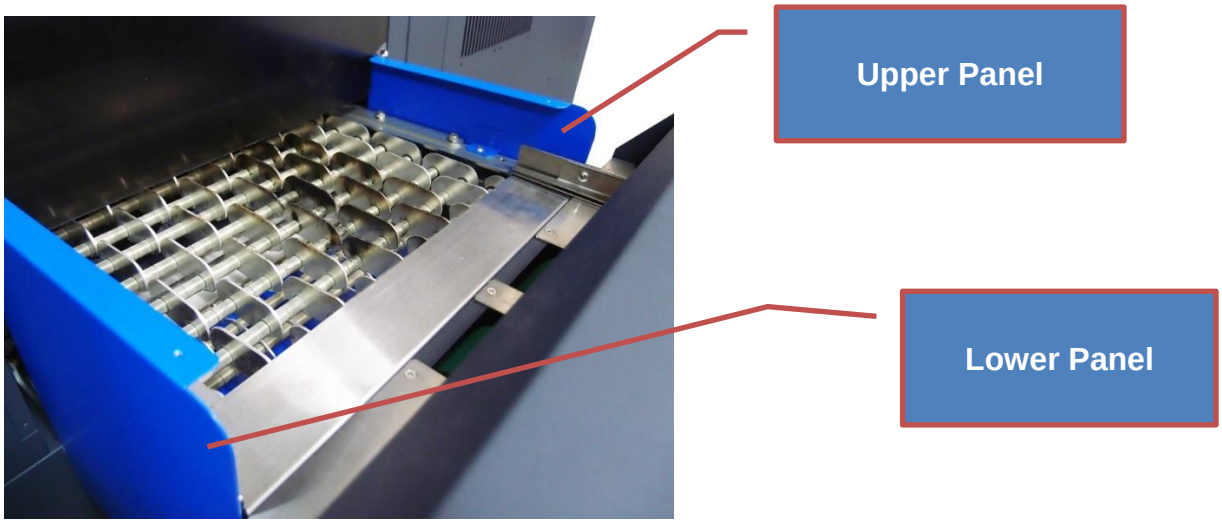


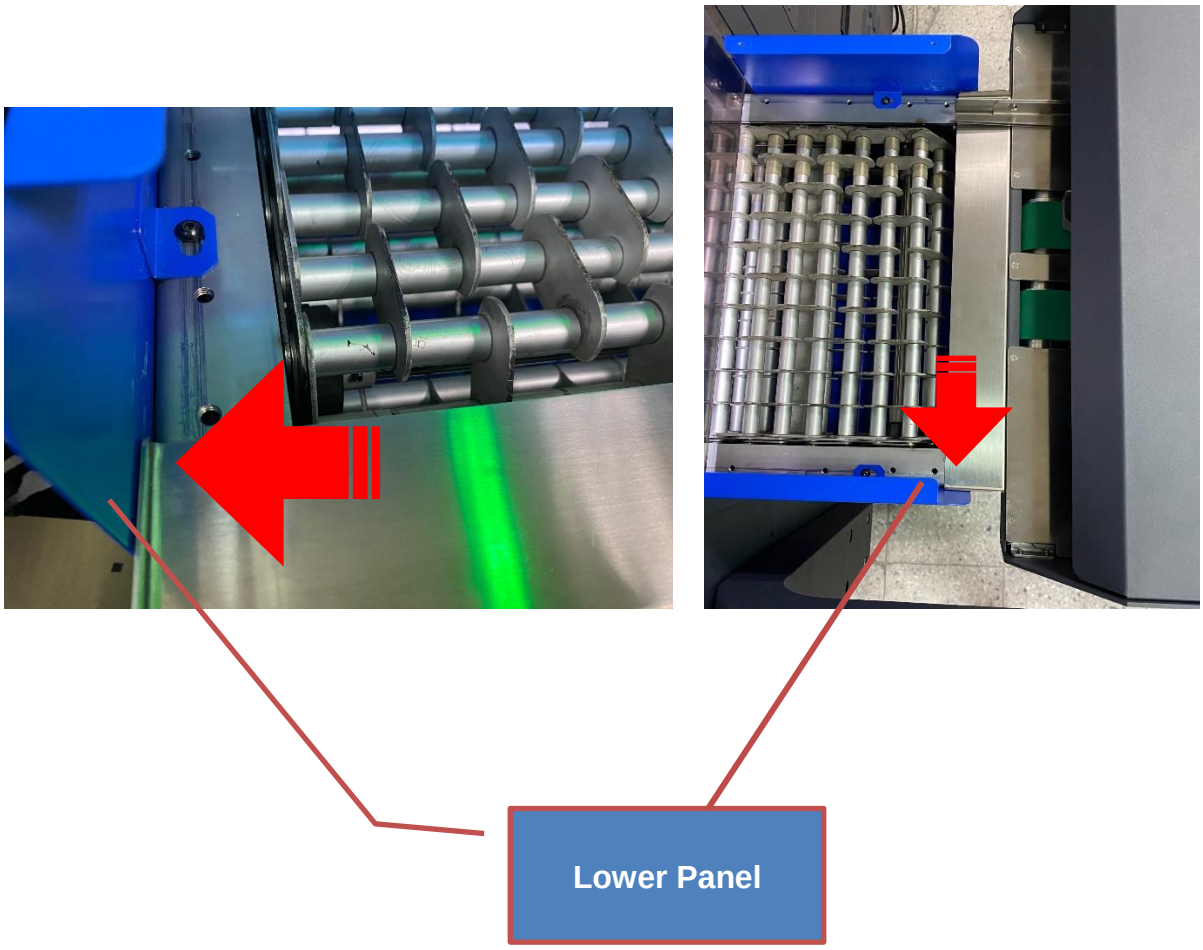
After Adjustment

(there is no height difference)



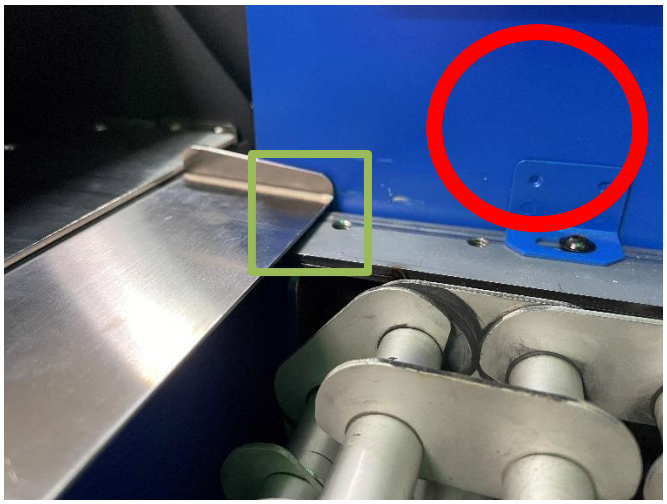
d. Align the autofeeder with the lower panel.

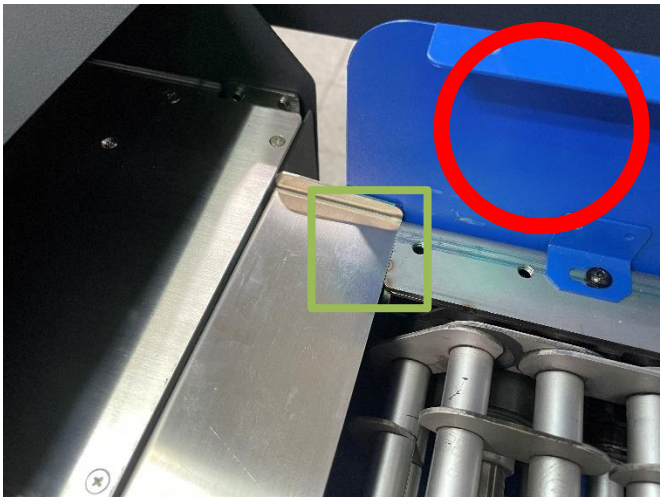




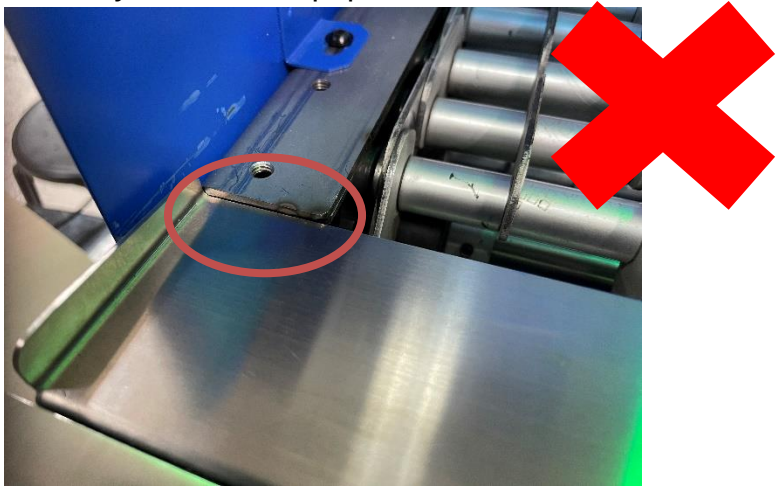
e. Make sure the connected part between the DFS machine and the auto feeder is in the correct position.

* NOTE: Please make sure the connected part is a little higher than the DFS. (auto-feeder connected part need to be right above DFS conveyor)





This way is incorrect, paper will be stuck.



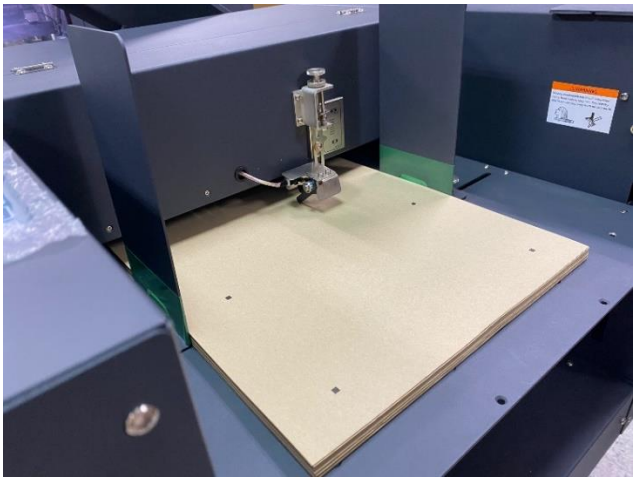
f. Put down the stopper to fix the auto feeder.

g. Connnect the Signal Cable.

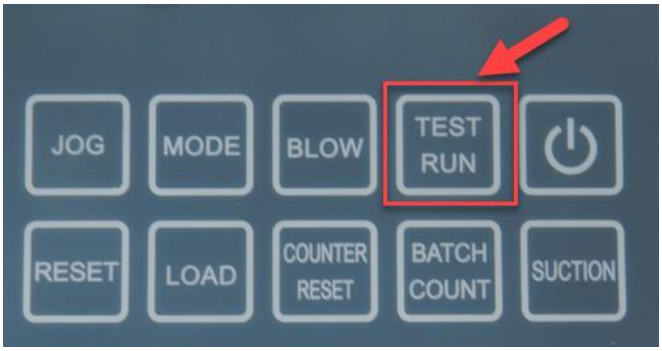
h. Connect the Power Cable.

i. Open the top lid of Auto-Feeder and prepare to do calibation.

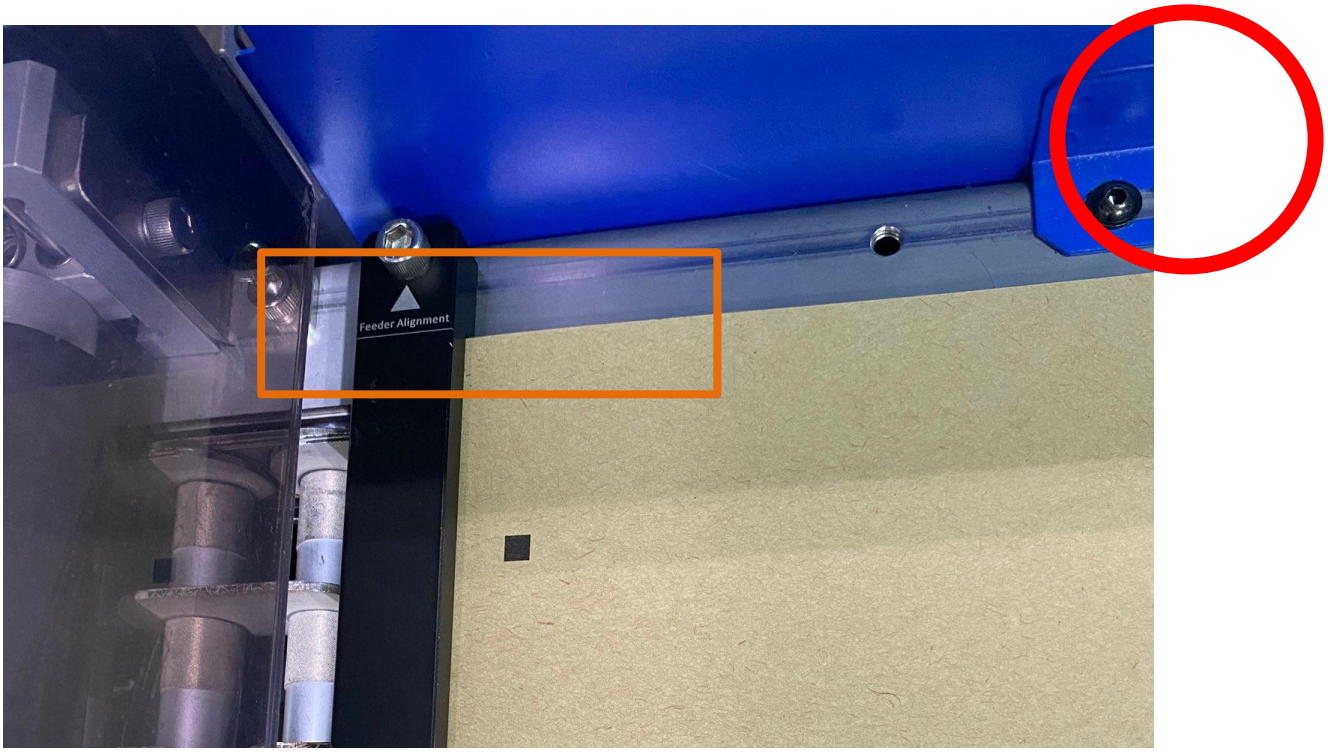
k. Load testing paper.

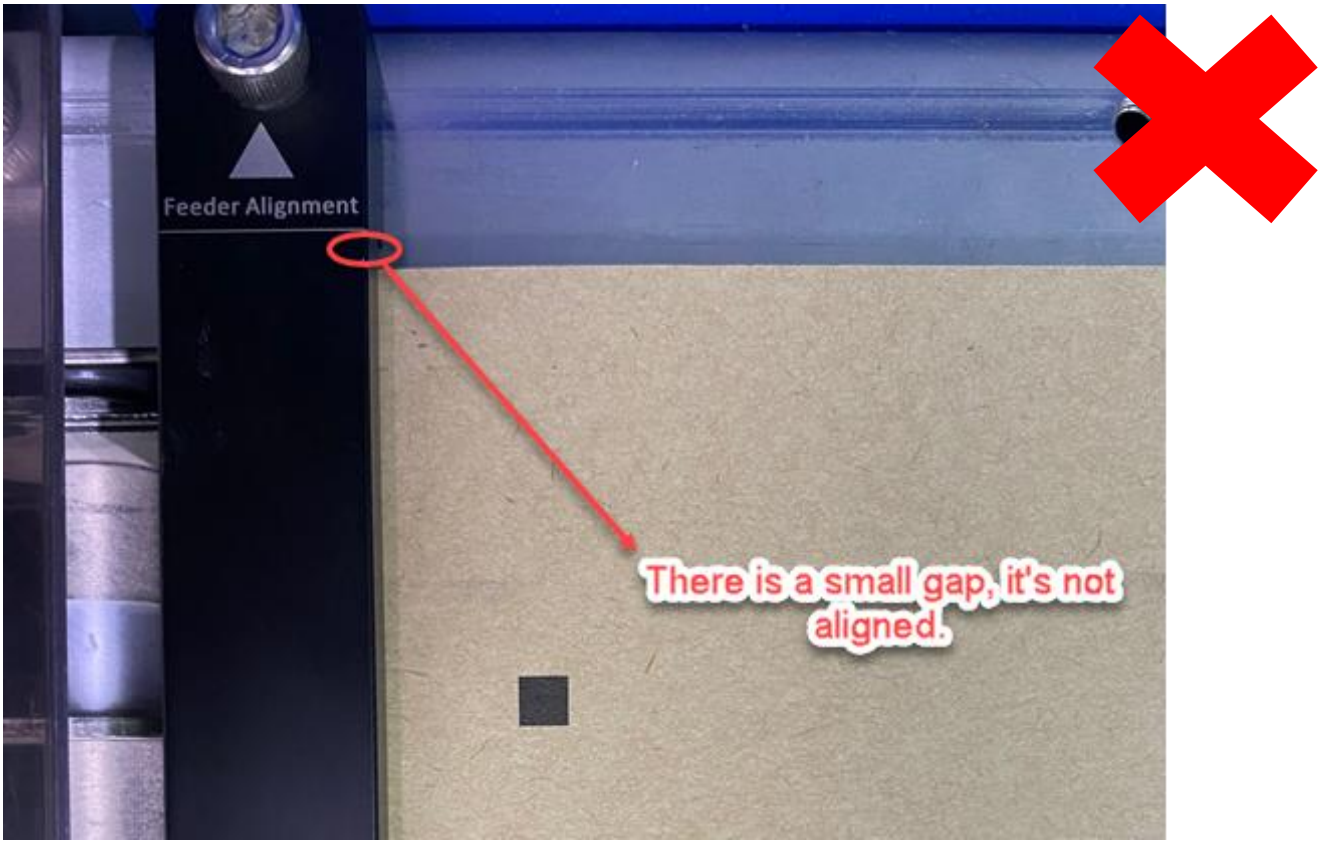


m. Turn on the feeder and press “Test Run” to deliver the testing paper.

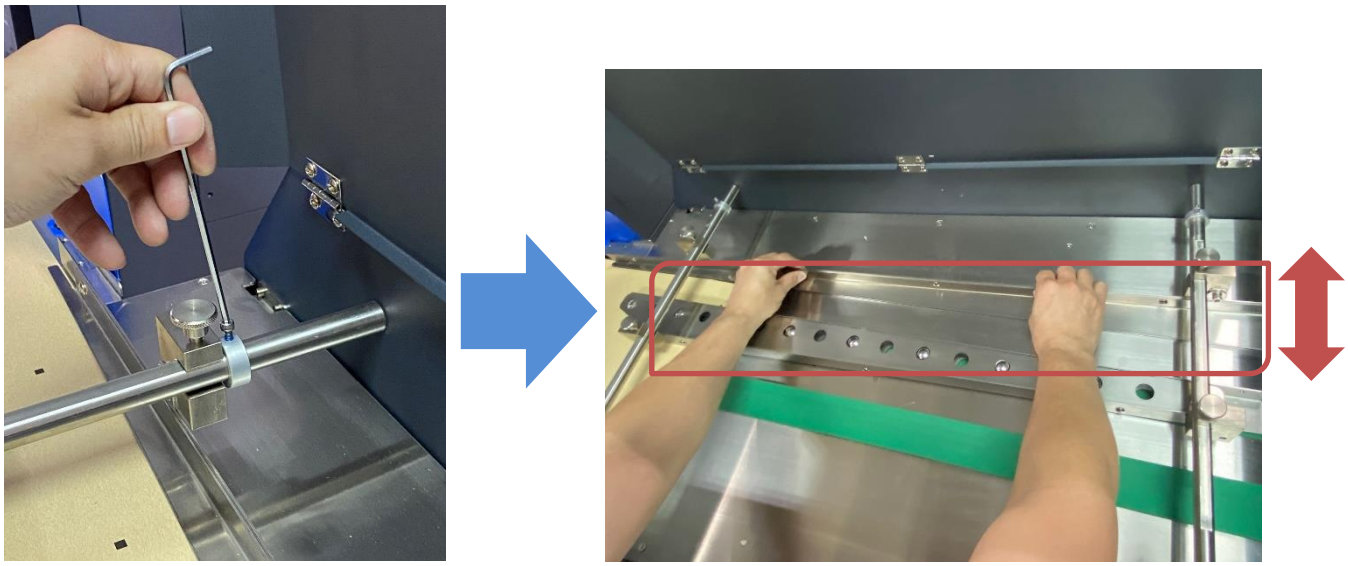


n. Make sure the top edge of paper is aligned with the alignment ruler.



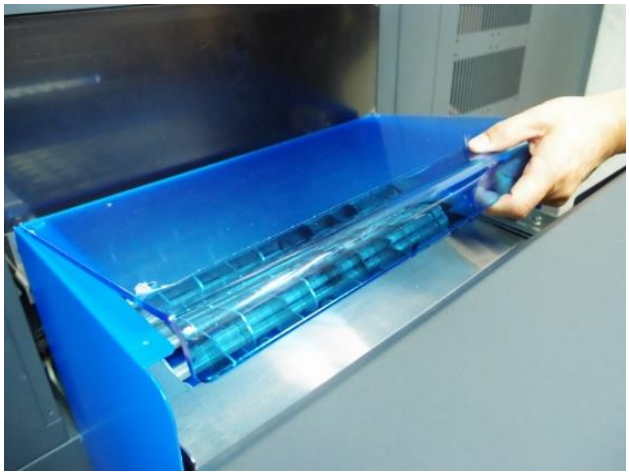


* NOTE: You can adjust the paper alignment by losing screw of the knob. Please kindly make sure that both horizontal and vertical orientaion need to be aligned well.



o. After alignment, remove the testing paper & alignment ruler, also pull back the top lid of auto feeder.

f. Put the bule PC window back

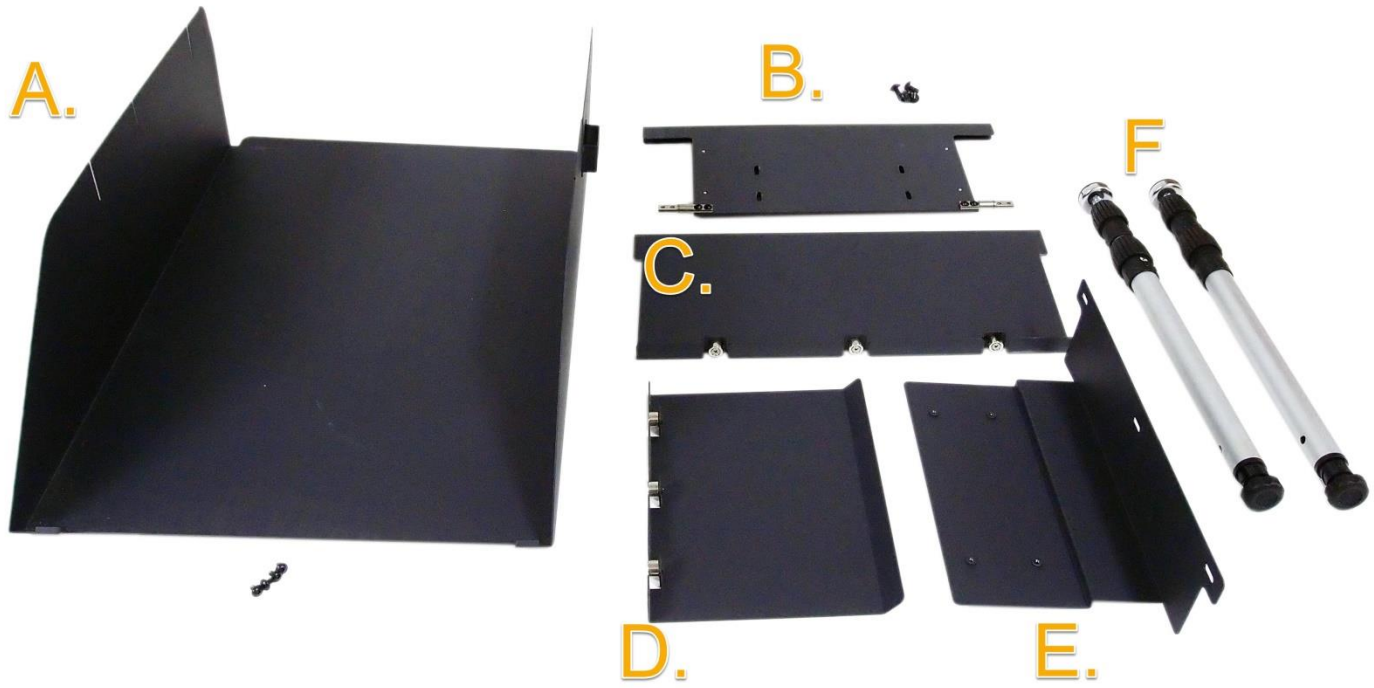


g. DFS Auto Sheet Feeder installation is completed.

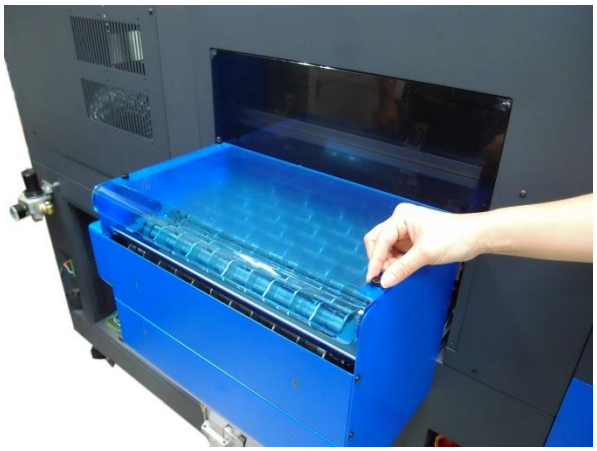
6.2 Intallation of Media Collection Tray for DFS

- Accessory Kit

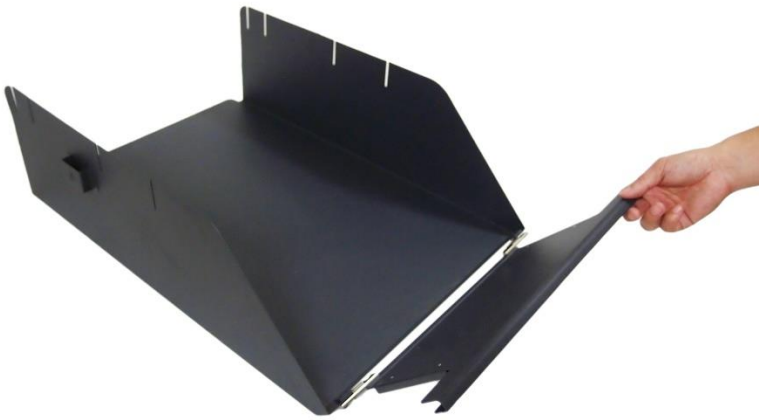
A. Main Panel with the screw set X1set
B. Supporting Panel with the screw set X1set
C. Stopper Panel X1pc
D. Alignment Panel X1pc
E. Connecting Panel X1pc
F. Stand X2pcs

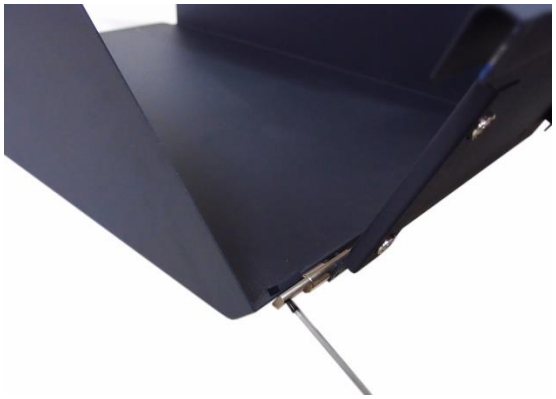


a. Remove the left sided PC window from the conveyor

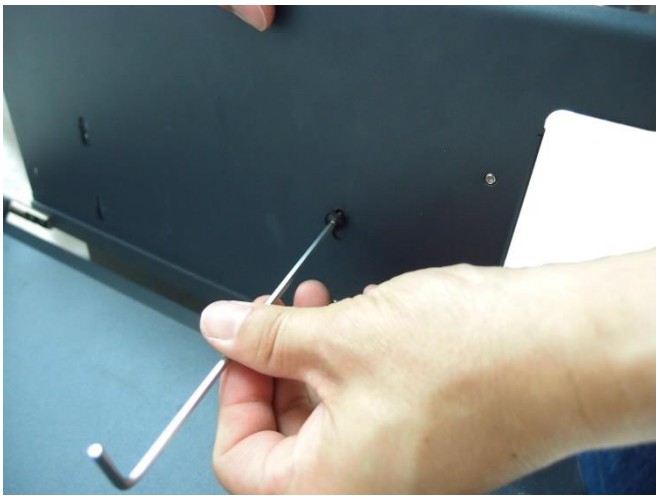


b. Assemble the Main Panel (A) with the Connecting Panel (E).

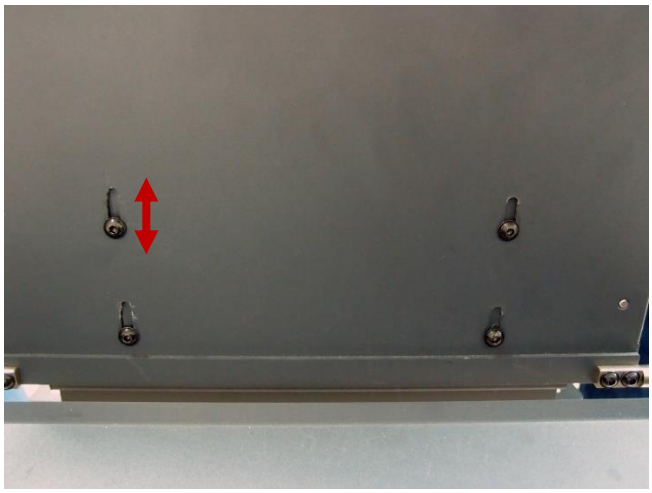


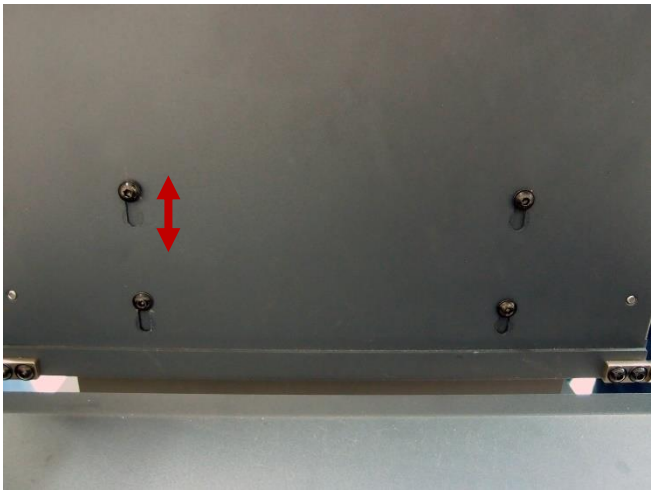


c. Assemble the Connecting Panel (E) with the Supporting Panel (B).



* NOTE: Please don't tighten up the screws at this stage, later we will need to fix the height by these screws with DFS machine.



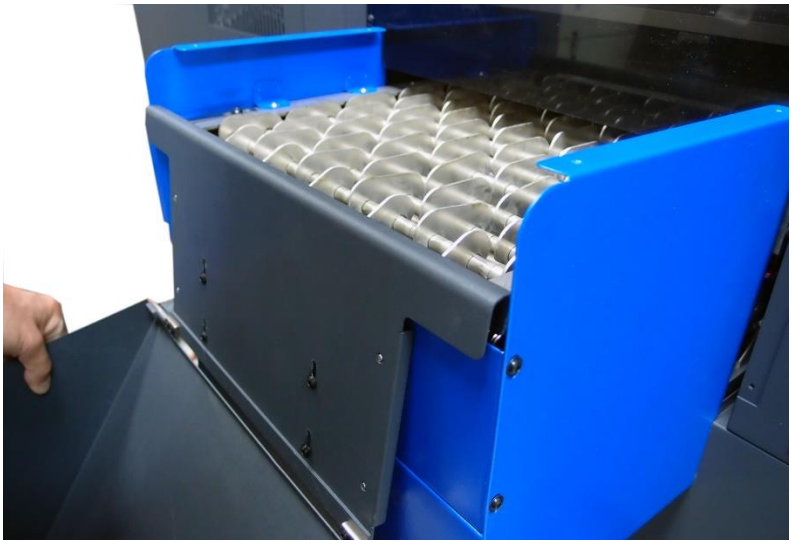


e. Assemble the stands of the Media Collection Tray

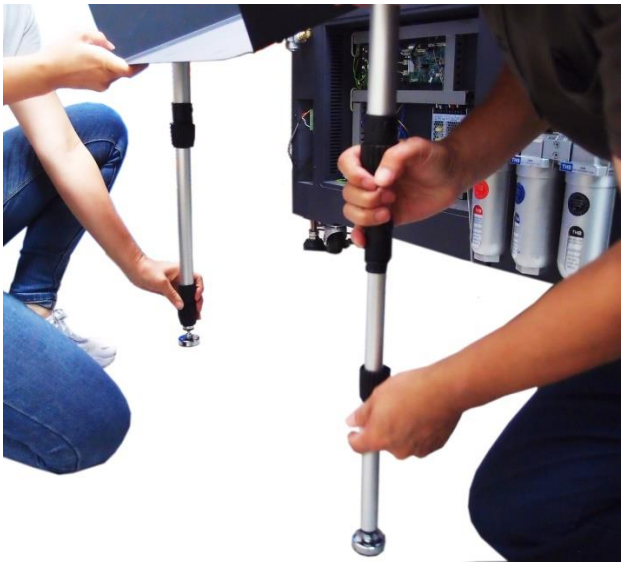
d. Assemble the stands on the Media Collection Tray.

e. Loosen the screws from the bottom side of the DFS conveyor.

f. Connect the Media Collection Tray with the conveyor of DFS as the below picture



g. Put down the stands.



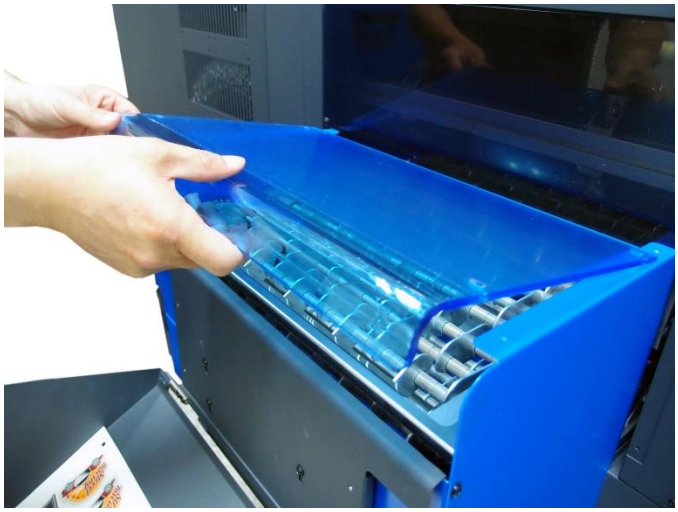
h. Fix the Supporting Panel (B) and tight up with the screws which are from the bottom side of the DFS conveyor.

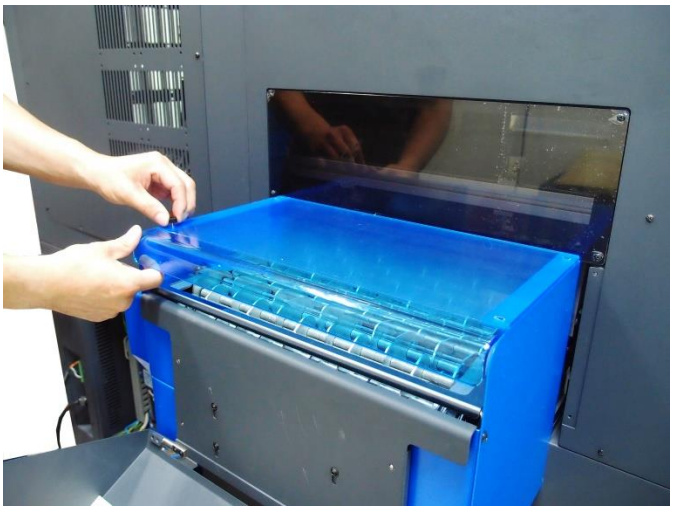
i. Adjust the position of the Connecting Panel (E) and fix with the screws


j. Place the Stopper Panel (C) as below picture


k. Place the Alignment Panel (D) as below picture

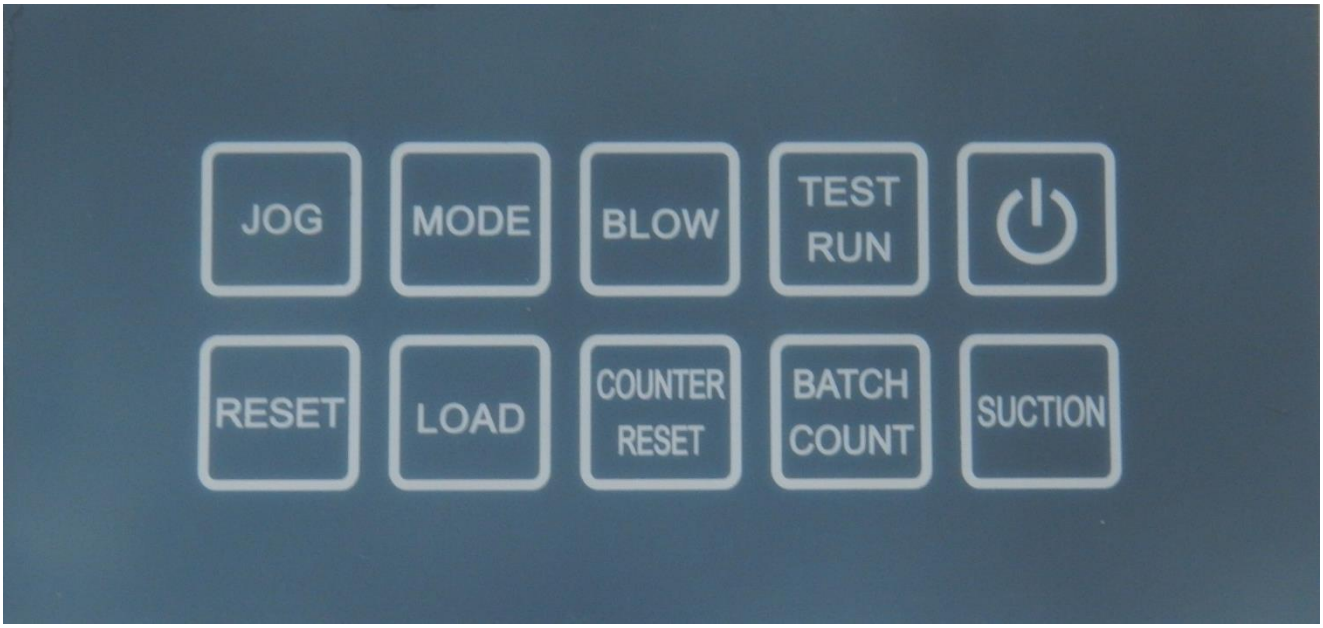

m. Put back the blue PC window.





n. Intallation of Media Collection Tray is completed.

7. Control Paneland Function Key

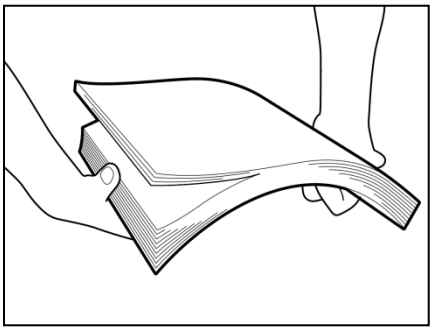


Function Keys	Function
JOG	Clear paper path and as composition key
RESET	Reset error message on the display,
LOAD	Tray down to reload the media
BLOW	Air flow volume selection SP-1 Low SP-2 SP-3 SP-4 High
TEST RUN	Run one piece of paper to keep paper length in memory for jam / burn timing control. Each time paper length change “Test Run” must be performed.
⏻	Start or Pause the feeder

BATCH COUNT	Turn batch count on/off “0000” =Turn the batch count off “0100”= Set batch count amount 100 “0200”= Set batch count amount 200 “0300”= Set batch count amount 300 “0400”= Set batch count amount 400 “0500”= Set batch count amount 500
MODE	Test level sensor height
COUNTER RESET	Reset counter
SUCTION	Air suction volume selection: SP-1 Low SP-2 SP-3 SP-4 High

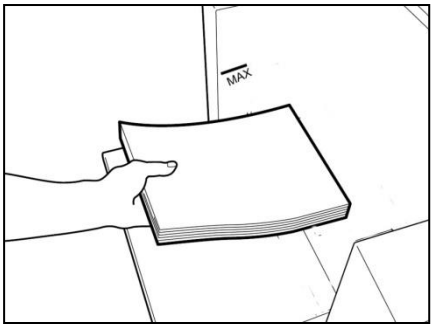
8. Loading Paper

8.1 Fan the paper and make in order to separate the sheets

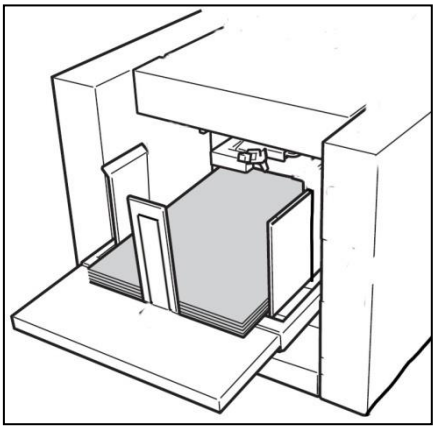


8.2 Load the Paper

Note: The height of the paper stack should not exceedthe "MAX" level.

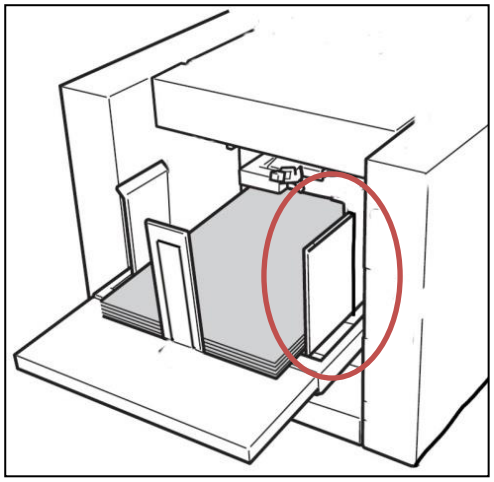


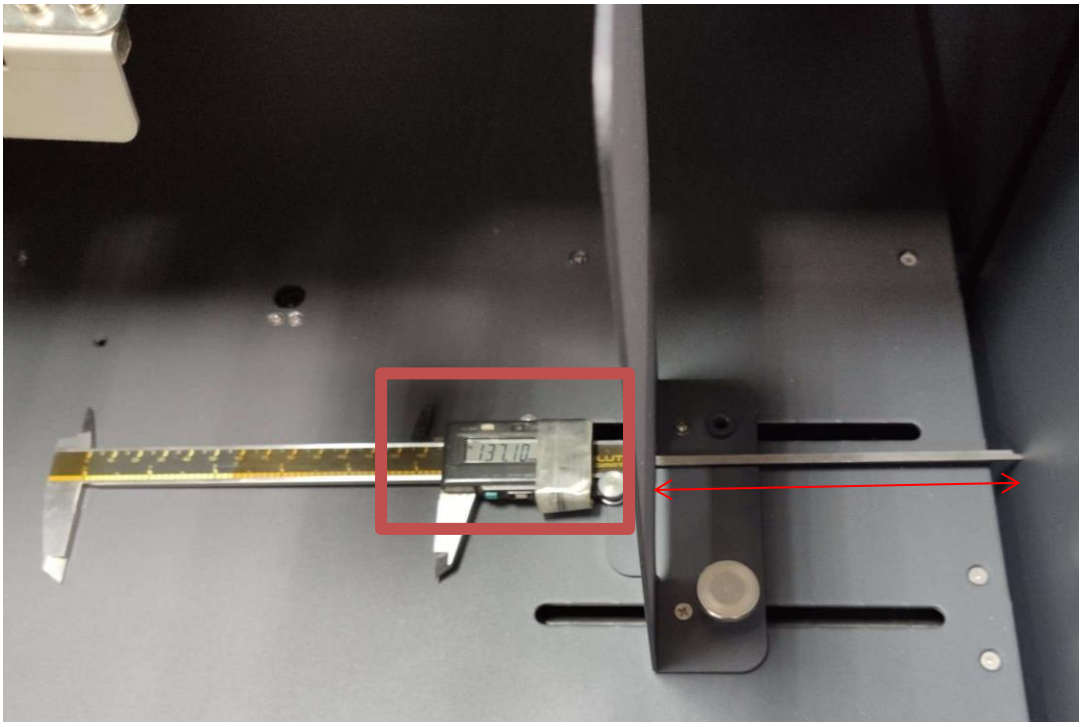
8.3 Setting the Guides



NOTE:

Please DO NOT adjust the paper width from the right side. Please keep the circel part at the same position. (Distance: 137mm)





9.Operation Procedure

9.1 Level Sensor Adjustment

Factory setting is scale 2 counted from bottom as shown above which is good for paper weight from 150gsm ~ 350gsm. It may need fine tuning according to paper quality variance.

The elevator level should be adjusted as the following cases

●The machine has inconsistent feed.

→Raised Level Sensor to higher; 1 is lowest and 8 is the highest

●The machine feeds multiple sheets at once.

→Set the level sensor lower.

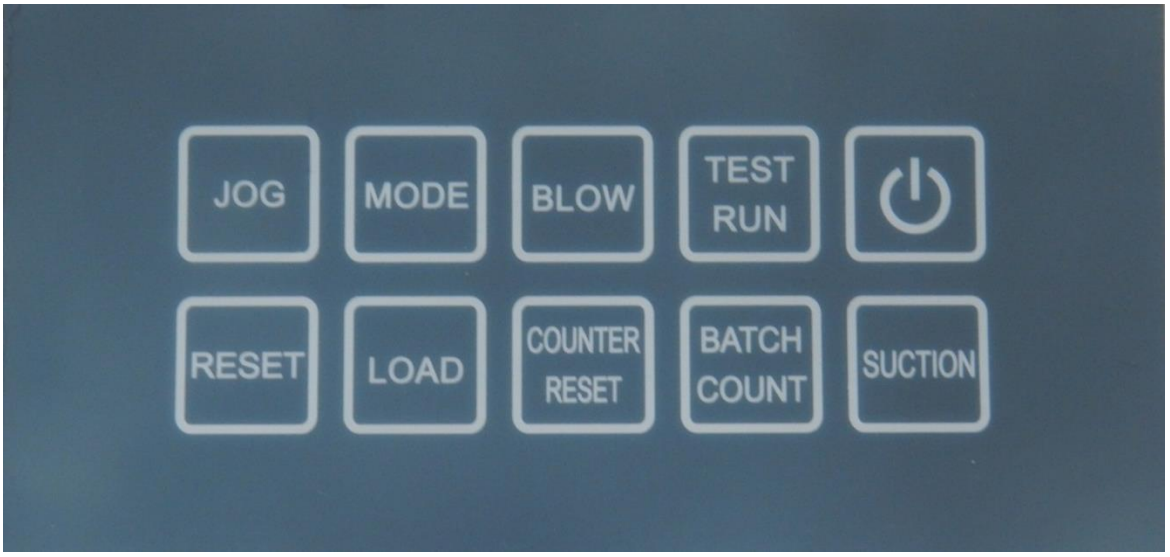
9.2 Separator

The height of the separator should be adjusted as below:

●The machine does not feed or skew feed.

→Rotates the knob clockwise to lower the separator down.

9.3 Adjusting the Airflow



There are 4 settings for amount of air separation. Hold BLOW then press JOG to change blower volume by selecting from “SP-1” for low to “SP-4 for high. The amount of airflow should be adjusted in the following cases:

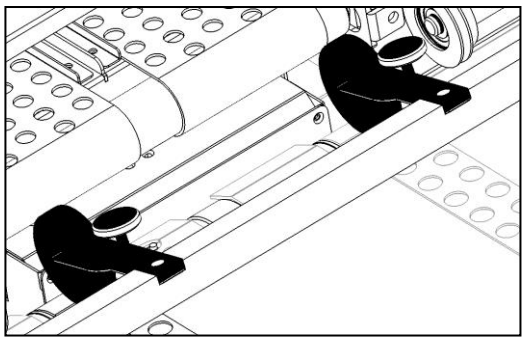
●The machine does not feed.

→Hold BLOW then press JOG to select larger setting to increase airflow.

●The machine feeds multiple sheets at once.

→Hold BLOW then press JOG toselect a smaller setting to decrease airflow.

9.4 Pick-Up Roller Pressure Adjustment



●Paper slip at pick up roller

→Increase the pressure by turning thumbscrew clockwise.

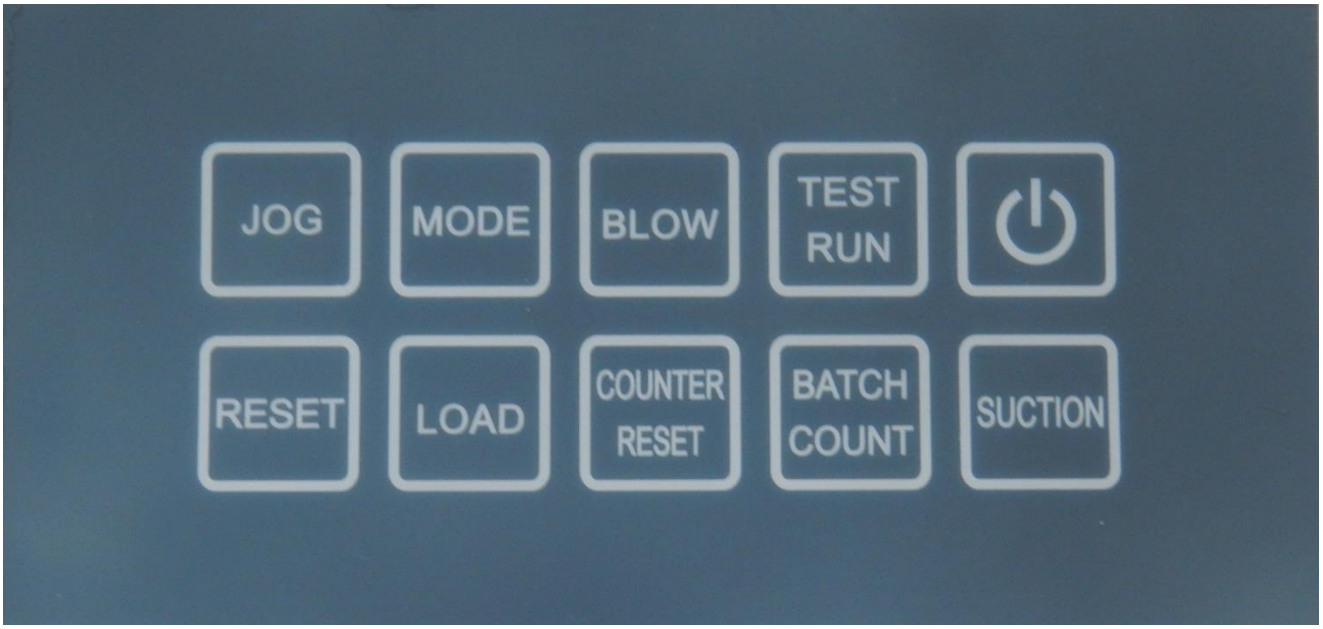
●Paper creased by roller.

→Decrease the roller pressure by turning thumbscrew counter clockwise.

●Paper skew entering into coater

→Apply even pressure to both wheels by turning thumbscrews clockwise. A piece of paper can be inserted under each wheel to check for even pressures.

9.5 Suction Air Adjustment

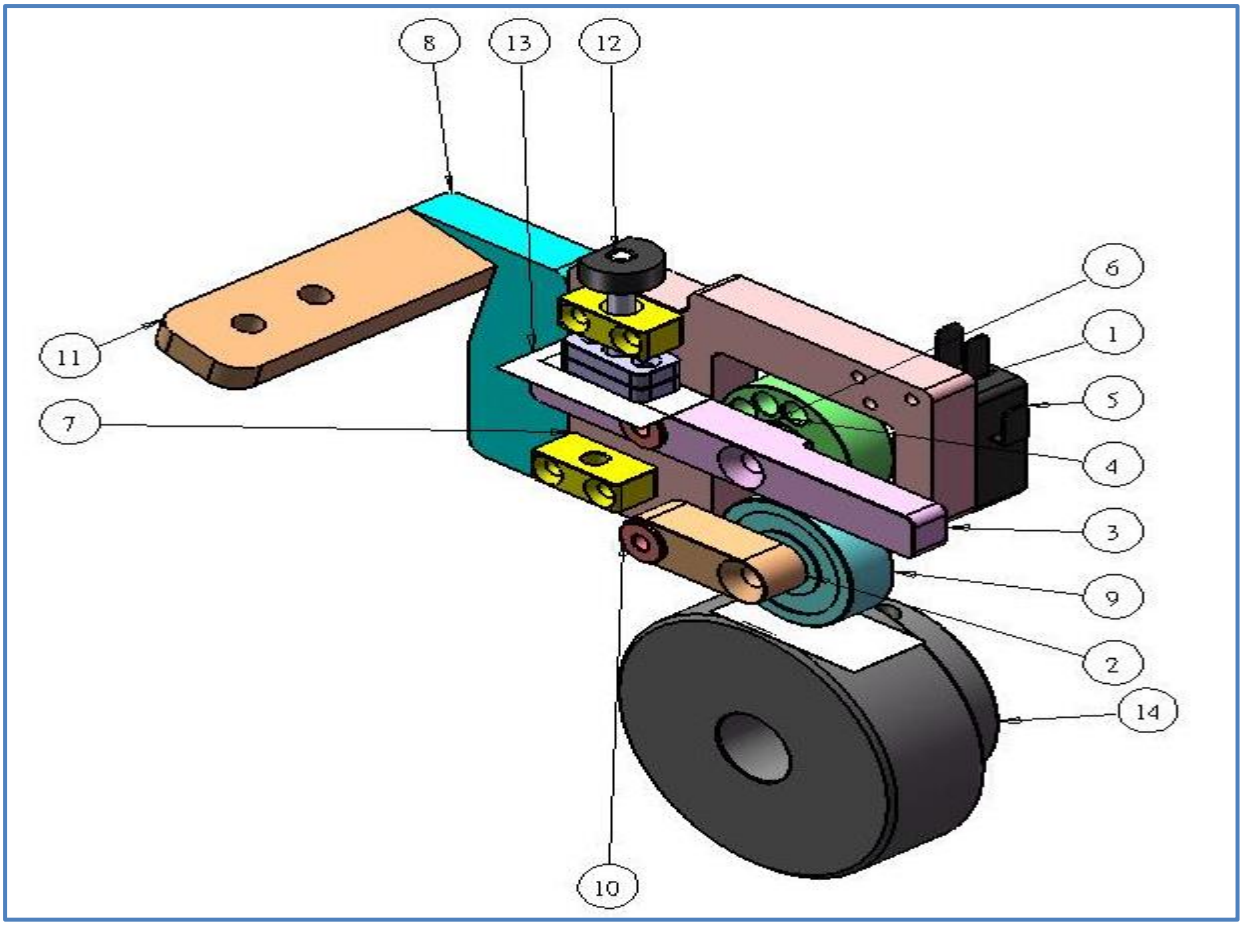


When performing Duplex coating, the coated image facing down is very slippery, reduce the suction air as required to help the pick-up roller to feed the coated stock from the feed hopper. There are 4 setting for the suction air, SP-1 is the lowest, and SP-4 is the highest.Hold 

then press 

to perform the selection.

9.6 Double Detection Adjustment



10.7.1 Power OFFthe Feeder

10.7.2 Open the top cover

10.7.3Lift item 3 and Insert a piece of sheetwhich is going to be fed.

9.7 Reset Counter

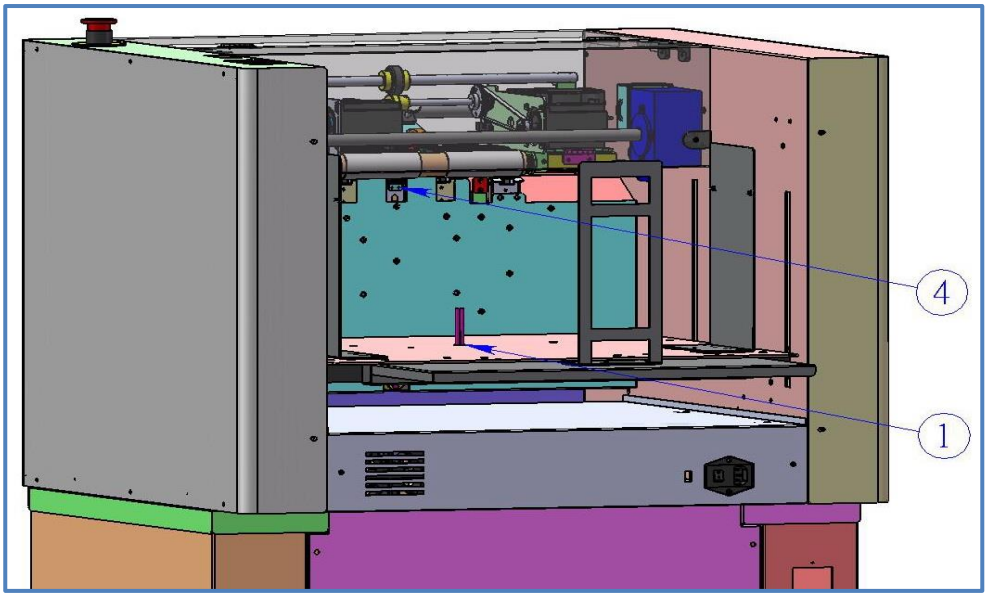
Hold 

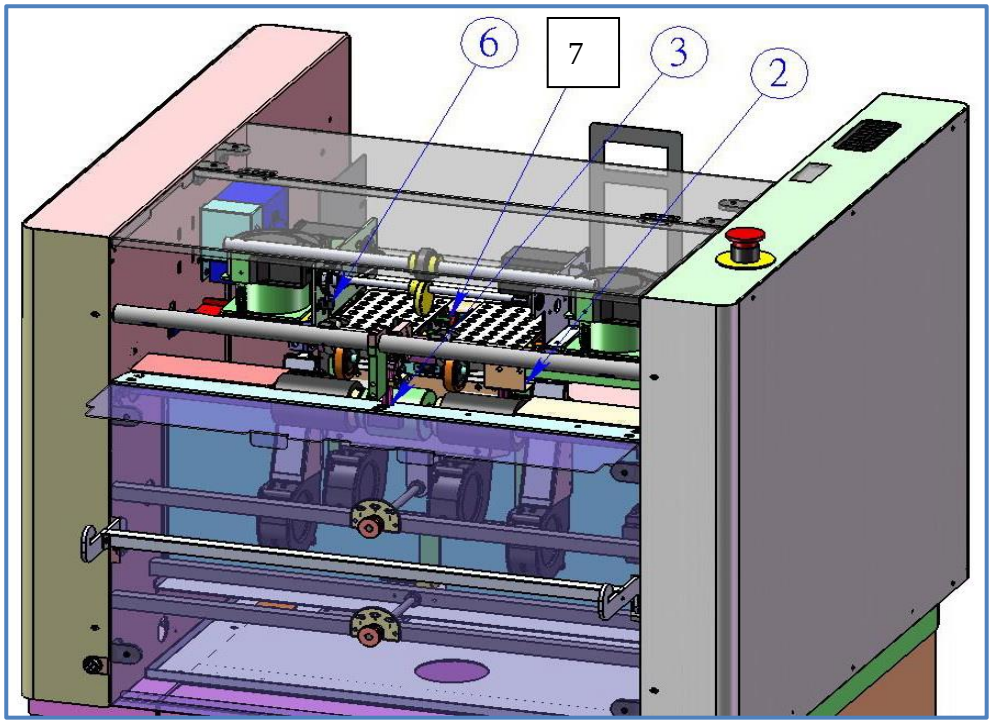
then press on 

to reset the counter on display.

10. Sensor Location

Sensor No	Description	Function
S1	Feed Tray Sensor	Detect feed hopper has paper or not
S2	Feeding Sensor	Make sure feeding is success
S3	Exit Sensor	Sense paper is conveyance to DFS Machine
S4	Level Sensor	Detect feed tray height
S6	Suction Fan On/Off	Accurate feeding control
S7	Sure Feed Sensor	Make sure paper is sucked 100% by suction head





11. Trouble Shooting Guide

Error Message	Symptom and Possible Cause	Action
E001	Press “Start” no feed	Load paper into the hopper
E002	1 Paper does not reach to S2 2 Undesired paper under S2 when power on the feeder	1.1 Correct skew, readjust side guide 1.2 Check media not flat or curled 1.3 Sensor #2 dirty 1.4 Adjust the Level Sensor height 2. Remove the paper
E003	1 Paper does not reach S3. 2 Sensor 3 detect infraRed	1.1 Readjust side guide 1.2 Check media quality 1.3 Clean Sensor 3 if needed 1.4 Adjust the Level Sensor height 2 Clear paper out 3 Block the Infra Red source
E004	Feed Tray keeps going down	Level Sensor failed
E005	S3 seeing paper too long	Remove jamed paper in Exit Sensor
E006	Suction Fan no On/Off function	Suction Fan On/Off Index Sensor failed
E007	Paper cannot reach to Sure Feed Sensor	1. Lever Sensor too low, adjust the senor height 2. Sure Feed Sensor failed
E008	Sensor 8 keeps seeing Actuator	1. Sure Feed Sensor Trigger malfunction 2. Sure Feed Sensor failed
Ld Er	Cover not closed or in place	Close the cover
db Er	Double feed.	1. Adjust the level sensor lower 2. Raise separator
dA Er	Test Run is not complete	Press “Test Run” again
tP Er	Feed tray up to suction head then down without feeding	Sensor 4 Level Sensor failed
“- -“	Feed tray stop at upper limit	Feed tray empty and reach to top mrgin switch
“----“	Feed tray stop t the lowest limit	Feeder tray reaches top margin switch
Blinking “□□□□”	Press  doesn’t feed	1. Coater not ready 2. Inline interface has problem, check interface cable pin to pin in sync
Error can not reset	1. Exit sensor sensed the Infra Red 2. Paper path has paper	1.Try to cover the sensor to block the Infra Red 2. Remove the sheet in paper path
No Power	E-stop is ON	Reset E-stop