Newton mini

USER MANUAL

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Thank you for purchasing KISAN product, NEWTON mini.

- Read this operation manual thoroughly before using the product.

- Follow this operation manual to ensure the safe and proper use of the product and to prevent any physical/material damage.

- The contents of this manual could be changed without notice.

- The actual product may differ from the contents of this manual.

- Any part of our product shall not be reproduced for commercial purpose without our permission.

Contents

When inserting banknotes

Do not insert banknotes severely damaged, wet or mixed with alien substances.
Make sure that no other foreign substances enter the product including your hands and hair, when inserting and counting banknotes.
Straighten the folds or corners of banknotes before insertion.
Banknotes should be properly arranged and put on the hopper as shown below.

To use the product safely

DO NOT place the product near heat sources such as a stove or a heater.

DO NOT try to disassemble or repair the product by yourself.
Such attempts may cause accidents.

DO NOT place heavy objects or liquid containers, such as a beverage can, on the product.

DO NOT apply excessive force to the product.

DO NOT try to open or operate the product by force.
Make sure to apply proper grounding, using the plug.
Short-circuit may cause electric shock.
Make sure to shut its power off before putting your hands inside the product
for such purposes as replacing a fuse or checking the components.

DO NOT unplug the product holding its electric cord.
Such action may cause electric shock or fire.

To maximize the durability of the product

DO NOT expose the product to the direct rays of the sun for a long period.

DO NOT place the product in a dusty space make sure that the product stays free
of dusts or foreign substances , also do not place the product on an unstable
or shaky place.
Keep and use the product under the optimal conditions as follows
- Temperature : 10 ~ 35 ℃(For use) / - 10 ~ 45℃(For storage)
- Humidity : 20 ~ 90 % RH

DO NOT press the LCD screen or control keys with sharp objects such as a pen or a pin.
For the safekeeping of a long period, lay its cover over the product.

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Daily Checkup

Remember to shut off the power and unplug the product during the checkup.

DO NOT use chemicals when removing dust from the product.
      The use of chemicals may cause discoloration and deterioration.
      Under long-term use, such foreign substances as dust may stick to the
      sensor, causing errors.
      To prevent this, use a brush to remove any foreign substances from
      the sensor.
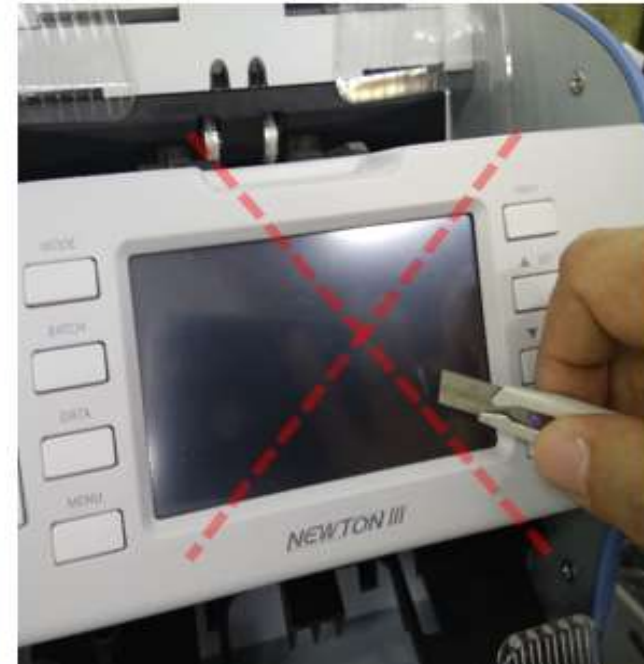
Front Part

Hopper is an area where the banknotes to be placed

Hopper guide moves from side to side and adjustable by the size of banknotes

Stacker is an area where banknotes are taken out upon the operational completion

USB host port is linked to the A-type USB

Dust pocket removes dusts collected during the operation

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Rear Part

Display port : COM2
is linked to the external
display

Printer Port : COM1
is linked to the printer

LAN/DEBUG port
is linked to Ethernet

Power connector
110-220V power inputted

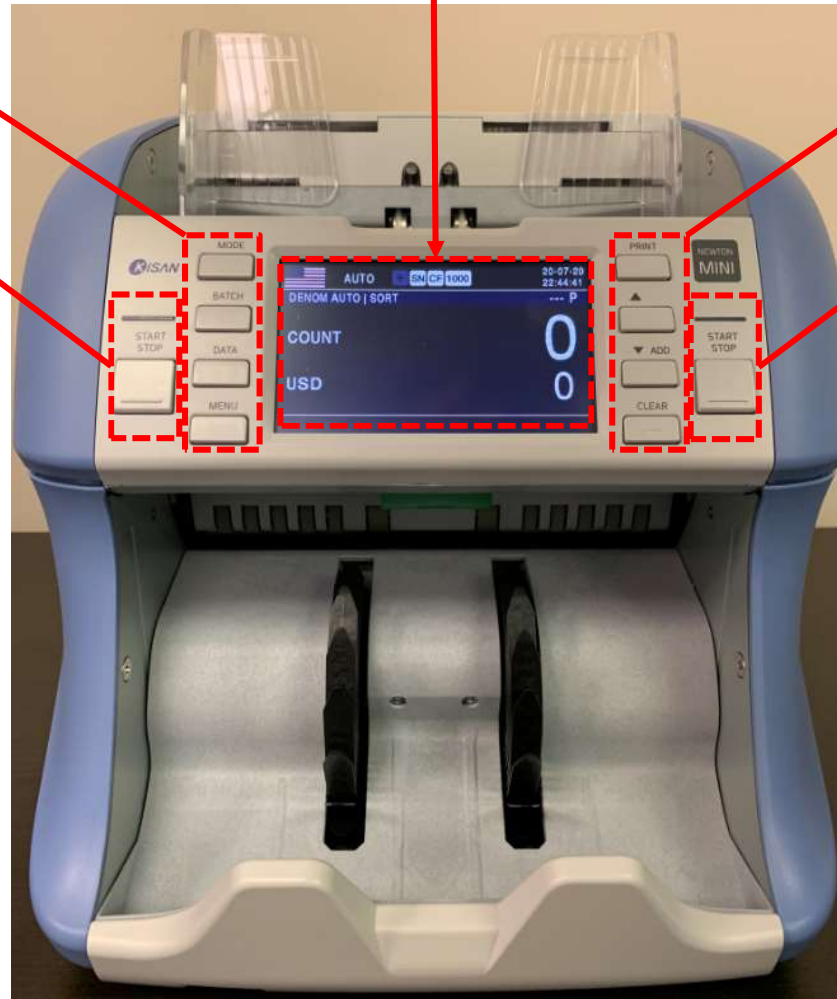Power switch
turns the power on/off

Control / Screen Display

LCD Screen

Operation Button

Operation Button

START/STOP Button

START/STOP Button

A Newton mini can be operated by two users with two different settings and parameters.

Specifications

Mode : Mix/Auto , Free Count , Face/Orient , Serial No , etc

Speed : 1000 notes/min - Value Counting , Serial Number Detecting
          1500 notes/min – Free Counting

Capacity : 500 notes – Hopper / 200 notes – Stacker

OS : Linux

Display : 4.3" TFT Color Touch Screen LCD

Port : USB, LAN, Serial port
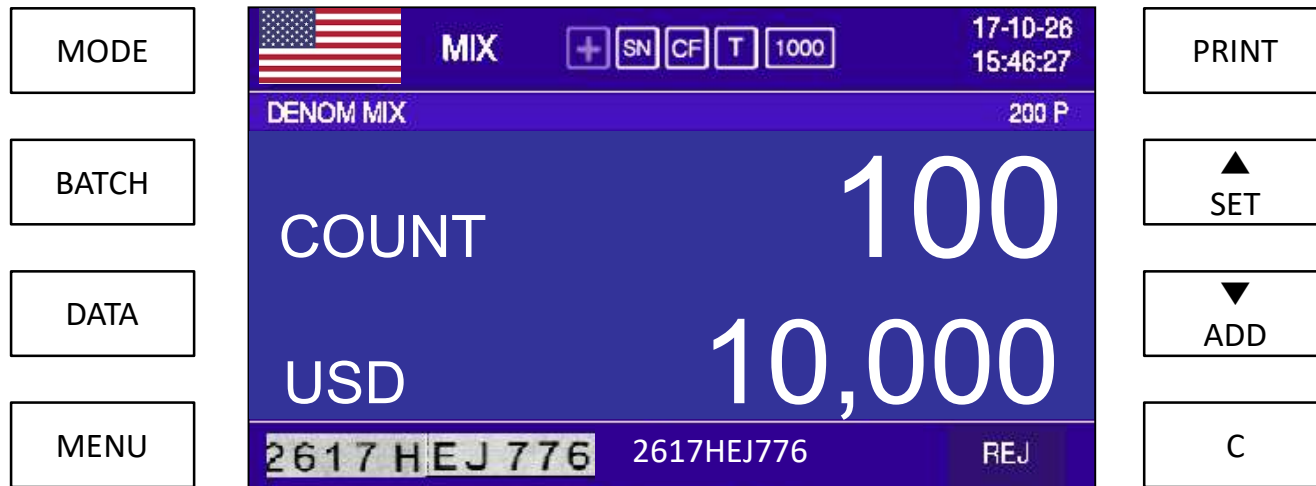
Sensor : CIS / MR / UV / IR / Ultrasonic

Dimension : 11.3" x 11.3" x 10.6 "(W x D x H)

Weight : 17.6 lbs.

Power Supply : 100~240V AC , 50/60Hz

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Operation of Function

MODE	

	PRINT

COUNT   100

USD   10,000

2617HEJ776

Buttons around screen: MODE, BATCH, DATA, MENU, PRINT, ▲ SET, ▼ ADD, C

When the machine is powered on, the screen will be displayed as above.
(The settings in the screen may differ from actual one.)

Touch the icon on the screen or press the button on the side of each icon to select a menu.

Do not use sharp objects such as a pen for touching the icons on the screen.

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Main Menu

| MODE |
| BATCH |
| DATA |
| MENU |

Screen display:
- Flag (USA) MIX + SN CF T 1000   17-10-26 15:46:27
- DENOM MIX   200 P
- COUNT **100**
- USD **10,000**
- 2617 HEJ 776   2617HEJ776   REJ

| PRINT |
| ▲ SET |
| ▼ ADD |
| C |

Button	Short Press	Long Press
MODE	Switching Mode (Mix->Auto->Free)	Switching to the mode settings screen
BATCH	Switching batch value(10->20->50->100->150->200)	Switching to batch value setting screen
DATA	Count Result/Total/History , Serial Number	Switching to the Check-Log screen
MENU	Counting Speed change	Switching to the SETUP screen
PRINT	Counting Print	
▲SET	Changing denomination at DENOM mode	
▼ADD	Changing ADD mode or not	
C	Count clear /Cancel	
START/STOP	Counting Start/Stop/Jam path clear	

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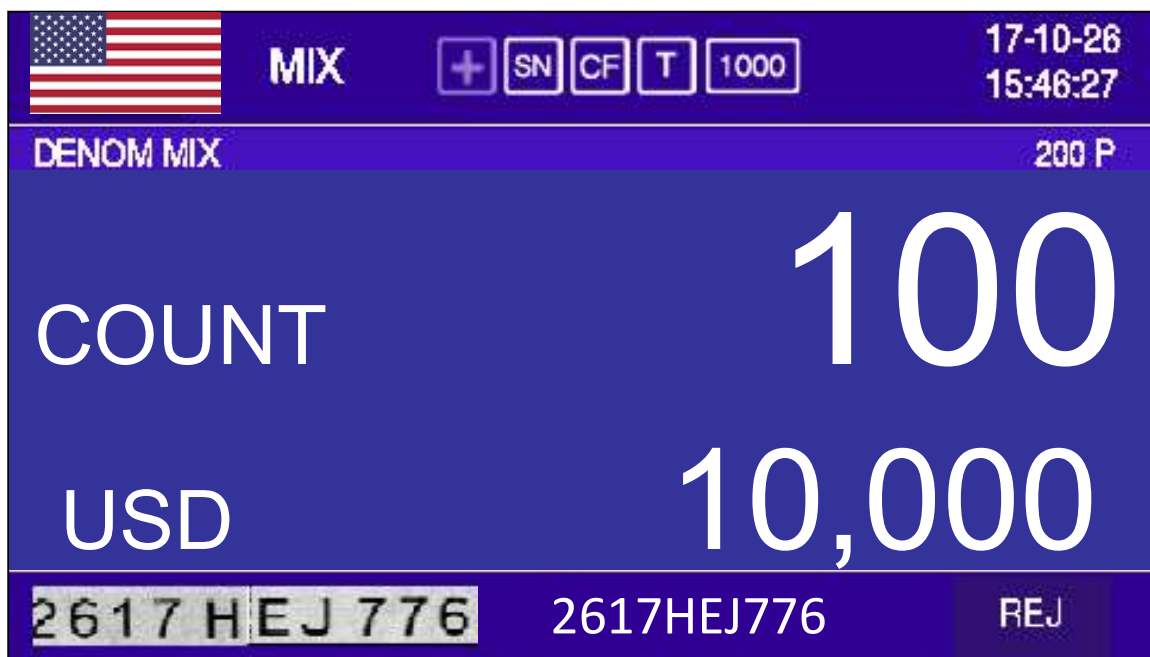
ICON	Screen Touch
	Switching the country currency
	Switching to Time Setup Screen
	Switching to Reject Reason Screen
	Switching to detail counting result Screen

Display the Detail Counting Result

: If you want to see more detail breakdown , Touch the screen after counting .

MODE

BATCH

DATA

MENU

Count Result - Detail (KRW)

Denom	Count	Amount	Detail
1,000	54	54,000	
5,000	43	215,000	Banknote
10,000	56	560,000	
50,000	47	2,350,000	
			Serial No.
Total	200	3,179,000	

PRINT

▲ SET

▼ ADD

C

Button	Short Press
PRINT	Print the counting information / Serial Number
▲SET	Display Off Old & New / PAGE UP
▼ADD	Dsiplay On Old & New / PAGE DOWN
C	Backward
START/STOP	Switching to Main Screen

Screen	Screen Touch
Detail	Display the counting information by denomination
Banknote	Display the information of denomination
Serial No.	Display the serial Number

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Mode Setting

: If you want to change the specific mode , Long Press the "MODE" button .

MODE		PRINT		

Mode

Value	Free
Auto	Mix
Face	Orient	Direction
Add	CF	SN	SORT

Buttons: MODE, BATCH, DATA, MENU
Buttons: PRINT, ▲ SET, ▼ ADD, C

Button	Short Press
C	Changing Cancel / backward
START/STOP	Apply the new mode / Switching to Main Screen

Screen	Screen Touch
Auto	Counts only one denomination initially counted
Mix	Shows total amount and number of banknotes when mixed denominations are counted together.
Free	Counts the total number of banknote without recognition of denomination
Add / CF / SN / SORT	On/Off the Add/ Counterfeit /Serial Number /SORT function

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Batch Setting

: If you want to change the specific batch value , Long Press the "BATCH" button .

| MODE |
| BATCH |
| DATA |
| MENU |

Batch Setting

| PCS | Amount |
| 200 |
Add	SUB
1	5	10
50	100

7	8	9
4	5	6
1	2	3
	0	Erase

| PRINT |
| ▲ SET |
| ▼ ADD |
| C |

Button	Short Press
C	Changing Cancel / backward
START/STOP	Apply the new mode / Switching to Main Screen

Screen	Screen Touch
All Number Key	Input the number of batch

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Simple Trouble shooting guide1

Trouble. When there is a lot of Pre-processing image error
Solution 1. Remove dust on the CIS.
Solution 2. Check the GAP of insert module using Test-Note
Solution 3. Adjust the GAP for insert module.
      (- direction or + direction , **P1.1 See picture below)**

Trouble. When there is a lot of denomination recognizing error
Solution 1. Remove dust on the CIS.
Solution 2. Check the image using Test-Note.
Solution 3. If the image is abnormal, Try CIS calibration
Solution 4. Update the currency SW again using USB.

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Simple Trouble shooting guide 2

Trouble. When there is in case of a continuous " Check CIS " message
Solution 1. Remove dust on the CIS.
Solution 2. Update the FPGA SW again using USB
Solution 3. Update the APL SW again using USB
Solution 4. Update the DSP SW again using USB

Trouble. When alert window does not disappear after removal of JAM
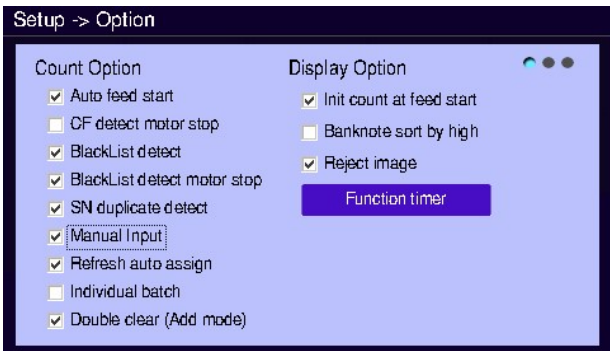Solution 1. Try again open/close Main Cover & Back Cover
Solution 2. Update the Mecha SW again using USB
Solution 3. Replace the IR sensor PCB

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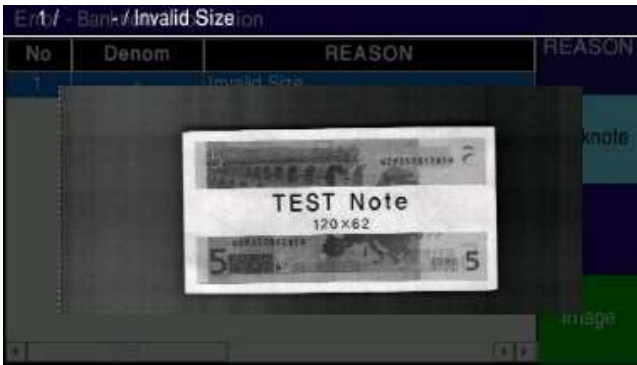# Simple Trouble shooting guide 3
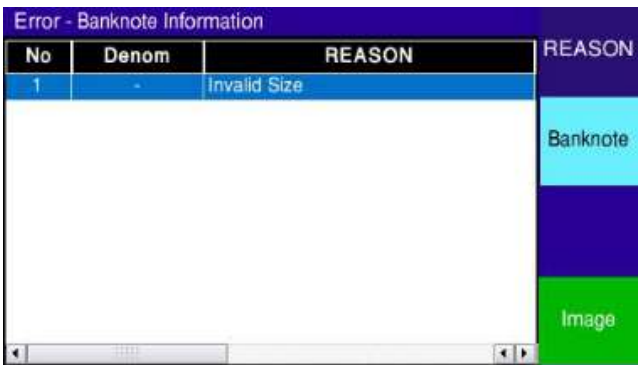
Check Reject Image

Setup -> Option -> 1st page -> Mark the Reject Image

When the error screen appears.

Screen touch "R" -> Banknote -> Image

Reject Reason List

Code	Reject Reason
R-01	Unfit (Unfit)
R-02	Unfit (Stain)
R-03	Unfit (Breakage)
R-11	Tape
R-12	Double
R-1A	Miss Denom(CIS)
R-1B	Miss Denom(Reflection)
R-1C	Miss Denom(Transmission)
R-1D	No NN Patern
R-1E	Other Paper Size

Code	Reject Reason
R-1F	No Same Patern
R-20	Reco Chain
R-21	Other Denom
R-22	Other Face/Orient
R-23	Over Pocket
R-24	Not Defined Denom
R-25	Insert Chain
R-26	Too Skewed MG
R-50	Recognition Double
R-60	No Serial Number Face

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Reject Reason List

Code	Reject Reason
R-C1	Suspect IR
R-C2	Suspect UV_T
R-C3	Suspect IR, UV_T
R-C4	Suspect UV_R
R-C5	Suspect IR, UV_R
R-C6	Suspect UV_T, UV_R
R-C8	Suspect MG_D
R-C9	Suspect IR, MG_D
R-CA	Suspect UV_T, MG_D
R-CB	Suspect IR, UV_T, MG_D

| Code	Reject Reason
R-CC	Suspect UV_R, MG_D
R-CD	Suspect IR, UV_R, MG_D
R-CF	Suspect UV_R, UV_T, MG_D
R-D0	Suspect MG_U
R-D1	Suspect IR, MG_U
R-D2	Suspect UV_T, MG_U
R-D3	Suspect IR, UV_T, MG_U
R-D4	Suspect UV_R, MG_U
R-D5	Suspect IR, UV_R, MG_U
R-D6	Suspect UV_R, UV_T, MG_U

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Guide for Component

1. The Hopper sensor and rollers

Clean the hopper sensor and roller as shown in the photo below
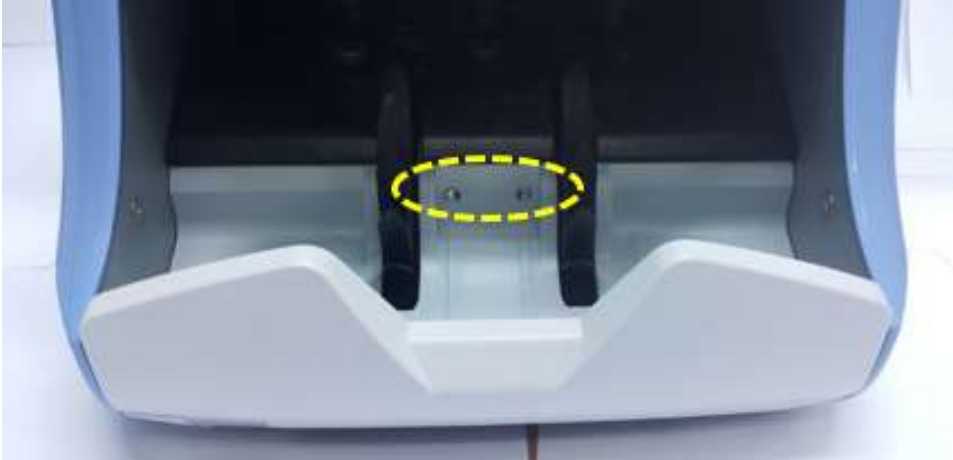with a soft towel or a brush

2. Recognize Detector Sensor

Open the cover by pulling the lever and clean the sensor as shown in the photo with a soft towel or a brush

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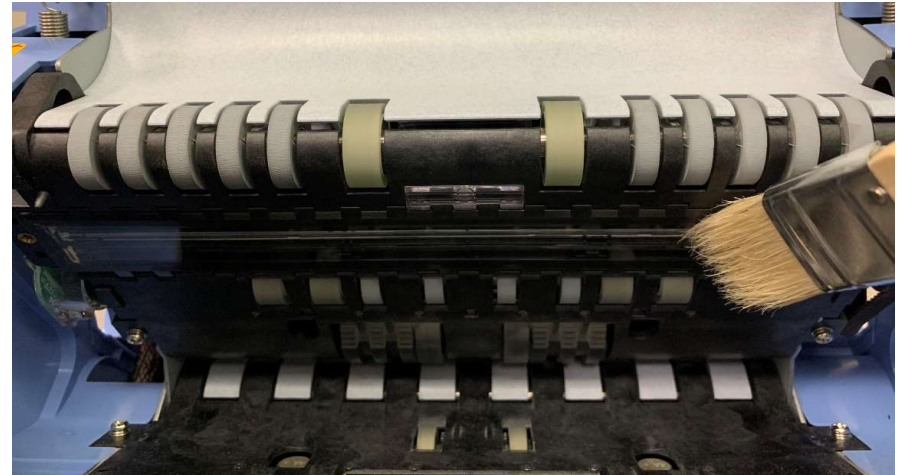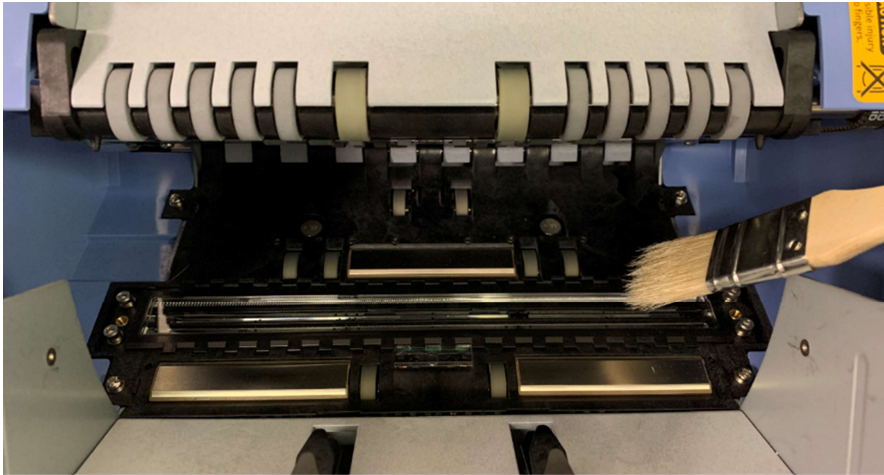
3. Stack Sensor

Clean the sensor as shown in the photo with a soft towel or a brush

4. The dust pocket
Pull out a dust tray and clean

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KISAN will make continuous efforts to improve our products.

Thank you