

User Manual

NC7500 Heavy-Duty 2-Pocket Fitness Sorter

Please read this manual thoroughly before operating.

Keep this manual for future reference.

For further assistance, please visit us at www.automodules.com

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REVISION HISTORY

DATE(MM/DD/YYYY)	REVISION	MODIFICATIONS
01/12/2020	1.0	Release
26/Apr/2021	1.1	Added some functions
06/05/2022	1.4	Display Screen

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ABBREVIATION AND ACRONYMS USED

CIS : Contact Image Sensor	MR : Magnet Resistive
IR : Infrared	PC : Personal Computer
LCD : Liquid Crystal Display	SD : Secure Digital
MA : Masterwork Automodules	USB : Universal Serial Bus
MG : Magnetic	UV : Ultra Violet
PMI : Person Machine Interface	TITO : Ticket-In, Ticket Out

IMPORTANT NOTES & SAFETY PRECAUTION



Electrical Safety

To avoid the risk of electrical shock, fire or damage to NC7500:

- DO NOT remove the side covers, rear or bottom cover in any situation.
- DO NOT disassemble NC7500 by yourself or anyone unauthorized by Masterwork Automodules.
- DO NOT use damaged or worn power cord or plugs. Always use the power cord supplied inside the original packaging carton and connect to a properly grounded power outlet or to a power strip with surge protector. The power source for NC7500 is AC 100V~240V, 50/60Hz.
- If a foreign object does fall into the NC7500, turn off the power and unplug immediately. Contact the NC7500 service provider for assistance.
- Keep liquids away from NC7500. DO NOT operate, DO NOT touch the device if it is wet.. If a spill occurs, turn off the power and unplug immediately. Contact one of our authorized service providers for help.



Battery

- High or low extreme temperatures that a battery can be subjected to during use, storage or transportation; and low air pressure at high altitude.
- Replacement of a battery with an incorrect type that can defeat a safeguard (for example, in the case of some lithium battery types);
- Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion;
- Leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas;
- A battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

Class I Equipment

This equipment must be earthed. The power plug must be connected to a properly wired earth ground socket outlet. An improperly wired socket outlet could place hazardous voltages on accessible metal parts.

Product Surfaces

- Use a non-abrasive cloth moistened with a mild cleaning product or soap and water to wipe it down.
- Care should be taken not to saturate the surfaces with liquid.
- DO NOT clean the surfaces with solvent-based products as they may cause the damage.
- DO NOT clean the surfaces with paper towels. The wood fibers present in paper towels will scratch the surface and overtime cause a scuffed appearance.
- DO NOT disturb the internal wiring in the kiosk during vacuuming or performing any cleaning work.
- DO NOT let dusty to block the fan vent, pay attention to the ventilation of the kiosk fan hole.

Caution

- Keep body parts away from moving parts
- Keep body parts away from Encoder Disc
- Keep body parts out of the motion path



Important

In order to count banknotes smoothly without jamming or error, it is crucial to:

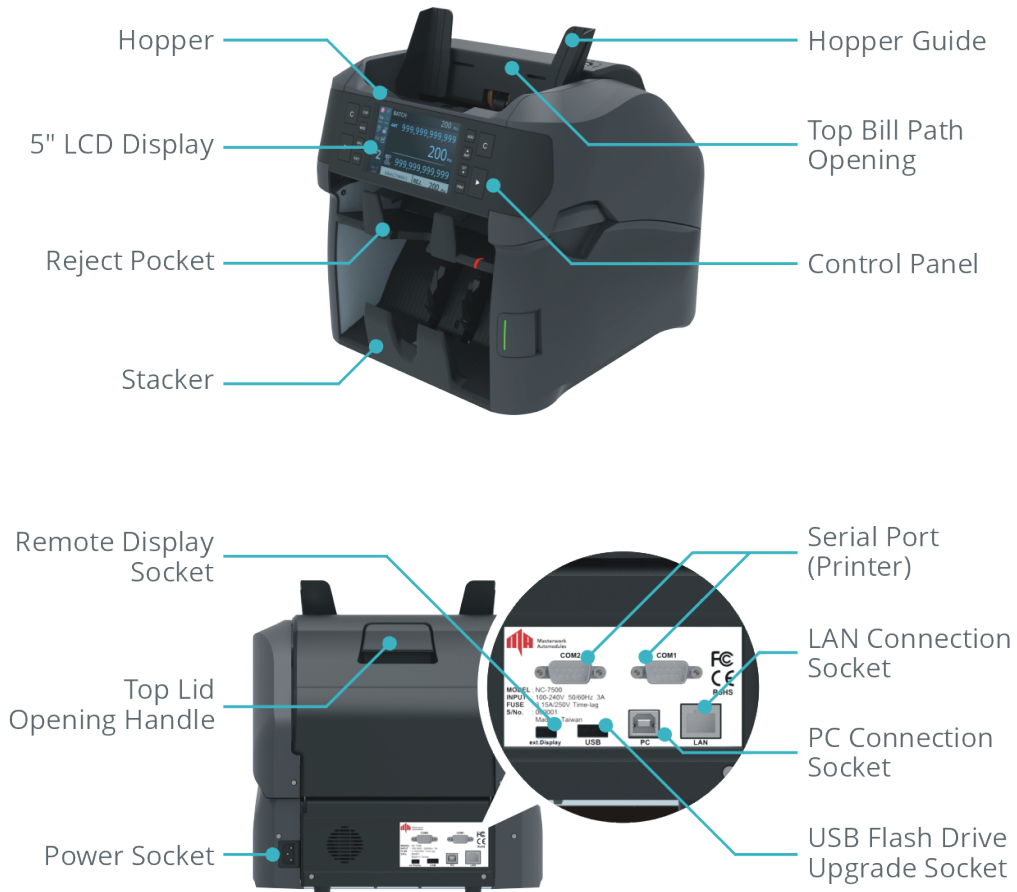
- Avoid counting wet, excessively dirty, spoiled banknotes.
- Check if foreign objects such as clips, staples or rubber bands stuck with banknotes, remove them or it could jam the conveyor or hopper even end up damaging the sensors.
- Flatten folds or curls banknotes before placing them onto the hopper.



NC7500-OVERVIEW

AT A GLANCE

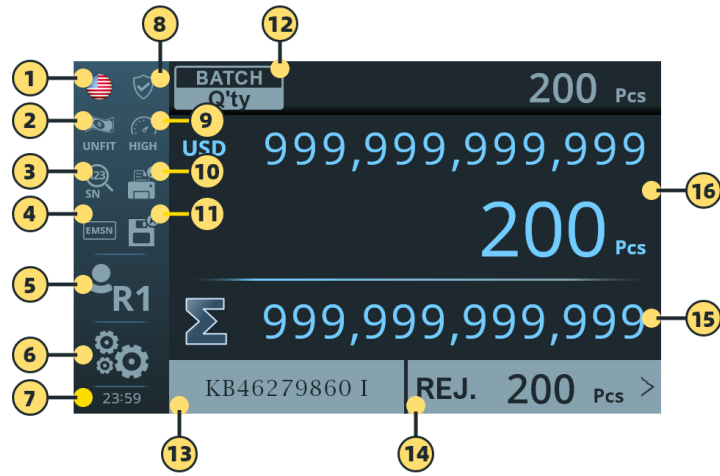
Front / Rear View



CONTROL PANEL



DISPLAY SCREEN



1. Currency Symbol

8. Detection

2. Fitness Mode

9. Counting Speed Icon

3. Serial Number Capture

10. Auto / Manual Print Indication

4. Sorting Modes

11. Auto / Manual Save Information

5. User 1 / User2 Icon

12. Batch

6. Setting Menu

13. Serial Number

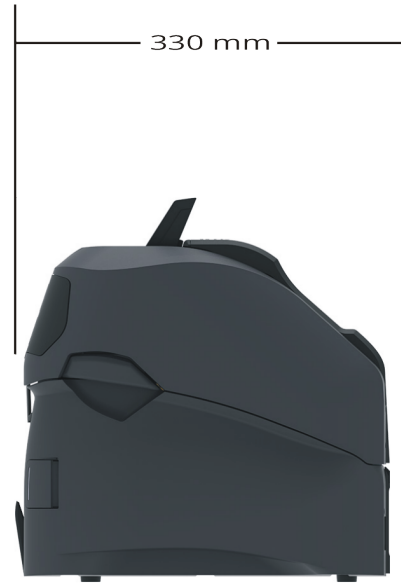
7. Current Time

14. Reject Note Qty

15. Total Amount

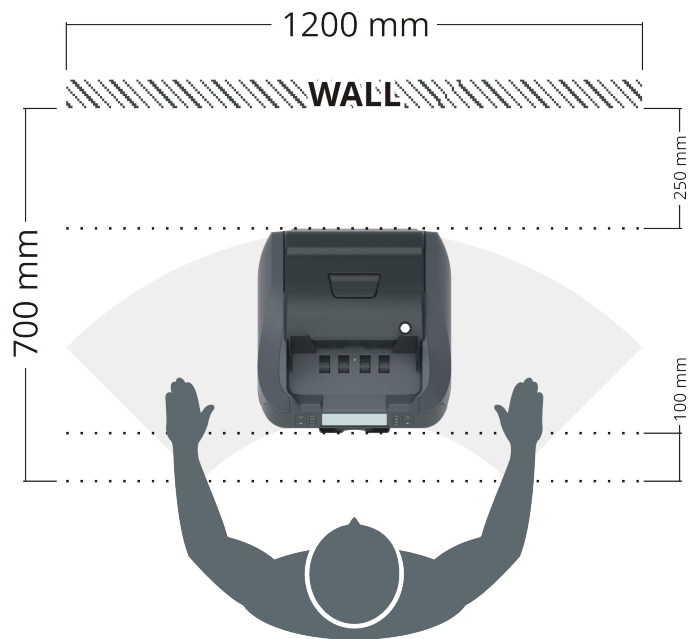
16. Counting Result

DIMENSIONS



WORKING SPACE

For maximal comfort and user experience, the following measurements are suggested in setting up the NC7500.



OPERATION

Get Started

Power ON/OFF

STEP 1

Plug one end of the power cord to the AC power socket located at the rear end of the machine, and the other end to a standard and properly grounded AC power wall outlet, or to a power strip.



STEP 2

Locate the On /Off switch at the lower right side of the machine and press once. The green light indicates that the power had been switched on.



STEP 3

Once the system initialization completes, the main screen will appear on the LCD display, and NC7500 is ready to be operated.



STEP 4

Please make sure that all the data is saved prior to switching off the power.

To turn off the power, press the switch once to Off (O). The green light shuts down to indicate that the power had been switched off.



Preparation

STEP 1

Avoid counting wet, excessively dirty, or spoiled banknotes.

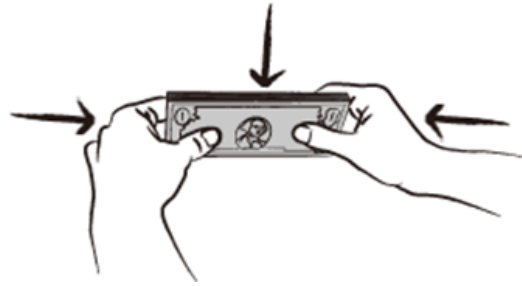
Check for foreign matters that may be mixed with the banknotes, e.g., paper clips, rubber bands, dust, which jam the Bill Path or even damage the sensors.

Flatten folds or curls from the banknotes before placing into the Hopper.



STEP 2

Align all corners and edges of the banknotes prior placing them onto the Hopper, as unevenness could cause errors.



STEP 3

Put the banknotes in the center of hopper and adjust the Hopper guides if necessary.

By default, NC7500 starts running as soon as banknotes are placed onto the Hopper. Go to configurations in **Settings** → **Auto** to change to manual run (press ► **Start** to run).



Dual Users Operation Buttons

NC7500 allows two individual counting operations at a time, and saves counted results separately. The counted results from different users can also be printed by separate printers.

All banknotes processing functions, settings, and preferences are saved individually without cross interference.

In addition, up to 10 users settings can be saved and loaded whenever needed.



STEP 1

First, select user L or R by pressing ► **(Start)** on the selected side, then choose a user profile by tapping the **User** icon on the left pane of screen.

During operation, switch users by pressing **C** on both sides simultaneously, then ► **(Start)** on the selected side to activate.



STEP 2

Press ► **(Start)** on the left pane of control panel to shift to **User L1** (Left).

Confirm and/or cancel all banknotes processing function by using **C** and ► **(Start)** on the left pane.

An icon indicating **L1** is shown on the display.



STEP 3

Press ► **(Start)** on the right pane of control panel to select **User R1** (Right).

Confirm and/or cancel all banknotes processing function by using **C** and ► **(Start)** on the right pane.

An icon indicating **R1** is shown on the display



STEP 4

To clear the counting results for **User R/User L**, press **C** by the corresponding user.



NOTE

Dual User Operation applies to counting modes only. This functions does not apply to general settings under the Setting menu.



Counting Banknotes

Follow instructions below and select a feature to process banknotes according to your requirements.

Select a Currency

If your NC7500 comes with multi-currency installed, you can select to process single, mixed and auto currencies.



There are two ways to select one of the factory preset currencies:

1. Press the **CUR** button repeatedly until the desired currency is selected.
2. Tap the **Flag** icon on the top left of the screen. A menu appears with all installed currencies options, including **COUNT**. Select a currency and start processing the banknotes.
3. Other currency options include **AUTO** and **MIX**. To enable **AUTO** and **MIX**, please go to **SETTING** → **CONFIG** → **DEVICE SETUP** → **Auto Mix Currency**.



CNT - Piece Counting Mode

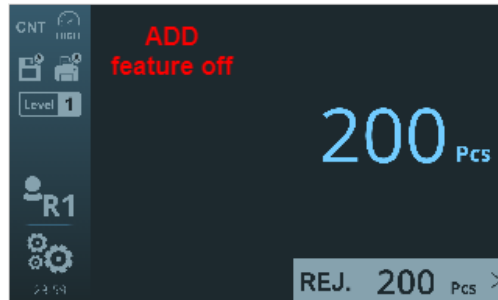
Piece Counting Mode counts banknotes without suspicious note detection.

To select **CNT - Piece Counting Mode**, press the **CUR** button repeatedly until the **CNT** icon appears on the top left corner of the screen. Users can also tap the top left corner of the screen to select **COUNT**.

Under the **CNT** mode, **ADD** feature can be turn on/off. When **ADD** is on, current counted pieces are shown on the top half of the screen, while total counted quantity is accumulated automatically on the bottom half of the screen. When **ADD** is off, only current counted pieces are shown.

Press the **Level 1** icon (**Level**) to choose between four levels of banknote detection tolerance. This function rejects banknote sizes outside of its tolerance range, for example overlapping notes or smaller/larger notes. The benchmark for area and thickness is defined by the first detected banknote of each processed batch. The tolerance range varies according to each level, as shown below.

- Level 1** Level 1: area tolerance range $\pm 25\%$
- Level 2** Level 2: area tolerance range $\pm 31\%$, thickness tolerance range $\pm 31\%$
- Level 3** Level 3: area tolerance range $\pm 25\%$, thickness tolerance range $\pm 25\%$
- Level 4** Level 4: area tolerance range $\pm 16\%$, thickness tolerance range $\pm 16\%$



Batch Counting

Preset a quantity or amount of banknotes, and the machine stops counting accordingly when the number is reached, while unnecessary values and suspicious notes are delivered to the Reject Pocket.

STEP 1

Activate this mode by pressing **BAT** repeatedly to select counting batch by quantity or amount.



STEP 2

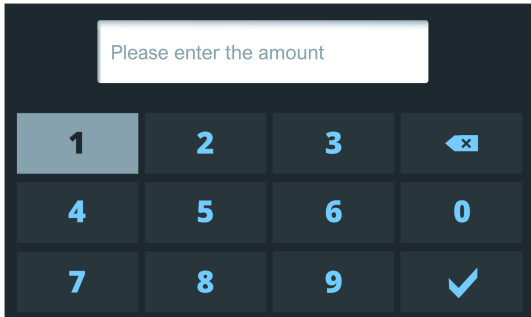
Tap on the **Batch** icon to bring up numeric keys for entering quantity/amount.



STEP 3

Enter a number and touch the **✓ (Tick)** button to save and return to previous screen.

If you wish to exit without entering a number, simply tap on the area outside of the numeric keys to return to the main screen.



STEP 4

The preset batch is then indicated on the upper portion of display.

The **Pcs** displayed indicates counting a batch by quantity. The other option is to count by amount.'



STEP 5

To cancel the batch, press the **BAT** button until the **BATCH** icon disappears from the screen.



Sorting Mode

Sorting Mode counts banknotes with different sorting options.

STEP 1

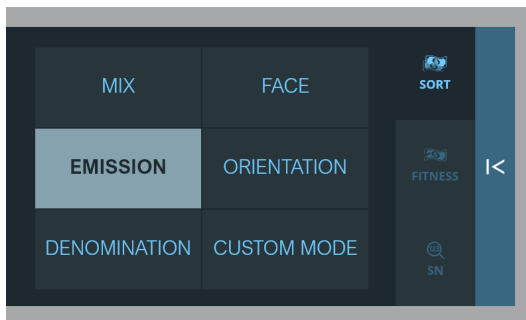
Bring up the menu by pressing the **MOD** button, or tapping the small icons on the left pane.

Select a Sorting Mode.



STEP 2

Tap the screen to select a Sorting Mode. The display will return to the main screen automatically after selection.



STEP 3

The selected Sorting Mode is shown on the left pane of the display, as indicated below.









STEP 4

Start processing banknotes.



Features under Sorting Mode

NC7500 comes with six Sorting Modes that helps improve banknote counting efficiency. See the table below for detailed definition of each Sorting Mode.

	Mixed Value Mode
	Counts mixed denomination banknotes. Suspicious banknotes are delivered to the Reject Pocket.
	Deno Sorting Mode
	Sorts banknotes by the denomination of the first detected genuine banknote, and delivers banknotes with different denominations and suspicious banknotes to the Reject Pocket.
	Face Sorting Mode
	Sorts banknotes by the facing of the first detected genuine note. Delivers banknotes with different facings and suspicious banknotes to the Reject Pocket.
	Orientation Sorting Mode
	Sorts banknotes by the orientation of the first detected genuine banknotes. Delivers suspicious banknotes and banknotes with deviating orientations to the Reject Pocket.
	Emission Sorting Mode
	Sorts banknotes by the emission of the first detected genuine banknotes, and delivers banknotes with different emissions and suspicious notes to the Reject Pocket.
	Custom Sorting Mode
	This function is a combination of DENO , FACE , ORNT , and EMISN modes. Users can combine sorting functions accordingly.

Fitness Mode

Fitness Mode sorts banknotes according to its quality.

STEP 1

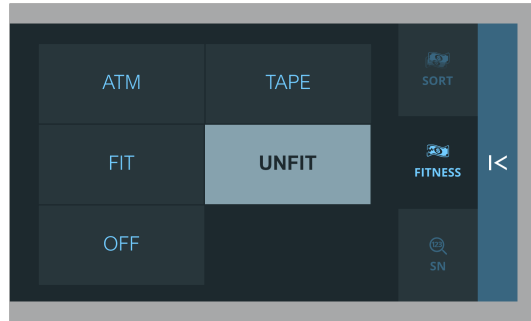
Bring up the menu by pressing the **MOD** button, or tapping the small icons on the left pane.

Then tap the **Fitness** tab on the right side of the display, and select a Fitness Mode.



STEP 2

Tap to select a Fitness Mode. The display will return to the main screen automatically after the selection.



STEP 3

The selected Fitness Mode is shown on the left pane of the display, as indicated below.








STEP 4

Start processing banknotes.



Features under Fitness Mode

NC7500 comes with five Fitness Modes that help improve banknote counting efficiency. See the table below for detailed definition of each Fitness Mode.

 ATM	ATM ATM banknotes are sorted to the Stacker, while FIT and UNFIT banknotes are sorted to the Reject Pocket.
 FIT	FIT ATM and FIT banknotes are sorted to the Stacker, while UNFIT banknotes are sorted to the Reject Pocket.
 UNFIT	UNFIT UNFIT banknotes are sorted to the Stacker, while ATM and FIT banknotes are sorted to the Reject Pocket.
 OFF	OFF Turn off Fitness Mode.
 TAPE	TAPE Deliver taped notes to the Reject Pocket, while the rest goes to the Stacker.

Serial Number Mode

Serial Number Mode controls features regarding banknote serial numbers.

STEP 1

Bring up the menu by pressing the **MOD** button, or tapping the small icons on the left pane.

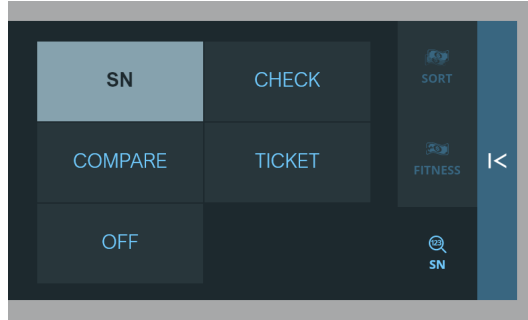
Then tap the **SN** tab on the right side of the display, and select a SN Mode.



STEP 2

Detect and log the serial number of the banknotes.

The serial numbers of accepted banknotes can be shown on a connected PC, or printed out via a connected printer.



Features under Serial Number Mode

NC7500 comes with five Serial Number Modes that helps to improve banknote counting efficiency. See the table below for detailed definition of each Serial Number Mode.



Serial Numbers

Detect and log the serial number of banknotes.

The serial numbers of accepted banknotes can be shown on a connected PC, or printed via a connected printer.



Serial Compare

Compare serial numbers on the same sides of banknotes.

The serial numbers of accepted banknotes can be shown on a connected PC, or printed via a connected printer.



OFF

Turn off the serial number recording feature while processing banknotes.



TITO

Function to read TITO (ticket-in, ticket-out). For casino use.



Cheque

Function to read cheques.

Counting Information

When banknote processing is completed, various data can be displayed meet user requirements.

List View

When banknotes processing is completed, press INFO to see the detailed information of the current transaction.

STEP 1

Press the **INFO** button.



STEP 2

Detailed result is shown with all information available, including the value, quantity and subtotal of accepted banknotes.

Scroll to next page by sliding up and down the list.

The screenshot shows a detailed list of banknotes. The table has three columns: Deno., Current Cnt., and Amount. The list includes 1 x 100, 5 x 20, 10 x 10, and 100 x 5. At the bottom, a summary row shows '18 PCS = 611'. The left side of the screen shows various icons and 'R1'.

Deno.	Current Cnt.	Amount
1 x	1 =	1
5 x	2 =	10
10 x	10 =	100
100 x	5 =	500
Σ		18 PCS = 611

STEP 3

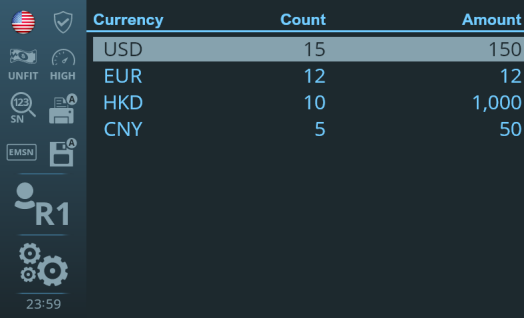
For mixed-currency transactions, the list is presented by currency, count, and sub-total amount.

Detailed breakdown can be displayed by tapping on the selected currency.

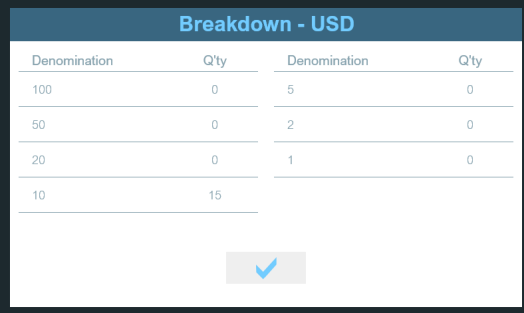
The detailed breakdown is listed by denomination in quantity of notes. Scroll to next page by sliding up and down the list.

Tap the **blue tick** to return to previous screen.

Press **C** to delete all counting info. Press **INFO** to return to the main display.



Currency	Count	Amount
USD	15	150
EUR	12	12
HKD	10	1,000
CNY	5	50



Denomination	Q'ty	Denomination	Q'ty
100	0	5	0
50	0	2	0
20	0	1	0
10	15		

Counted Info Conciliation

If the counted results require manual adjustments, activate the Reconcile feature to make adjustments.

STEP 1

From the list, tap on any row of data to make conciliation. A Reconciled row with red numbers will appear to indicate where users can make manual adjustments.

Deno.	Current Cnt.	Amount
1 x	1 =	1
5 x	2 =	10
10 x	10 =	100
100 x	5 =	500
Σ		18 PCS = 611

Deno.	Pcs	Reconciled	Amount
1 x (	1 +	0 =	1
5 x (	2 +	0 =	10
10 x (	10 +	0 =	100
100 x (	5 +	0 =	500
Σ			18 PCS = 1,611

STEP 2

Tap on the number you wish to make adjustments, and a numeric keyboard will appear for users to enter. Tap on the ✓ (Tick) button to confirm and return to the previous screen.

If you wish to include coin values in the counted result, tap on the text box next to Coin and input coin values, then press ✓ (Tick) to return to the previous screen.

Tap the **blue tick** to save the data, otherwise the **red cross** to cancel and return to previous screen without making any changes.

Deno.	Pcs	Reconciled	Amount
1 x (	1 +	1 =	2
5 x (	2 +	0 =	10
10 x (	10 +	0 =	100
100 x (	5 +	0 =	500
Sub Total			Note 611
			Coin 0

Deno.	Pcs	Reconciled	Amount
1 x (	1 +	1 =	2
5 x (	2 +	0 =	10
10 x (	10 +	0 =	100
100 x (	5 +	0 =	500
Σ			18 PCS = 620
Sub Total			Note 611
			Coin 9

Grand Total

All confirmed transactions are accumulated into the **Grand Total** list, available when **ADD** is activated.

STEP 1

After banknotes are counted, press the **GT** button.



STEP 2

Detailed information of the current transaction is accumulated into total amounts and quantities.

Press **GT** twice to view the accumulated total of the day.

Press **GT** thrice to view semi-annual reports of accumulated total.

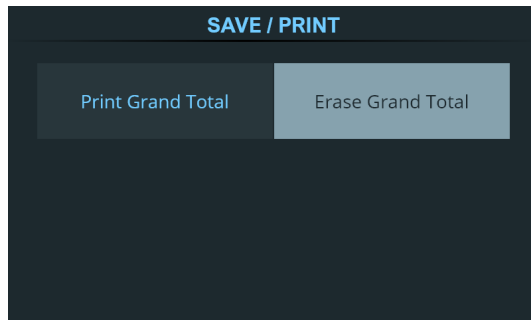
GRAND TOTAL		
USD		
1 X	2 Pcs =	2
2 X	10 Pcs =	20
5 X	1 Pcs =	5
10 X	3 Pcs =	30
20 X	5 Pcs =	100
50 X	6 Pcs =	300
100 X	1 Pcs =	100
Σ		28 PCS 557

STEP 3

Press **PRNT** to view print options. Tap to select an option.

Options available:

1. **Print Grand Total** - Print grand total via connected printers.
2. **Erase Grand Total** - Delete the accumulated grand total.



Day Total


Daily confirmed transactions are accumulated into the **Day Total** list. This is only available when **ADD** is activated.

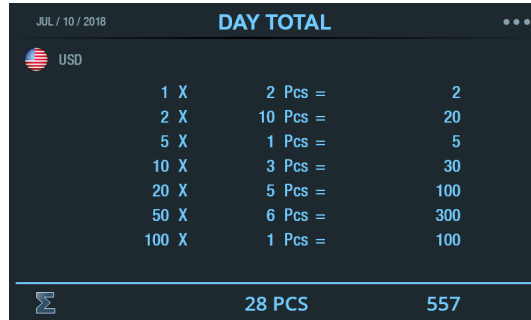
STEP 1

Press the **GT** button twice.



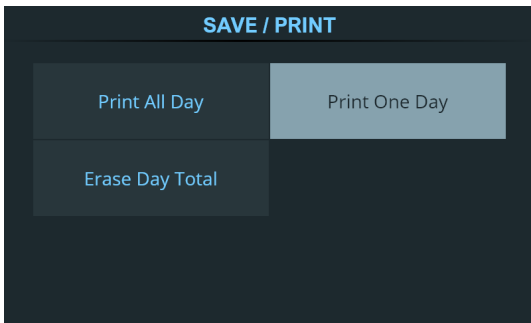
STEP 2

All counted information within 30 days is saved in you NC7500. Tap the  button (3-dotted icon on the upper right corner) to bring up the date picker to see results of a specific date or month.



STEP 3

Press **PRNT** to view print options. Tap to select an option.



Options available:

1. **Print All Day** - Print all counted information within 30 days.
2. **Print One Day** - Print the counted information of a selected day.

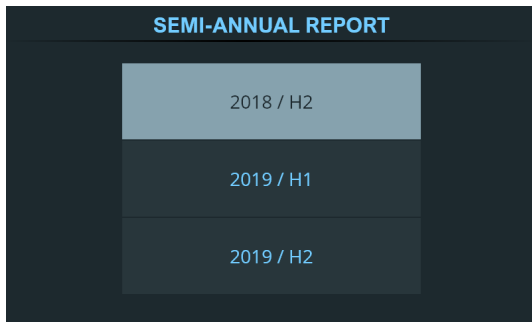
Semi-Annual Report

Confirmed transaction history accumulated into the **Semi-Annual Report** list. This is only available when **ADD** is activated.

STEP 1

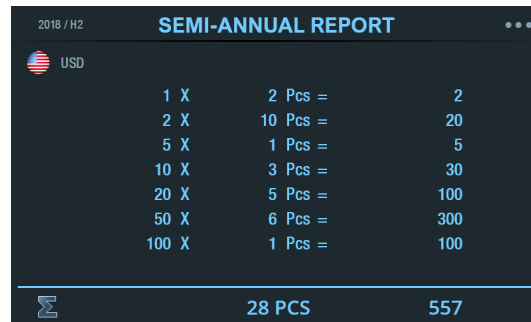
Press the **GT** button thrice to bring up options for Semi Annual Report.

Tap to select information.



STEP 2

All confirmed transaction is displayed in Semi-Annual Reports. Scroll to next page by sliding up and down the list.



Rejected Reason

Once banknotes processing is complete, press the **RJCT** button to see detailed information of the rejected banknotes.

The number shown inside each rejected reason category indicates the total number of rejected banknotes with same condition.

Total number of rejected banknotes is shown in the bottom right corner.

Press any category to see detailed information regarding the rejected notes, including currency, reason for error, serial number, and an image of the banknote.



REJECT REASON			
Doubled PCS	Chain PCS	Skew PCS	Note Gate PCS
Soiling PCS	Dog Ears PCS	Stains PCS	Holes PCS
Tape PCS	Tears PCS		
IR Error PCS	UV Error PCS	MG Error PCS	IMG Error PCS
Deno. PCS	SN Error PCS	Other Error PCS	Total PCS

REJECT REASON			
No.	Currency	Error	Serial Number
1.	USD	Doubled	KB46279860 I
2.	USD	Doubled	GD35075561 I
3.	EUR	Doubled	KB40039842 I
4.	EUR	Doubled	AK35479811 I
5.	EUR	Doubled	KB20576555 I
6.	CNY	Doubled	DF11028462 I
7.	USD	Doubled	BD63271530 I

REJECT REASON			
No.	Currency	Error	Serial Number
1.	USD		
2.	USD		
3.	EUR		
4.	EUR		
5.	EUR		
6.	CNY	Doubled	DF11028462 I
7.	USD	Doubled	BD63271530 I

Definitions of Reject Reasons

Doubled	Banknotes overlapped while counting.
Chain	Banknotes partially overlapped in the Bill Path.
Skew	Banknote skewed during the process.
Note Gate	Banknotes are too close together.
Soiling	Soiled banknotes
Dog Ears	Banknote with folded corner(s)
Stains	Stains on banknotes
Tape	Taped banknotes
Tears	Torn banknotes
IR Error	Banknote with infrared detection error
UV Error	Banknote with ultraviolet detection error
MG Error	Banknote with magnetic detection error
IMG Error	Banknote with image detection error
Deno.	Unrecognizable/Undetectable banknotes
SN Error*	Serial number recognition error
Other Error	Other errors
Holes	Large hole on banknotes



NOTE

SN Error in serial number recognition mode is only shown in model types SE, ME, and DE.

Setting

Auto/Manual Options

The NC7500 features a few Auto/Manual options. Access to this option and select according the preference with instructions below.

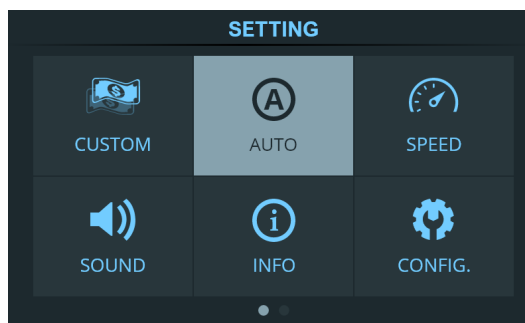
STEP 1

Access to the Setting Menu by tapping on the **Gear** icon.



STEP 2

Select **AUTO** to change its settings.



Auto/Manual

Enable/disable features by tapping on the switch. Press **C** to exit the menu.

Auto Start Enabled: Machine automatically starts counting once banknotes are placed on the Hopper.

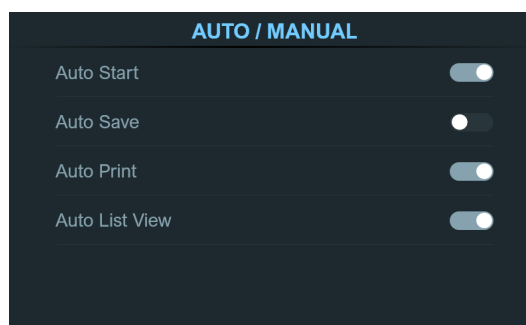
Auto Start Disabled: Users need to manually press the **(Start)** button every time to start counting banknotes.

Auto Save Enabled: Machine automatically saves current process result.

Auto Save Disabled: Users need to manually press the **PRNT** button then select **Save** each and every time to save the data.

Auto Print Enabled: Machine automatically prints current process result.

Auto Print Disabled: Users need to manually press the **PRNT** button then select **Print** each and every time to print the data.



Counting Speed

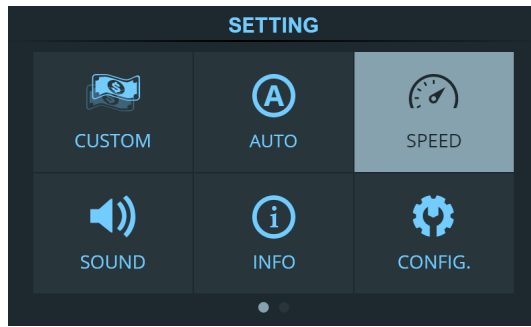
The following instruction shows how to adjust Counting Speed.

STEP 1

Access **Settings** by tapping the gear icon.

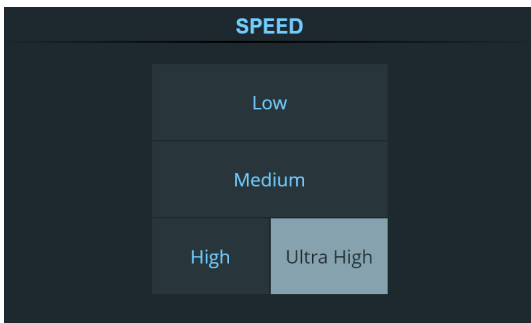
STEP 2

Select **SPEED** on the display.



STEP 3

Different speed options are available. Select your preference and the display returns to previous page automatically.



- Low:** 600 notes/minute
- Medium:** 900 notes/minute
- High:** 1200 notes/minute
- Ultra High:** 1600 notes/minute

STEP 4

The current Counting Speed is shown on the status bar, which is located on the left pane of the display.



Printing/Saving Functions

Print result receipts via connected printers, or save information to plug-in flash drives.

STEP 1

Connect NC7500 to printers via COM 1/COM 2 on the back of the machine.



STEP 2

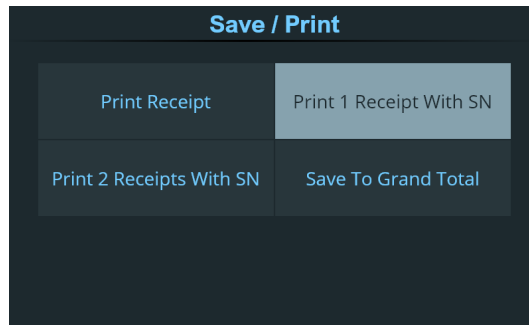
Press the **PRNT** button to bring up the **Save/Print** menu. Tap to select an option.



STEP 3

Tap to select an options available:

1. **Print Receipt:** Print one receipt via connected printers.
2. **Print 1 Receipt with SN:** Print one receipt, including the serial numbers of all processed and authenticated notes, via connected printers.
3. **Print 2 Receipt with SN:** Print two receipts, including the serial numbers of all processed and authenticated notes, via connected printers.
4. **Save to Grand Total :** processed banknotes data will be saved the data to Grand Total.



STEP 4

Printed receipts list information such as **Printer Title, Currency, Quantity by Denominations, Subtotal, Total Quantity, and Amount.**

```
MA Technology Corp., Ltd.
NO:00008
05-23-2017 18:31:24
Machine ID : NC7101-B01AE
User ID : USER1
Machine SN : 100714
Batch ID :

-----
Currency: EUR
Fitness Mode : None
-----
Counted Result
Denom      Pcs      Amount
€ 200 X    1 =      200
-----
SubTotal                  200
-----
Coin                                0.00
-----
Total      1 =      200
-----
Reject Qty  0
-----
```

STEP 5

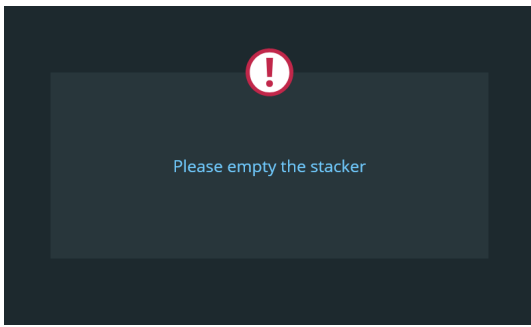
Press **PRNT** again to return to previous screen after options are selected and data has been saved/printed correctly.

Error Messages

When the Upper Bill Path is jammed, an error message window appears. The error message can be cleared with the following procedures.

Press **C** to clear error message.

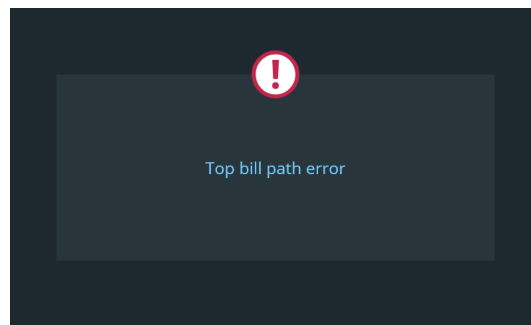
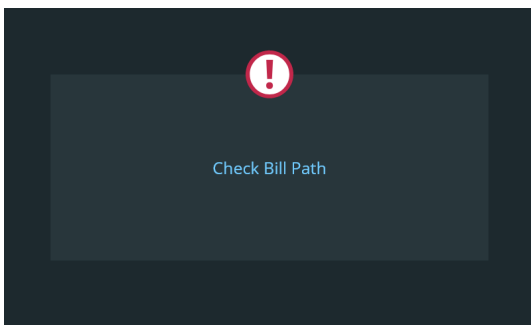
The motor will run in medium speed to deliver all the foreign matters in the Bill Path to the Reject Pocket.



Error Type - Foreign Matters and Jammed Banknotes

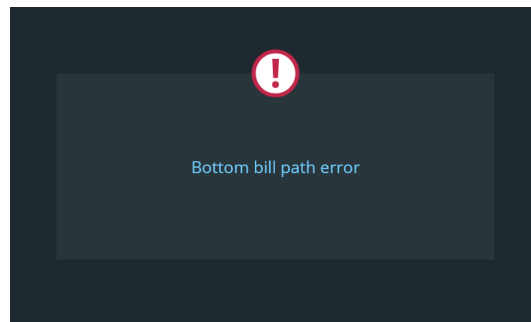
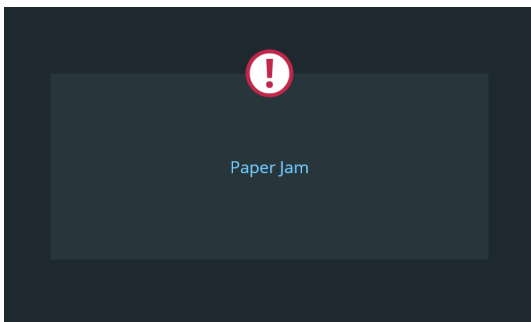
Please open the Bill Path to check for foreign matters inside.

Please open the Upper Bill Path to check for foreign matters inside.



Please open the Bill Path to remove jammed banknotes.

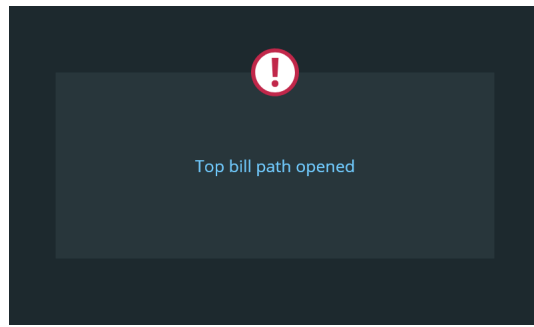
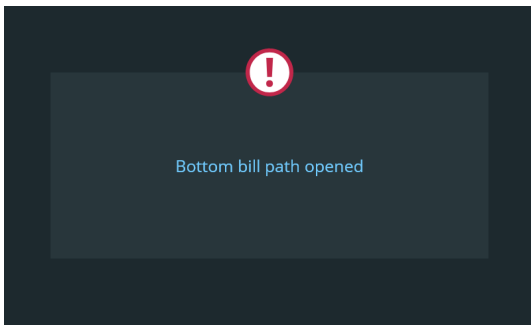
Please open the Lower Bill Path to check for foreign matters inside.



Error Type - Open Bill Paths

Please close the Lower Bill Path before operation.

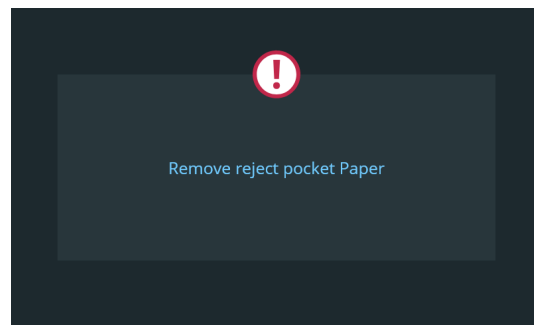
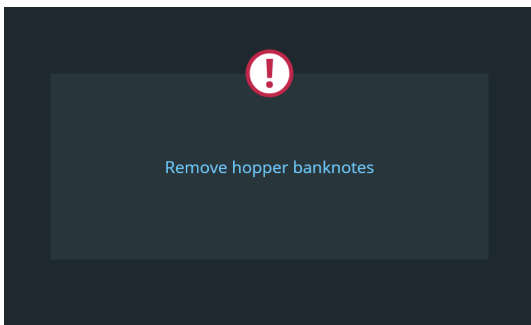
Please close the Upper Bill Path before operation.



Error Type - Removing Banknotes

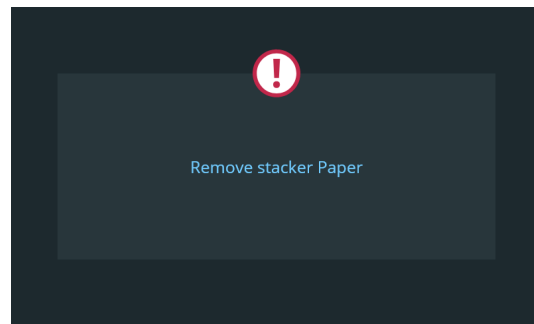
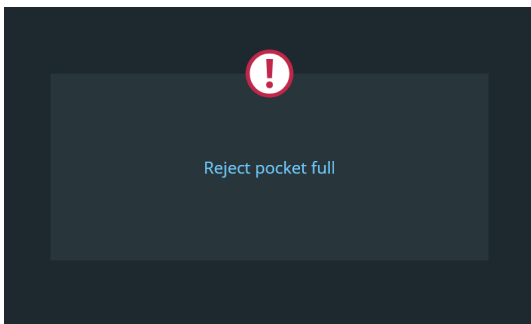
Please remove banknotes from the Hopper and place them again.

Please remove banknotes from the Reject Pocket.



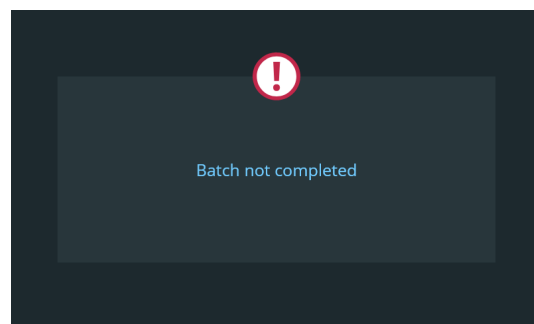
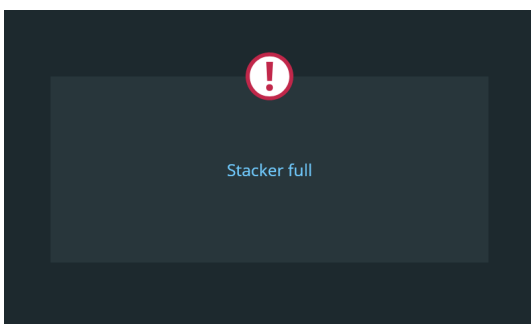
The Reject Pocket is full. Please remove banknotes from the Reject Pocket.

Please remove banknotes from the Stacker.



The Stacker is full. Please remove banknotes from the Stacker.

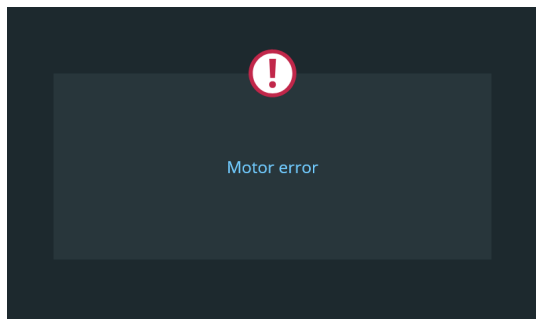
The counted quantity does not reach the preset number. Please check again.



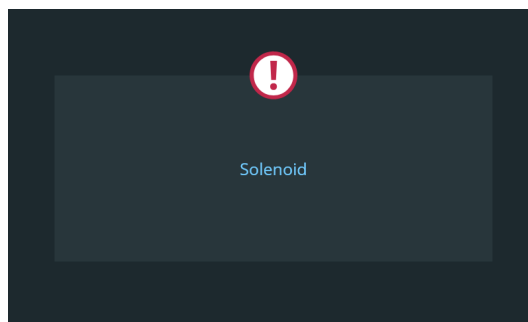
Error Type - Others

A motor error has occurred when switching on the power.

Please make sure the encoder is working correctly. If the error insists, please contact Masterwork Automodules services.

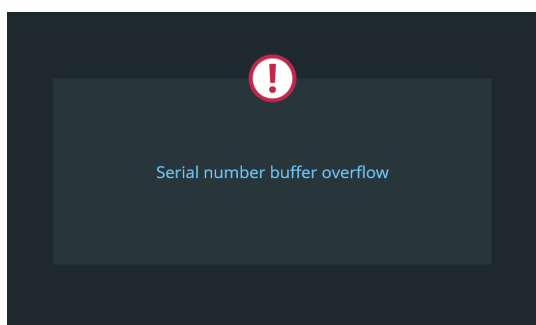


Please check for banknotes jammed in the Lower Bill Path. Remove jammed notes and run the machine again.

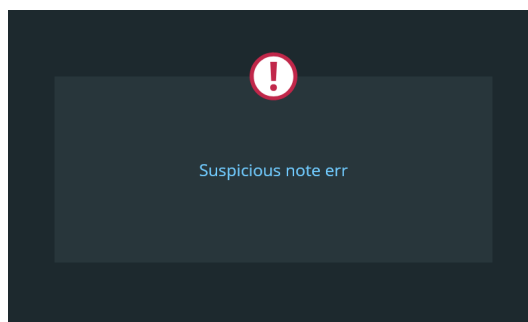


The buffer memory for serial number recognition is 1000 pieces.

Please press **C** to clear the record of serial numbers. Remove notes from the Stacker to start the device processing again.



Banknotes rejected due to suspicious note detection failure.



SETTINGS

Adjusting and Verifying Basic Settings

STEP 1

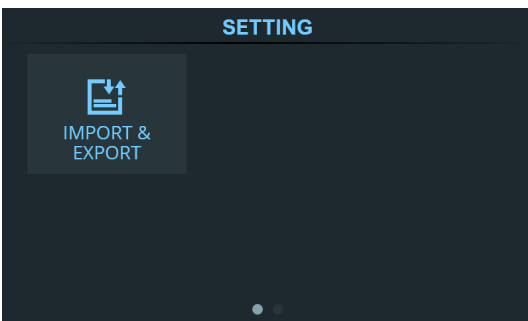
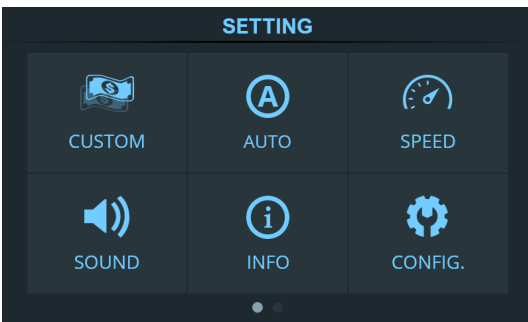
Access **Settings** by tapping the gear icon on the left pane of screen.



STEP 2

Tap to select setting options on the display, or press **C** to return to the main screen.

Slide left / right on the screen for the next page.



STEP 3

There are seven configurations in **Setting**. Select to adjust settings accordingly.



Custom Mode Setting

Turn certain counting features ON / OFF.



Auto On/Off

Turn specific functions to AUTO or MANUAL, such as printing and saving data.



Speed Options

Adjust processing speed by levels.



Sound Settings

To turn ON / OFF sound effects.



Information

Check information such as hardware information and software version.



Config.

Requires password to enter (default password 111111). Designed to protect critical configurations.

Import & Export

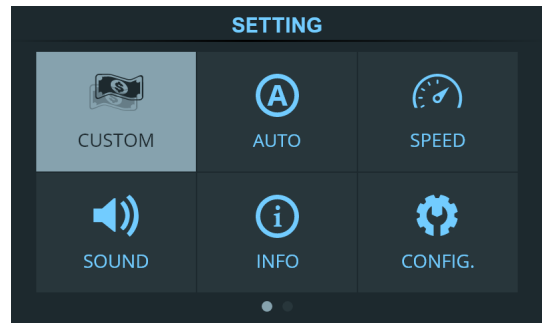


Import / export user configurations, reports, serial numbers, and debug information to / from a connected flash drive.

Custom Mode

STEP 1

Tap to select  **Custom.**

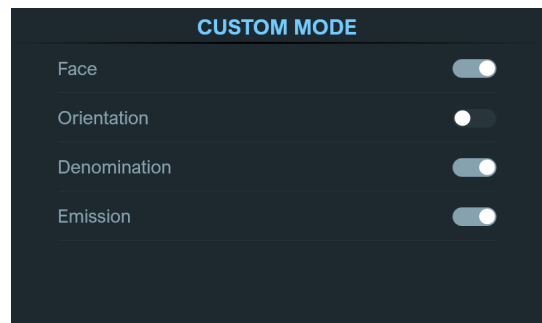


STEP 2

This mode allows users to enable/disable specific counting functions. They will not appear on the display during operation.

Tap on the switch to enable or disable the function.

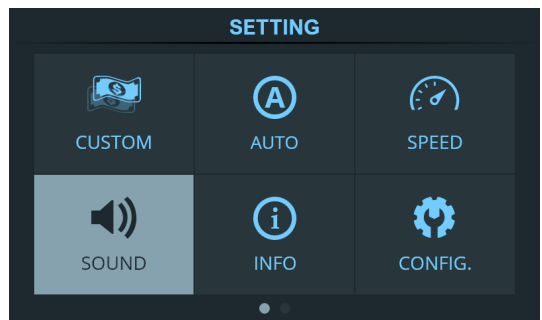
Once selections are made, press **C** to return to the previous menu.



Sound Settings

STEP 1

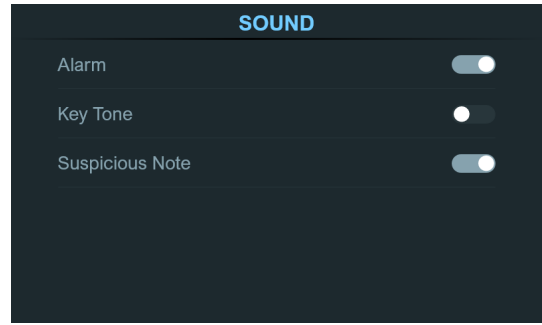
Tap to select  **Sound.**



STEP 2

Toggle the switch to enable/disable each options.

Press **C** to return to the previous menu.

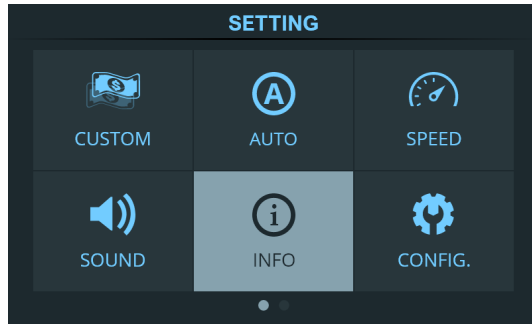


Information

Check information such as hardware information, software version, MAC, IP, and so on.

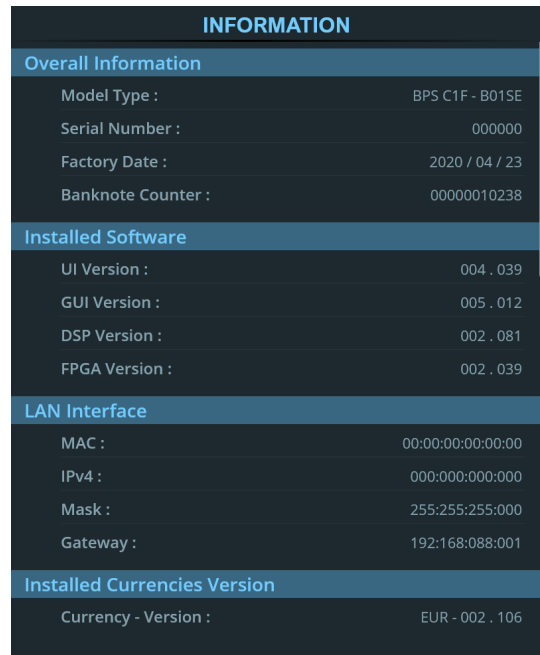
STEP 1

Tap to select  **Info.**



STEP 2

Tap the information bars view selected info.

A screenshot of the 'INFORMATION' screen. It displays system details in a list format, grouped into sections: Overall Information, Installed Software, LAN Interface, and Installed Currencies Version. The title 'INFORMATION' is at the top.

Overall Information	
Model Type :	BPS C1F - B01SE
Serial Number :	000000
Factory Date :	2020 / 04 / 23
Banknote Counter :	00000010238


Installed Software	
UI Version :	004 . 039
GUI Version :	005 . 012
DSP Version :	002 . 081
FPGA Version :	002 . 039

LAN Interface	
MAC :	00:00:00:00:00:00
IPv4 :	000:000:000:000
Mask :	255:255:255:000
Gateway :	192:168:088:001

Installed Currencies Version	
Currency - Version :	EUR - 002 . 106

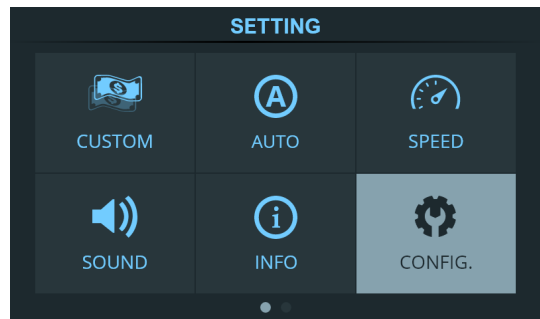
Configurations

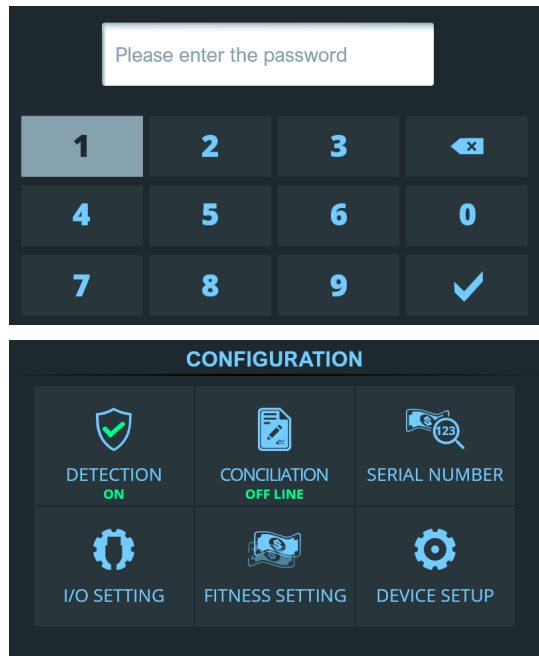
Tap to select  **Config.**

Enter the default password 111111 in the field box with numeric keys, then tap  blue tick or press ► **Start** button to confirm.

Configurations menu:

- **Detection**
- **Conciliation**
- **Serial Number**
- **I/O Setting**
- **Fitness Setting**
- **Device Setup**





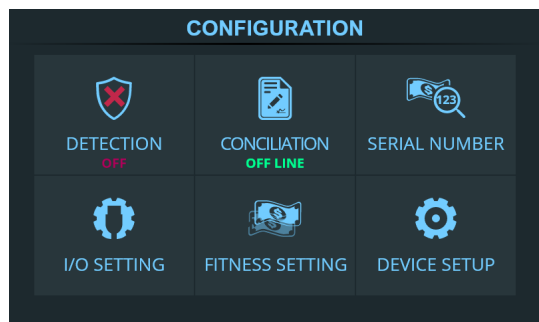
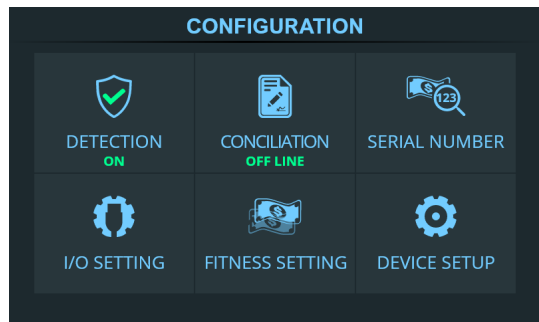
Detection

Count notes with counterfeit detection or with discrimination only. Detection is turned by default.

STEP 1

Tap on **Detection** to turn this feature on or off.

- **Detection Off:** Counts only the quantity and value of banknotes.
- **Detection On:** Counts banknotes with counterfeit detection and delivers suspicious banknotes to the Reject Pocket.



STEP 2

The status of **Detection** is indicated on the left pane of the main display.

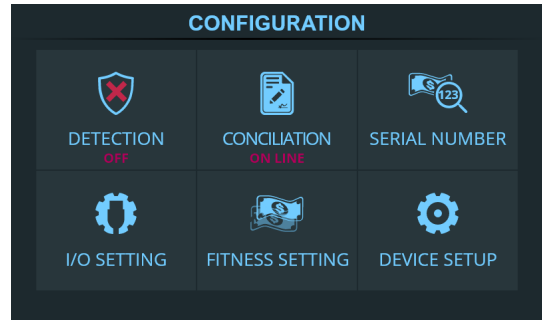
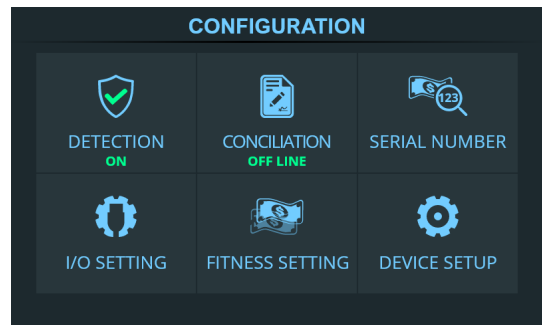
- Icon green tick indicates **Detection** is on.
- Icon with red cross indicates **Detection** is off.



Conciliation

Tap on **Conciliation** to toggle between on/off.

Switch on this feature if the machine is connected to a teller software application. Please make sure the teller software is fully integrated by its developers.



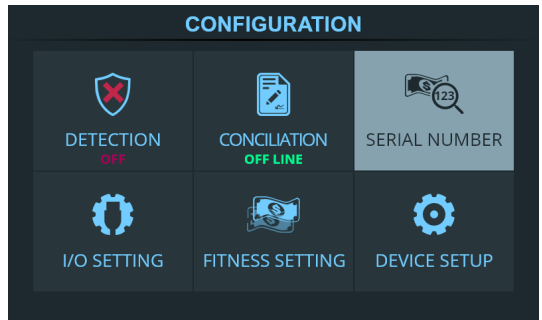
Serial Number

Choose a desired Output Mode for printing out banknote serial numbers. Default: Normal Printout)

Tap the **SERIAL NUMBER** to bring up the options.

There are three configurable options, as shown below:

- **Output Mode** : To configure printing/saving serial number of counted banknotes.
- **Output Format** : To select a desired output format of counted banknotes.
- **SN Image Format** : To select the image format from Pre-process or Raw.



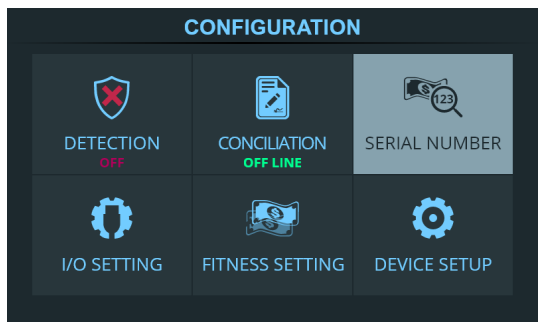
Output Mode

Choose a desired **Output Mode** for printing out serial numbers of banknotes. Mode is set to **Normal Printout** by default.

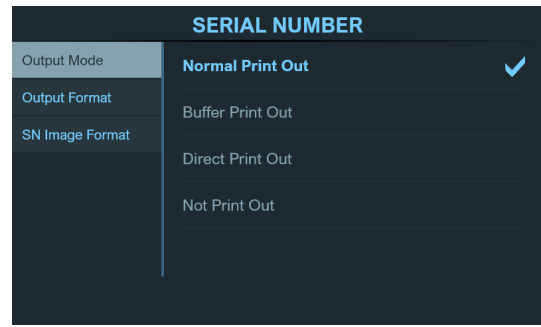
Tap on the **Output Mode** tab to see its options.

Tap to select one of the four options according to your preference.

- **Normal Print Out** : Print out the serial numbers of counted banknotes and save the record in the buffer memory. The record can be printed out in 2 receipts, and limited to 1000 banknotes.
- **Buffer Print Out** : Saves record in the buffer memory. Users need to manually print the receipt with the **PRNT** button.



- **Direct Print Out** : Print out receipts with serial number in real time, without limitation to numbers of banknote. Counting results will not be saved in buffer memory.
- **Not Print Out** : Proceed without printing.



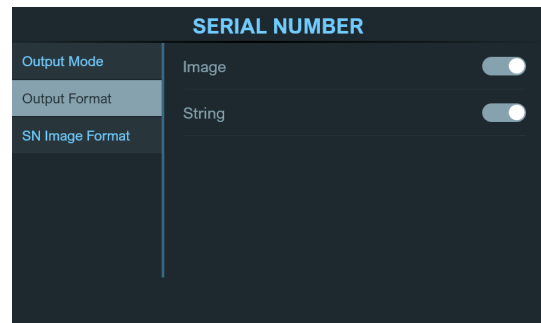
Output Format

Choose a desired Output Format for printing out serial numbers of banknotes.

Tap on **Output Format** tab to see its options.

Tap the switches to enable/disable options according to your preference.

- **Image Enabled**: Prints with images of serial numbers.
- **String Enabled**: Prints with strings of serial numbers.
- **Image+String Enabled**: Print with images and strings of serial numbers.



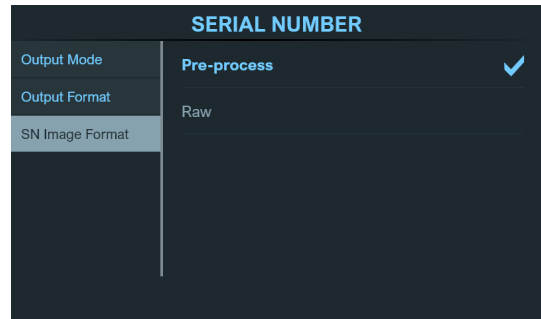
SN Image Format

Choose a desired **SN Image Format** for serial numbers of banknotes

Tap on **SN Image Format** tab to see its options.

Tap to select one of the two options according to your preference.

- **Pre-process**: Print images compressed by software.
- **Raw**: Print uncompressed images.

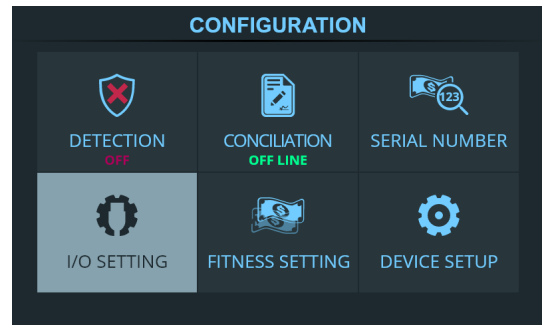


I/O SETTING

Configure connected accessories such as printers or barcode readers.

Tap to select **I/O SETTING** to bring up the sub-menu.
There are three configurable options, as shown below:

- **Printer 1**
- **Printer 2**
- **Barcode Reader**

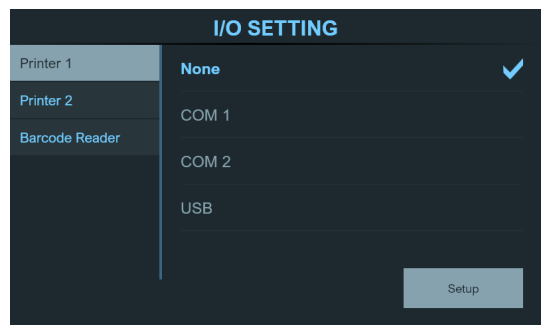


Printers and Barcode Reader

Tap to select **COM1/COM2/USB**, then tap on **Setup** for configurations.

There are four configurable options, as shown below:

- **Paper Width**
- **Output Format**
- **Baud Rate**
- **Type**




Paper Width

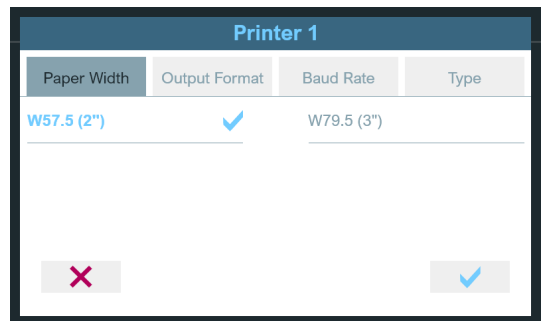
Tap on the **Paper Width** tab to setup the paper size of connected printers.

Select one of the two configurable options, as shown below.

W57.5: 2-inch paper

W79.5: 3-inch paper


Tap  blue tick to confirm and return to previous menu.

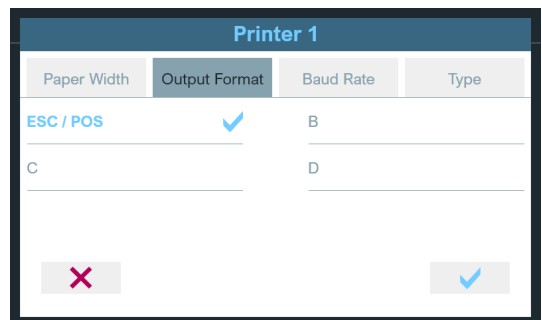


Output Format

Tap on the **Output Format** tab, then select one of the four configurable options, as shown below.

- **ESC/POS:** Apply to ordinary printers.
- **B:** For casino use.
- **C:** For casino use.
- **D:** For casino use.

Tap  blue tick to confirm and return to previous menu.




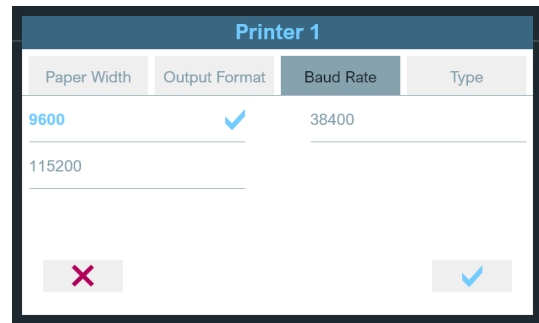
Baud Rate

Tap on the **Baud Rate** tab to setup printers' baud rates for printing out receipts.

Select one of the four configurable options, as shown below.

- **9600**: 9600 bps
- **38400**: 38400 bps
- **115200**: 115200 bps

Tap  blue tick to confirm and return to previous menu.




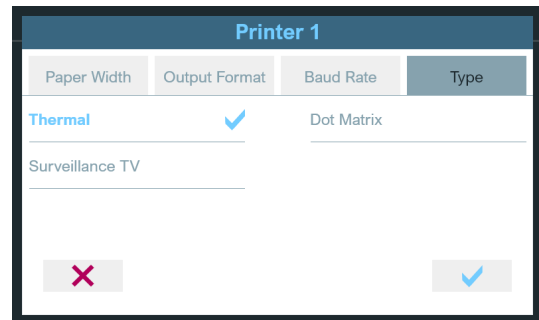
Type

Tap on the **Type** tab to select the type of connected printers.

Select one of the three configurable options, as shown below:

- **Thermal**
- **Dot Matrix**
- **Surveillance TV**

Tap  blue tick to confirm and return to previous menu.

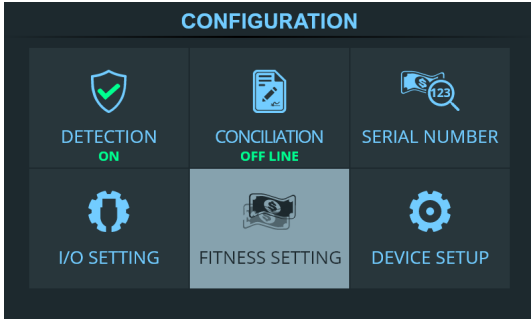


FITNESS SETTING

The sensitivity level is adjustable in Fitness Mode.

STEP 1

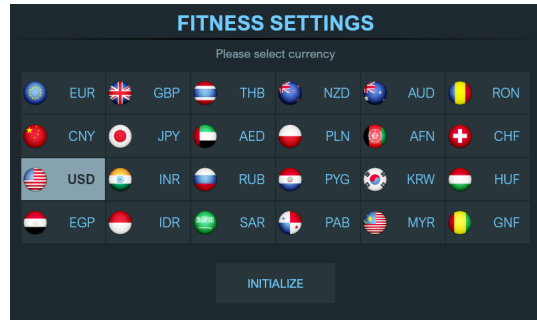
Tap on **Fitness Setting** to view options.



STEP 2

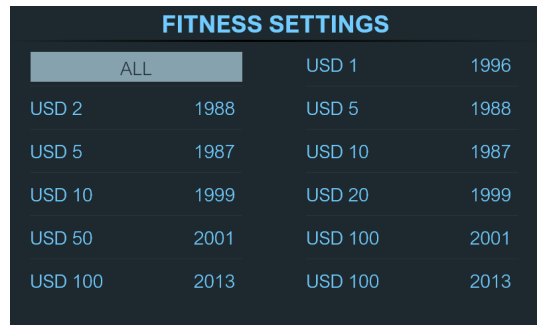
Tap to select a currency for adjustment.

You also have an option to initialize settings to factory default by tapping the **Initialize** on the bottom.



STEP 3

Tap to select a desired denomination.

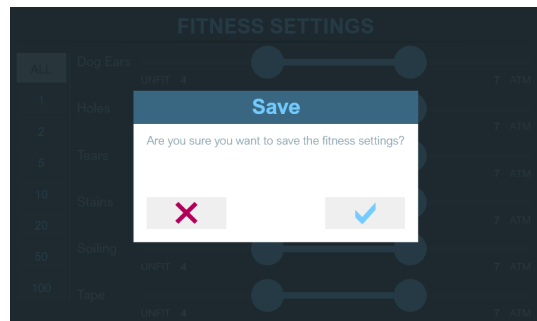


STEP 4

For each criteria, drag the left dot left/right on the bar to set the minimum limit, and right dot to set the maximum limit.

Closer dots indicate stricter detection, which may end up with higher reject rate.

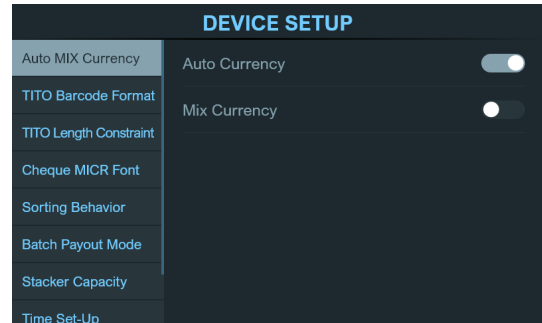
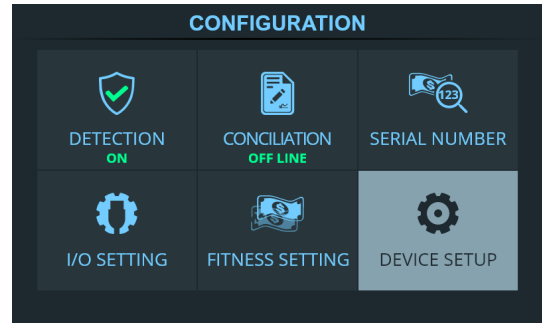
Exit the menu by pressing the **C** button to return to the previous page. Tap the blue tick if you would like to keep your modifications. Otherwise, tap the red cross.



Device Setup

Tap to select **Device Setup** to bring up the sub-menu. Configurable options are shown below:

- **Auto MIX Currency**
- **TITO Format**
- **TITO Length Constraint**
- **Cheque MICR Font**
- **Sorting Behavior**
- **Batch Payout Mode**
- **Stacker Capacity**
- **Time Set-Up**
- **Language**
- **Denomination Options**
- **FSN**
- **Software Update**
- **Initialize Operator Settings**

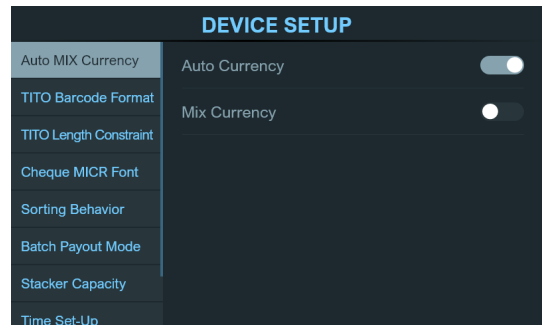


Scroll up/down the left pane and select a tab.

Auto MIX Currency

Tap on the **Auto MIX Currency** tab to enable/disable features.

- **Auto Currency:** Counts only the first detected currency and deliver the rest to the Reject Pocket.
- **MIX Currency:** Counts all currencies within the installed currency software.



TITO Format

Tap on the **TITO Format** tab and enable/disable formats to meet your requirements.



TITO Length Constraint

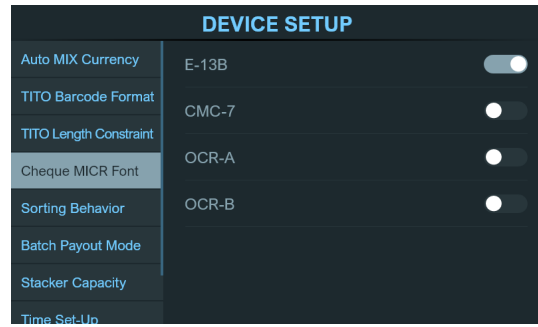
Tap on the **TITO Length Constraint** tab, then tap the numbers to bring up numeric keys for entering minimum and maximum constraints.

Confirm with blue tick when done.



Cheque MICR Font

Tap on the **Cheque MICR Font** tab and enable/disable fonts to meet your requirements.

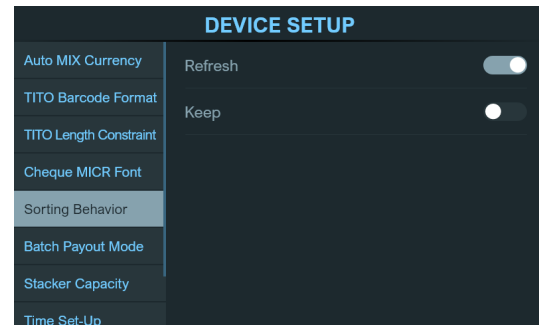


Sorting Behavior

Tap on the **Sorting Behavior** tab and enable/disable behaviors to meet your requirements.

Select **Keep** to continue the same sorting behavior even after removing banknotes from the Stacker, for example continue sorting in the same orientation.

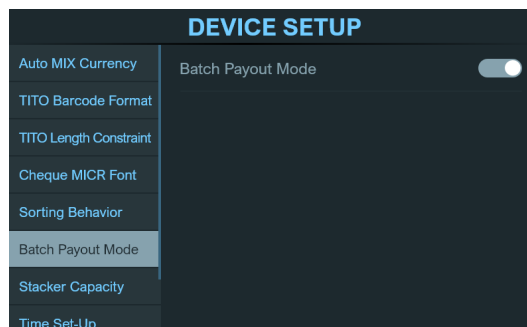
Select **Refresh** to start a new sorting behavior each time after removing banknotes from the Stacker, for example sort by the first detected orientation of each new batch.



Batch Payout Mode

Tap on the **Batch Payout Mode** tab and enable/disable mode to meet your requirements.

This function allows users to accumulate batch amount when enabled.



Stacker Capacity

Tap on the **Stacker Capacity** tab. This is for setting the capacities of the Reject Pocket and the Stacker. The capacity may vary according to the quality of notes.

Tap the numbers to bring up numeric keys for entering capacities, and confirm with blue tick when done.



Time Set-Up

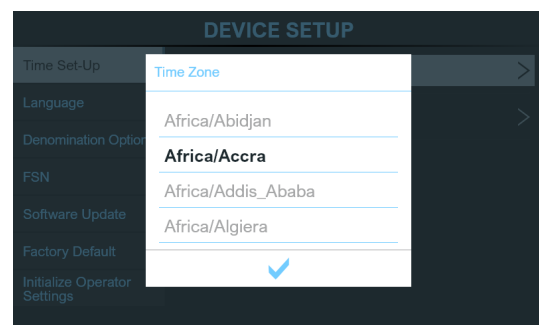
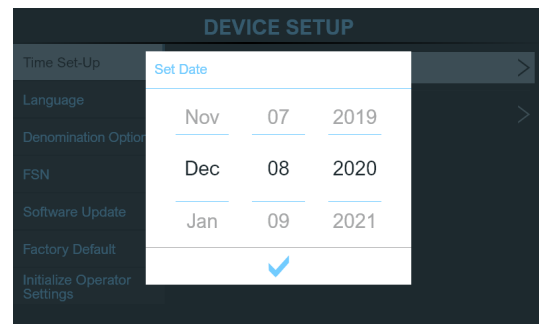
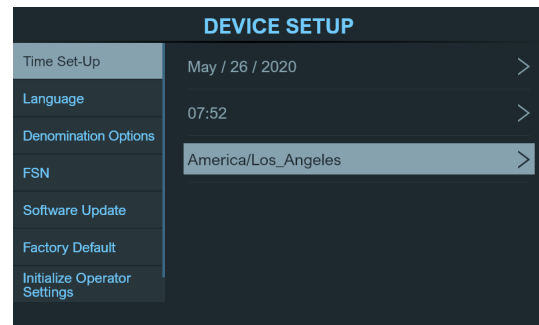
Tap on the **Time Set-up** tab.

Select the date to bring up the date picker and make changes accordingly.

Select the time to bring up the time picker and make change accordingly.

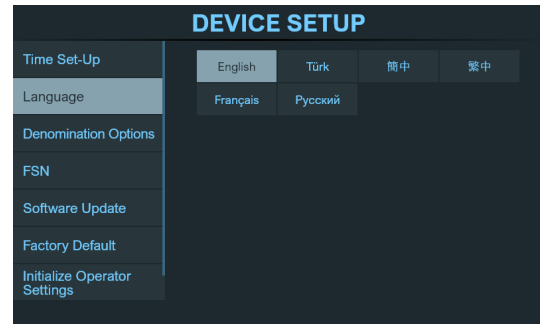
Select the time zone to bring up the time zone picker and make change accordingly.

Tap on the blue tick to confirm, or press the **C** button to return to previous menu.



Language

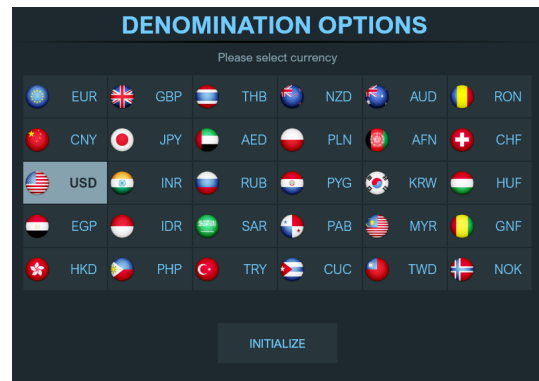
Tap on the **Language** tab, and your preference for the display.



Denomination Options

Tap on the **Denomination Options** tab, and select a currency.

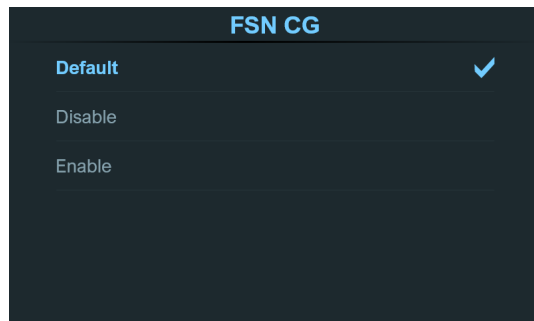
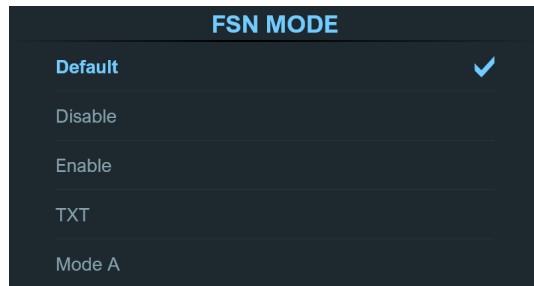
Set a limitation to certain denominations by issue year, and the excluded banknotes will be delivered to the Reject Pocket.



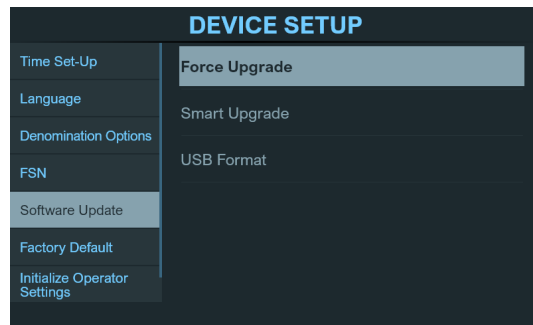
FSN is a special file format only required by Chinese market. It saves serial numbers with OCR strings and images in FSN format.

Tap on **FSN Mode/Form** to expand the list, then select **FSN Mode/FSN Form/FSN CG** to bring up options for each category.

Tap to selection an option, then press the **C** button to return to the previous display.

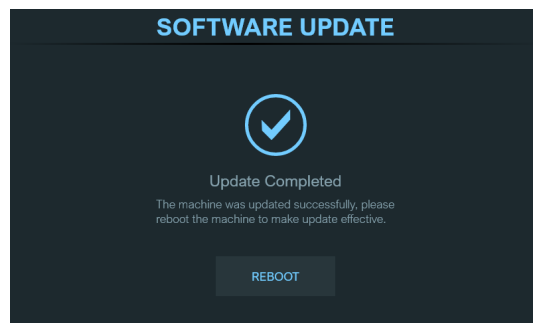
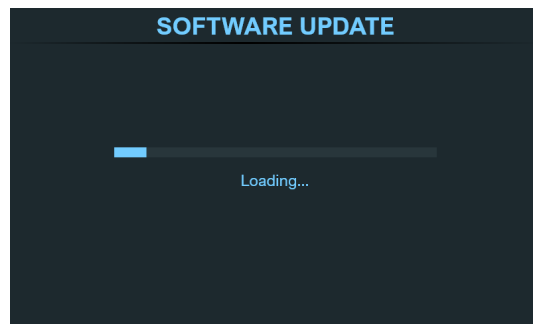


Software Update



Users can upgrade software versions via USB or Ethernet connection.

- **Force Upgrade:** Upgrades software anyway, even if the installed software is of newer version than the one in the USB.
- **Smart Upgrade:** Compares software versions prior to upgrading. Only upgrade to the newer version.



Initialize Operator Settings

Tap to restore original factory settings.

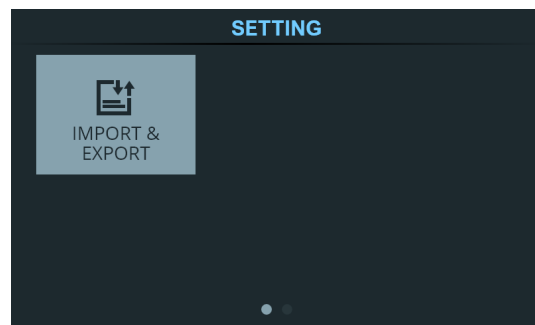
Select the blue tick to restore, or the red cross to exit.



Import & Export

Step 1

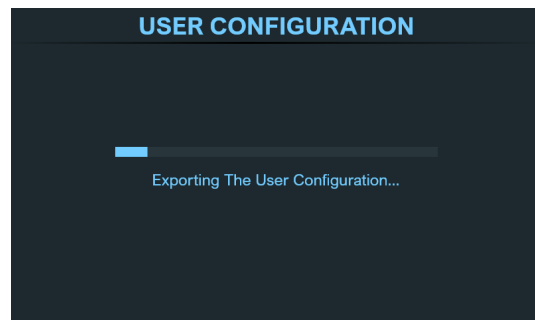
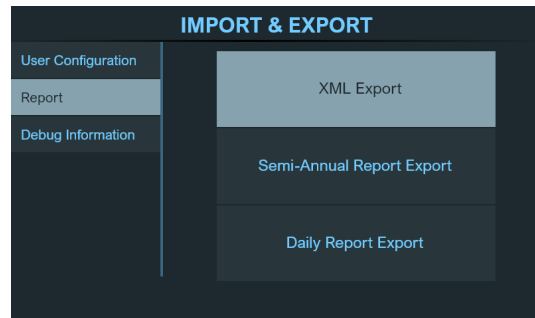
Tap  **Import & Export** to initiate.



Step 2

Tap the following tabs on the left pane of the display to select import/export options.

- **User Configuration:** Import or export user configurations.
- **Report:** Export XML reports, semi-annual reports, and daily reports.
- **Serial Number:** Export in standard or FSN format.
- **Debug Information:** Export information on debugging.



Opening the Bill Path



WARNING

Procedures below are only authorized to our service professionals. Otherwise voids the warranty.



CAUTION

- DO NOT attempt to open the **Bill Path** while the device is still in operation.
- Open the **Bill Path** only when banknotes are jammed in this area, as prompted by the error message displayed on the LCD screen, during a counting operation and only when device is halted.
- Turn the power off and unplug the power cord before cleaning/maintenance.

Opening the Upper Bill Path



Opening the Lower Bill Path



Cleaning

Occasionally clean the NC7500 with the following steps:

Exterior

STEP 1: Prepare Simple Green concentrate or a mixture of gentle kitchen-use detergent (one that does not contain abrasive powder, or strong chemicals such as acid or alkaline). Dilute 1 cup of detergent with 5 cups of water.

STEP 2: Soak the sponge with the detergent dilution for a couple of minutes.

STEP 3: Squeeze excess dilution out of the sponge.

STEP 4: Wipe the machine cover with sponge in a circular motion and make sure not to let any excess liquid drip into the interior of machine.

STEP 5: Rinse the sponge with clean running water.

STEP 6: Wipe the cover with a clean sponge.

STEP 7: Wipe the surface again with a dry, soft, and lint-free cloth.

STEP 8: Wait until the cover is dried completely and remove any fiber.

Bill Path

STEP 1: Open the Upper Bill Path

STEP 2: Gently wipe the Bill Path. Or dust the Bill Path with a brush, a compressed air can, or a dry, soft, and lint-free cloth.

STEP 3: If stain or debris remains, moisten a soft lint-free cloth with water, or with a 50-50 mixture of Isopropyl Alcohol and water that does not contain impurities.

STEP 4: Squeeze out as much of the liquid as you can.

STEP 5: Wipe the Bill Path and the sensor surface again. Do not let any liquid drip into the device.

STEP 6: Repeat Step 1-5 to clean the Lower Bill Path.



NOTE

Avoid spraying any cleaner directly onto NC7500 or any of the sensors, and the Bill Paths are dry before closing it.

SPECIFICATION

FEED SYSTEM	:	Roller Friction System	
COUNTERFEIT DETECTION	:	Dual CIS (IR Reflection and Transmission) Magnetic UV Thickness Sensor.	
COUNTING SPEED	:	Piece Count	1600 Notes/Min.
	:	Denomination Count	1600 Notes/Min.
	:	Serial Number Count	1200 Notes/Min.
	:	Fitness Count	1200 Notes/Min.
AVAILABLE CURRENCIES	:	USD, EUR, GBP, LOCAL (Optional), up to 32	
DENOMINATION DETECTION	:	Contact Image Sensor	
CAPACITY	:	500 Circulated Banknotes (Hopper) 250 Circulated Banknotes (Stacker) 100 Circulated Banknotes (Reject Pocket)	
COUNTABLE NOTE SIZE	:	60 x 85 x 0.08mm ~ 100 x 190 x 0.12mm	
DISPLAY	:	5" LCD Touch Display	
POWER SUPPLY	:	AC 100 ~ 240V, 50/60Hz	
FUSE SPECIFICATION	:	3.15A/250VAC	
POWER CONSUMPTION	:	Max. 150W	
DIMENSIONS (W X D X H)	:	12.9" x 12.9" x 13.7" 330 x 330 x 350mm	
NET WEIGHT	:	39.6 lbs. 18 Kgs	
INTERFACE	:	LAN x 1 RS 232 x 2 Mni USB 2.0 x 1 (PC Connection)	

Interface)
USB (Type A) x 1 (Software Update, data
output, data export)

OPTIONAL ACCESSORIES

:

Remote Display
Thermal Printer
(Please contact MASTERWORK
AUTOMODULES for recommended
printers)
