

SC 8220 Currency Counter

User's Guide



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General Information

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Declaration of Conformity

We, SCAN COIN AB, Malmö, Sweden, declare under our sole responsibility, that the product in this manual, is in conformity with the following standards and/or other normative documents:

- EN 55022:2010+AC:2011
- EN 55024:2010+A1:2015
- EN 61000-3-2:2014
- EN 61000-3-3:2013
- EN 609501:2006+A11:2009+A1:2010+A12:2011+A2:2013

following the provisions of:

- LVD Directive 2014/35/EU
- EMC Directive 2014/30/EU

Environmental Compliance

Note

If the equipment contains batteries or accumulators, dispose of these separately according to local requirements.

WEEE Directive (valid in the EU only)

Waste Electrical and Electronic Equipment Directive 2002/96/EC.



Equipment marked with this symbol must be treated separately and in accordance with any local legislation requiring proper treatment, recovery and recycling of used electrical and electronic equipment.

RoHS

RoHS Restriction of Hazardous Substance Directive RoHS (EU) 2015/863.

Contact your SCAN COIN representative for further details.

FCC

Federal Communications Commission

- FCC Part 15 Subpart B, Class B.

Responsibility

The supplier of the equipment accepts no responsibility for injury or damage to personnel or equipment, if the equipment is altered in any way or used in a manner for which it was not intended at the time of delivery.

If the conditions for use of the equipment are changed, the supplier must be contacted or the declaration of conformity is invalidated.

Safety Precautions

This guide contains hazard information which **must** be read by all users. The hazard information is presented as a warning as follows:



WARNING
Risk of personal injury

Warnings indicate a potential hazard to the health and safety of users. They clearly state the nature of the hazard and how to avoid it. The warning symbols appear at their points of application in this guide.

Caution!

Cautions indicate a hazard to the machine, but not a danger to personnel. They clearly state how to avoid the hazard. They appear at their points of application in this guide.



WARNING
Risk of electric shock

Lethal voltages exist in the machine when connected to mains power. Make sure you disconnect the power cord before cleaning or servicing the machine.



WARNING
Risk of electric shock

The machine is of metal construction and must therefore always be earthed to the supply. Ensure that both the plug on the supply lead and the supply source are earthed. This is a requirement for this type of equipment and if not adhered to will contravene the national and international standards of Health and Safety in the work place.



WARNING
Risk of jamming

This machine contains moving parts and sharp edges. Always be careful. Do not touch the components inside the machine while it is running.



WARNING
Risk of entanglement

Keep long sleeves, ties, necklaces and long hair that can trigger the auto start sensor away from the machine. If the auto start function is enabled, the machine may start.



Installation

WARNING

Risk of electric shock

The machine is of metal construction and must therefore always be earthed to the supply. Ensure that both the plug on the supply lead and the supply source are earthed. This is a requirement for this type of equipment and if not adhered to will contravene the national and international standards of Health and Safety in the work place.



WARNING

Risk of tipping

Follow the Safety Precautions.



The machine must be installed by an authorised SCAN COIN representative.

Note

The machine must be protected by a fuse or a circuit breaker in the electrical circuit.

Please also note the following when installing the machine:

- Operating temperature 15–35 °C
- Operating humidity 30–80% R.H

Do not place the machine close to any radiators. Make sure there is some free space around the machine to allow the air to circulate.

The socket-outlet shall be installed near the equipment and shall be easily accessible.

If the plug on the supply lead to the machine has a fuse, make sure it has the correct rating in amps.

Use the supplied power cord at a properly grounded outlet.

The machine is exclusively for indoors usages, do not use it outdoors.

Do not disassemble machine. If there are any problems with operations, please contact the authorized distributor.

Do not exposes device to liquids, extreme humidity moisture.

Avoid operating device in environments with strong magnetic and electromagnetic fields. For example, keep device away from magnets, electrical appliances.

Although this machine has been tested and complies with the national and international standards/regulations, it is recommended that no equipment which generates a high level of electromagnetic interference (EMI) or vibration is placed close to the machine.

Positional References

Unless stated otherwise, positions and directions such as left, right, upper, lower, rear, clockwise and counter-clockwise are given with respect to the machine when viewed from the front.

Machine Label

The label below is an example of the information available on the machine.



- 1 Machine type
- 2 Supply voltage/Frequency/Current consumption
- 3 Serial No.
- 4 Year and place of manufacture
- 5 FC-symbol*
- 6 CE-symbol
- 7 RoHS*

* See ["Environmental Compliance" on page 1.](#)

Introduction

The SC 8220 is a compact desktop currency sorter, light to carry and easy to operate. By touching the icons on the screen or the operator buttons beside the screen you can select how to perform the counting and sorting of banknotes.

Notes to be counted are placed on the hopper on top of the machine. As the notes are fed into the machine they are counted and then collected onto the stacker pocket at the bottom front. Rejected notes are diverted onto the reject stacker pocket.

Before using the machine, please carefully read this manual to fully understand how the machine is safely operated and how to avoid damaging the machine. Keep the manual in a safe place for future use.



Unpacking

Please check whether the appearance of the machine is in good condition and whether all of the accessories are available. Inside the package there shall be the following.

SC 8220



Quick guide



Cleaning brush



Fuse



Power cable



Print cable



USB cable



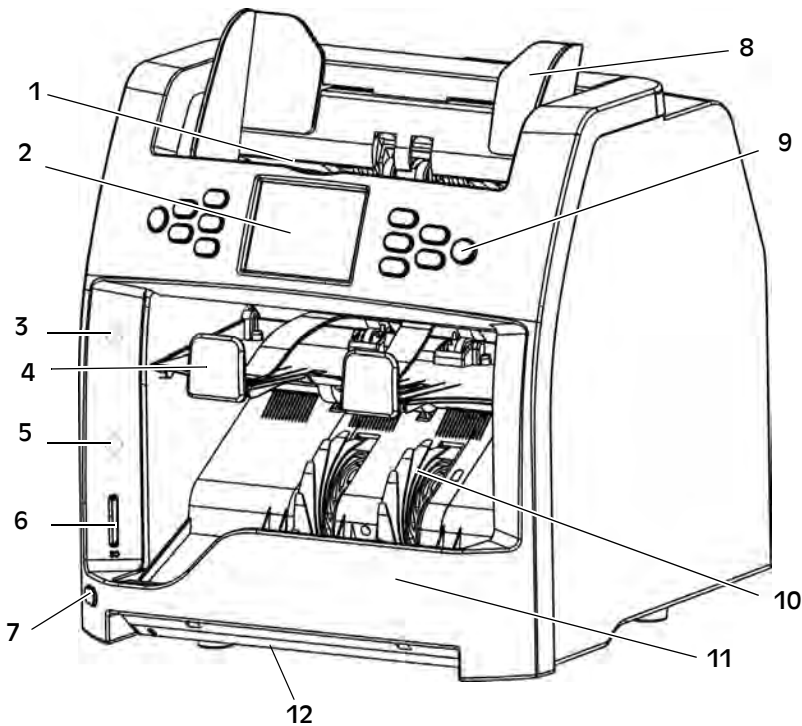
Dust cover



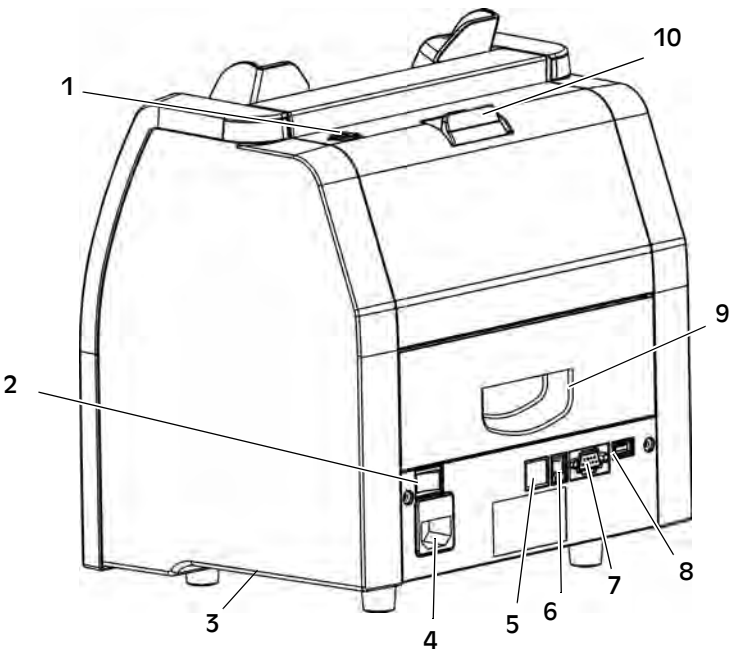
CD ROM with driver



Machine Part Terminology



- | | |
|-----------------------------------|-----------------------------|
| 1 Hopper | 7 UV switch |
| 2 3.2" Color TFT LCD touch screen | 8 Note guide |
| 3 Red indicator for reject pocket | 9 Control panel |
| 4 Reject pocket | 10 Banknote receiving wheel |
| 5 Blue indicator for stacker | 11 Stacker |
| 6 SD card slot | 12 External UV |



- | |
|-----------------------------------|
| 1 Adjusting screw |
| 2 Power switch |
| 3 Side carrying grip |
| 4 Power connection (with fuse) |
| 5 Port for network |
| 6 Port for printer |
| 7 RS232 port for external display |
| 8 USB port for connection to PC |
| 9 Lower note path door |
| 10 Upper note path opening |

Control Panel Overview



Button	Description
START	Press to start counting. Also served as selection confirmation in MENU
C	Press to clear the number of counted banknotes. Press to turn off the batch function. During selection in MENU, press C -button to set corresponding setting to default value.
+1/+10	Press to increase the batch number by 1 (short press) or 10 (long press).
CUR	Currency and currency mode selection
BATCH	Press to turn Batch mode on/off. Press for setting of batch number.
PRINT	Press for a print out/receipt.
MODE	Press for sorting mode selection: Mix, Single, Face(S), Orient(S), F&O(S), VER(S)
ADD	Press to turn ADD mode on/off. Also served as navigation key UP .

Button	Description
DISPLAY	Press to view the count result. Also served as navigation key DOWN
MENU	Press to enter/step back in MENU navigation.

Display Overview



- | | |
|----------------------|--------------------------|
| 1 Currency selection | 8 SD card icon |
| 2 Sorting mode | 9 Date and time |
| 3 ADD mode | 10 Auto/manual operation |
| 4 Batch | 11 Reject quantity |
| 5 Counting result | |
| 6 Serial number | |
| 7 Network icon | |

Operation

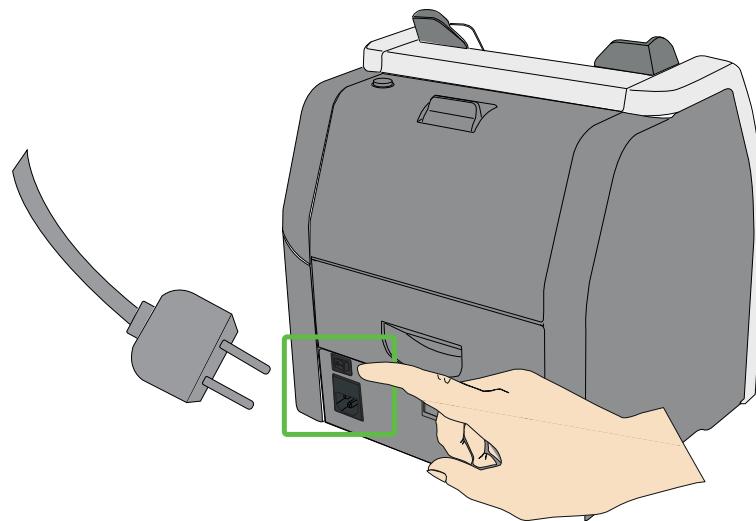


WARNING
Risk of jamming!

Follow the ["Safety Precautions" on page 2](#)

Getting started

- Connect the power cable to the machine and the power outlet.
- Press the Power Switch button to I to switch on.



- After a short boot-up and self-test, machine enters the main menu.

Note!

Images are only examples and can be different depending on the setup.

Switching Off

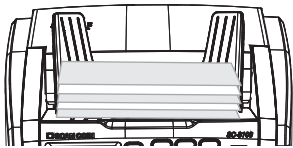
- Confirm that all counting results are saved.
- Switch off the machine by setting the main switch to off (0).

Inserting Banknotes

Avoid counting wet, dirty or spoiled banknotes.

- Check for foreign matter mixed with the banknotes for example paper chips, rubber bands, clips and dust.
- Straighten the folds or corners of the banknotes before insertion.
- Put the banknotes on the hopper as shown below.

CORRECT



INCORRECT



- Adjust the note guides according to the longest banknote in the stack.

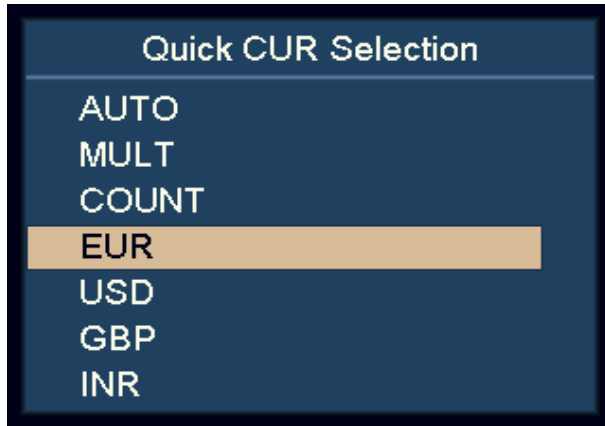
Selecting Currency

Selecting a preset currency



- Press **CUR** the following are listed on the display:
 - **AUTO** (Automatic recognition mode),
 - **MULT** (Multi-currency mode),
 - **COUNT** (Count mode), and the available currencies are shown sequentially on the upper left corner of the display.
- Select the desired currency and start processing the banknotes.

Quick Currency Selection



- a) Press and hold **CUR**.
 - All the available currencies are listed on the display.
- b) Use **DISPLAY** and **ADD** to highlight the desired currency.
- c) Press **START** to confirm the selection.

Automatic recognition mode (AUTO)

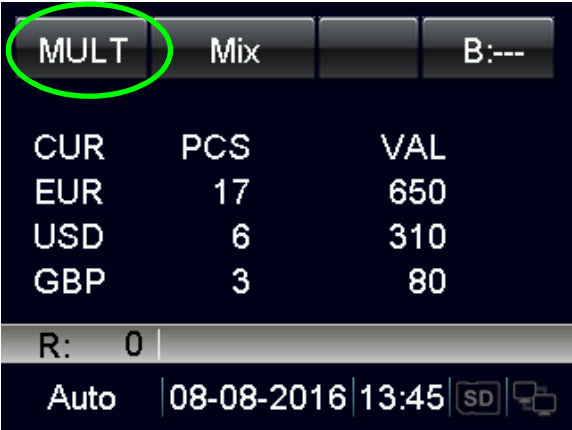



The machine recognizes the currency according to the first note, provided that the currency is ON in the AUTO CUR Selection menu.

Note

For further setting, please refer ["Automatic Recognition Currency Selection " on page 25.](#)

Multi-currency mode (MULT)



MULT	Mix	B:---
CUR	PCS	VAL
EUR	17	650
USD	6	310
GBP	3	80
R: 0		
Auto 08-08-2016 13:45 SD 		

The machine can process three currencies simultaneously.

Note

For further setting, please refer ["Multi-Currency Configuration " on page 26.](#)

Count Mode (COUNT)



COUNT		B:---
PCS		26
R: 0		
Auto 08-08-2016 13:45 SD 		

The device counts the number of piece with no limitation of currency.

User can turn on/off/adjust the detection setting under COUNT mode setting in MENU.

Note

For further setting, please refer ["Count Mode Setting" on page 17.](#)

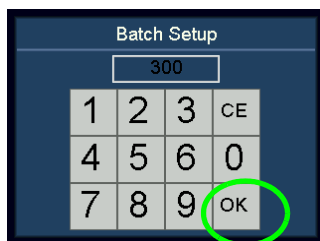
Batch Counting

How to count a preset number of banknotes:

- a) Press **BATCH** or **+1/+10** to select banknote batch value by pieces or by preset values.

Batch Counting by entering the desired batch value

- a) Press **BATCH**.



- b) Input the desired batch value by using the touch screen.
The largest batch value can be set to 999.
- c) Confirm with “OK” or press **START**.

The preset batch value is shown on the upper right corner of the display.

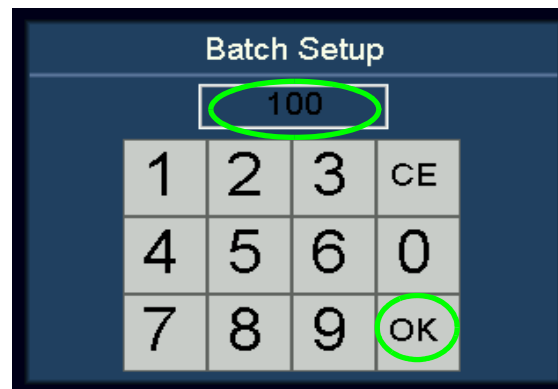


- d) Increase the batch value by 1 by pressing **+1/+10**.

Press and hold **+1/+10** to increase by 10.

When counting, the machine stops once the counted banknotes reach the batch quantity.

Batch Counting by preset values



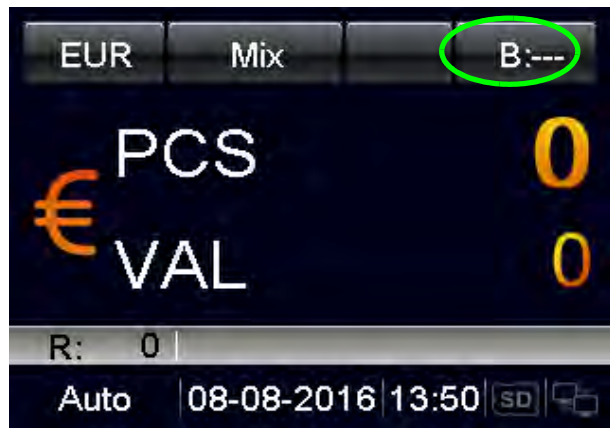
- a) Press **BATCH**.
- b) Then press **BATCH** multiple times. 100, 50, 20, 10, 0 are shown sequentially on the display.
- c) Select the desired banknote preset batch value. Press “OK” or **START** to confirm the batch value and go back to the main menu.

If user has no operation in 10 seconds or feeds in the banknotes, the batch setting will be saved.

When counting, the machine stops once the preset batch value is reached.

Cancelling the Batch Function

- When switch to "—", the batch preset value is disabled.
- Press **BATCH** to cancel the batch function.



ADD Mode

In ADD mode, all counting results are accumulated.

- Press **ADD** to switch between ADD mode on/off.



When ADD mode is turned on, "ADD" appears on the top line of the display.

When ADD mode is turned off, "ADD" disappears on the display.



Sorting Modes

How to count banknotes with different sorting functions.

- a) Press **MODE** to select the desired Sorting Mode.
The selected Sorting Modes are shown sequentially next to the currency code on the top line of the display. There are Mix, Single, Face(S), Orient(S), F&O(S), and VER(S) modes.
- b) For Face(S), Orient(S), F&O(S), and VER(S) modes, user can switch between single (S) or mix (M) quickly on main screen by holding **MODE**-button.

Definition of the Sorting Modes

Mode	Description	
MIX	Mixed Value Mode	Count mix denomination of banknotes. Suspicious notes are sent to the reject pocket.
Single	Single Value Mode	Count banknotes based on the denomination of the first detected genuine note. Different denomination or suspicious banknotes are sent to the reject pocket.

Mode	Description	
Face(S)	Face Sorting Mode with Denomination Detection	Count banknotes based on the denomination and the face of the first detected genuine note. Different face, denomination, or suspicious banknotes are sent to the reject pocket. Note: Further Sorting function for the Face Sorting Mode can be set under the Setting Mode menu. Please refer to section " Face Sorting Mode " on page 20.
Orient(S)	Orientation Sorting Mode with Denomination Detection	Count banknotes based on the denomination and the orientation of the first detected genuine note. Different orientation, denomination, or suspicious banknotes are sent to the reject pocket. Orientation 1 and 3 are recognized as same orientation. Orientation 2 and 4 are recognized as same orientation. Note: Further Sorting function for the Orientation Sorting Mode can be set under the Setting Mode menu. Please refer to section " Orientation Sorting Mode " on page 20.

Mode	Description
F&O(S)	<p>Face and Orientation Sorting Mode with Denomination Detection</p> <p>Count banknotes based on the denomination, the face, and the orientation of the first detected genuine note. Different face, orientation, denomination, or suspicious banknotes are sent to the reject pocket.</p> <p>Orientation 1, 2, 3, or 4 is recognized as individual orientation.</p> <p>Note: Further Sorting function for the Face and Orientation Sorting Mode can be set under the Setting Mode menu. Please refer to section "Version Sorting Mode " on page 21.</p>
VER(S)	<p>Version Sorting Mode with Denomination Detection</p> <p>Count banknotes based on the denomination and the version of the first detected genuine note. Different version, denomination, or suspicious Banknotes are sent to the reject pocket.</p> <p>Note: Further Sorting function for the Version Sorting Mode can be set under the Setting Mode menu. Please refer to section "Orientation Sorting Mode " on page 20</p>

Counting Information

When banknote processing is done, press **DISPLAY** to see the detailed information of the accepted banknotes.

STATISTICS		
Deno	Pcs	Value
5	0	0
10	5	50
20	5	100
50	4	200
100	3	300
200	0	0
EUR	17	650

Reject Reason:

Press **CUR** or **MODE** to view the reject reason. If the machine rejects many banknotes, user can view the reject reasons by pressing **DISPLAY**.

Rejection List: (001)	
1	Image#1

Print Function

Printing the counting result using an external printer

- a) Connect the supplied print cable on the back of the machine.
- b) Connect the printer to the RS232 port of the print cable. And turn on the printer.
- c) Make sure the correct baud rate is set under **Print Setting** in **System Option**.
- d) Make sure the correct paper width is set under **Print Paper** in **System Option**.
- e) After the count, press **PRINT** to print.
- f) The printout lists the print title, currency code, transaction time, quantity of each denomination, subtotal, and total quantity and total value.

BDDEBA68onm		
EUR		
2016-07-04 14:56:07		
Deno	Pcs	Value
<hr/>		
EUR 10	3	30
EUR 20	3	60
EUR 50	2	100
EUR 200	1	200
<hr/>		
Total	9	390
<hr/>		
Deno	Serial NO.	
EUR 200	X05404701629	
EUR 50	S72361862998	
EUR 50	S72361862512	
EUR 20	RB1664959982	
EUR 20	RB1665015098	
EUR 20	RB1664961647	
EUR 10	EB4201196319	
EUR 10	PA6424153676	
EUR 10	PA6424153253	

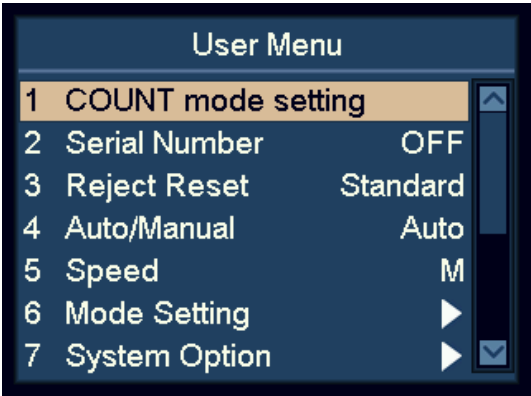
Note

For serial number printout, please refer to section “Serial Number Recognition.”

Setting Up SC 8220

Verifying and Adjusting Basic Settings

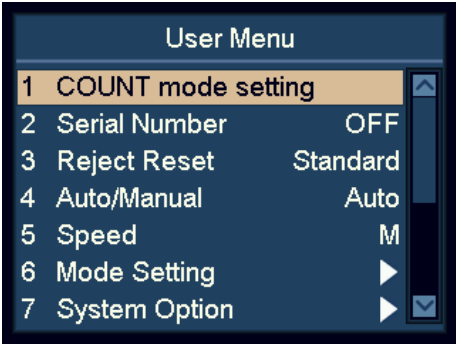
- a) Enter the User Menu
 - Press the Power Switch button. After a short boot-up and self-test, machine enters the main menu.
 - Press **MENU** and the machine enters **User Menu**.



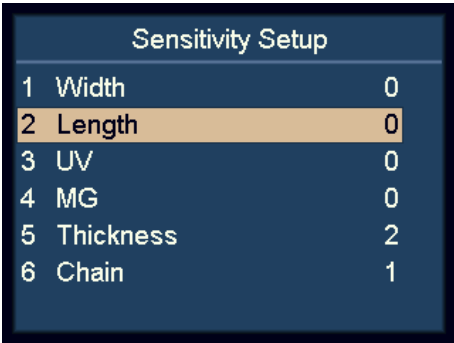
- b) Highlight and select an item using the navigation keys.
 - In the User Menu **ADD** and **DISPLAY** keys turn into navigation keys.
 - Press **ADD** for up and **DISPLAY** for down
- c) Press **START** to confirm the selection.
- d) Press **MENU** to exit User Menu and go back to the main menu.

Count Mode Setting

- a) Highlight the “1 COUNT mode setting” item.



- b) Press **START** to confirm the selection.
- c) Select the desired detection sensitivity parameter by using navigation keys, press **START** to confirm.



- d) Press **DISPLAY** to reduce the value of the sensor and **ADD** to increase the value.
- e) Press **START** to save the changes.

Note

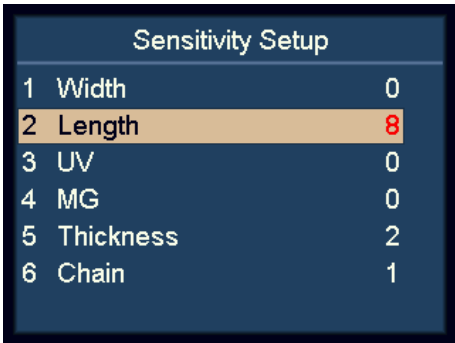
0 means detection off.

8 means the highest sensitivity value.

To discriminate banknote, please adjust from the higher sensitivity value like 6 to 8.

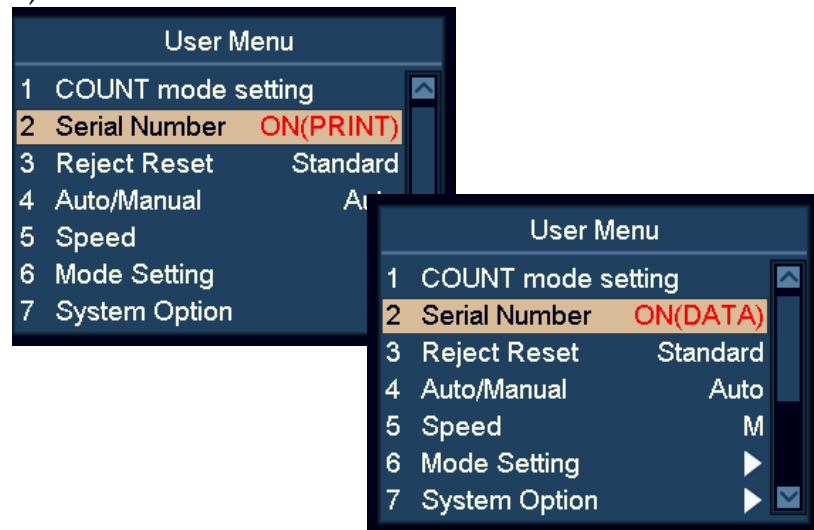
Thickness setting is for double detection sensitivity.

Chain setting is for chain detection and recommended to be 1 that means activated.



Serial Number Recognition

- Highlight the “2 Serial Number” item.
- Press **START** to confirm.



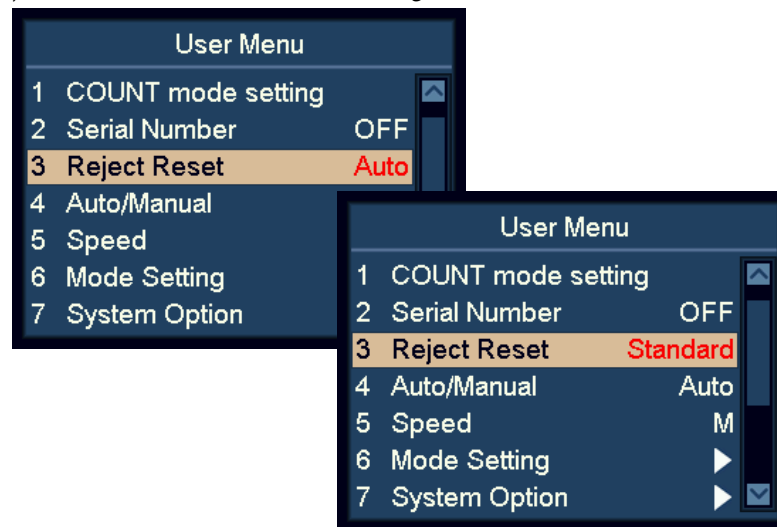
- Activate or deactivate the serial number recognition function by using navigation keys.
 - OFF serial number off
 - ON(DATA) serial number data activated
 - ON(PRINT) serial number data and printout activated
- Press **START** to save the changes.

Note

User can feed banknotes with any orientation, provided that the specific currency has serial number function supported.

Reject Reset

- Highlight the “3 Reject Reset ” item.
- Press **START** to confirm the selection.
- Use the navigation keys to switch between **Auto** or **Standard** mode.
- Press **START** to save the changes.

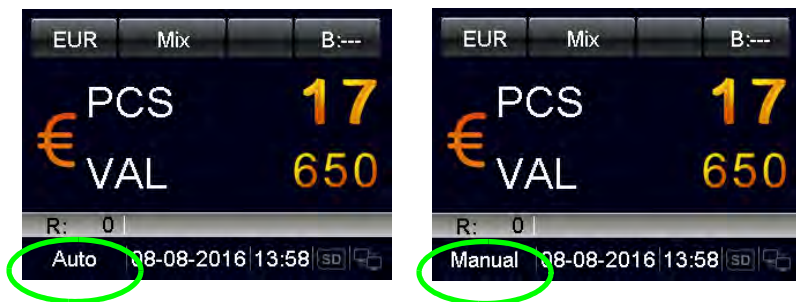


With “Auto” activated, the machine clears the reject number automatically as soon as the banknotes are removed from the reject pocket, even while the machine is still counting.

With “Standard” activated, the machine clears the rejected number after pressing **C**.

Automatic / Manual Counting Start Mode

- Highlight the “4 Auto/Manual” item.
- Press **START** to confirm.
- Switch between Automatic and Manual Counting start Mode.
- Press **START** to save the setting.



- With “Auto” activated, the machine starts counting as soon as banknotes are detected on the hopper.
- With “Manual” activated, the machine starts counting when pressing **START**.

Note

The Start Mode can also be switched in Main menu by holding **START**.

Counting Speed

- Highlight the “5 Speed” item.
- Press **START** to confirm.
- Use navigation keys to select desired Counting Speed.
 - **L**: 800 notes/minute
 - **M**: 900 notes/minute
 - **H**: 1100 notes/minute

Note

In counterfeit detection mode, high speed is forbidden.

Sorting Mode Setting

- a) Highlight the “6 Mode Setting”.
- b) Press **START** to confirm.

Face Sorting Mode

- a) Highlight the “1 Face Mode” item.
- b) Press **START** to confirm.
- c) Select mode for **Face Sorting** by using navigation keys, and press **START** to confirm.

Mode Setting		
1	Face Mode	Mix
2	Orient Mode	Single
3	F&O Mode	Single
4	Version Mode	Single

- **Face(M) Mix:** Face Sorting of Mixed Denomination.
- **Face(S) Single:** Face Sorting with Denomination Detection.

Note
Default setting is Single.

Orientation Sorting Mode

- a) Highlight the “2 Orient Mode” item.
- b) Press **START** to confirm.
- c) Select mode for Orientation Sorting by using navigation keys, and press **START** to confirm.

Mode Setting		
1	Face Mode	Single
2	Orient Mode	Mix
3	F&O Mode	Single
4	Version Mode	Single

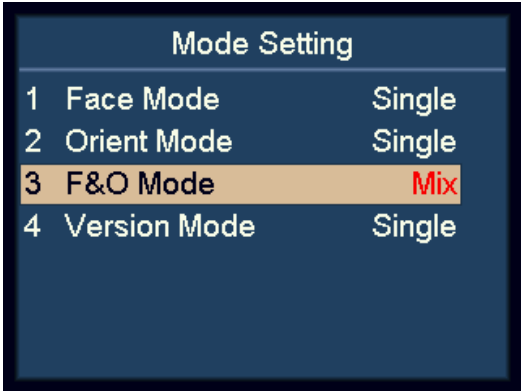
- **Orient(M) Mix:** Orientation Sorting of Mixed Denomination.
- **Orient(S) Single:** Orientation Sorting with Denomination Detection.

Note
Default setting is Single.

Face and Orientation Sorting Mode

- a) Highlight the “3 F&O Mode” item.
- b) Press **START** to confirm.

Select mode for mode for Face and Orientation Sorting by using navigation keys, and press **START** to confirm.

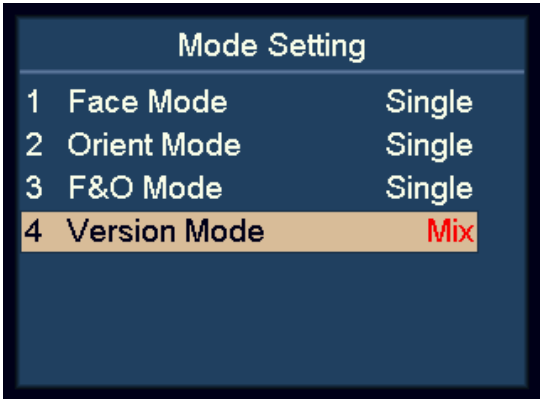


- **F&O(M) Mix:** Face Sorting and Orientation Sorting of Mixed Denomination.
- **F&O(S) Single:** Face Sorting and Orientation Sorting with Denomination Detection.

Note
Default setting is Single.

Version Sorting Mode

- a) Highlight the “4 Version Mode” item.
- b) Press **START** to confirm.
- c) Select mode for Version Sorting by using navigation keys, and press **START** to confirm.

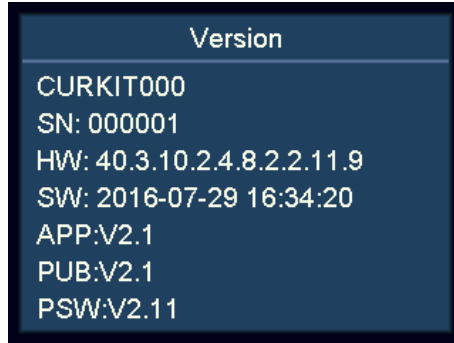


- **VER(M) Mix:** Version Sorting of Mixed Denomination.
- **VER(S) Single:** Version Sorting with Denomination Detection.

Note
Default setting is Single.

Viewing Version Information of Machine

- a) Highlight the “8 Version” item.
- b) Press **START** to confirm.



- CURKIT000 Currency kit number
- SN:000001 Serial number
- HW:40.3.10.2.4.8.2.2.11.9 Hardware version
- SW:2016007-05 16:41:34 Software compiling time

Setting Import

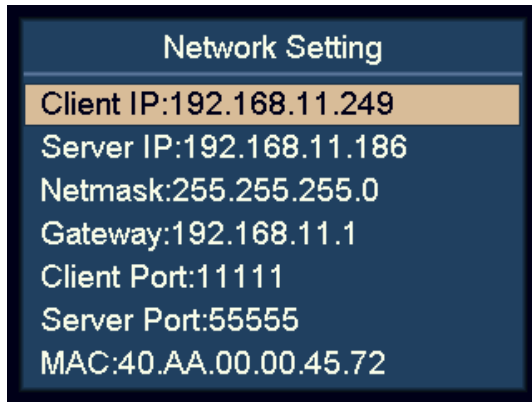
- a) Insert an SD card into the SD card slot. The SD card should have setting.txt created from Setting Export.
- b) Highlight the “10 Setting Import” item.
- c) Press **START** to confirm.
- d) The user parameters will be loaded into the machine. After that, please follow the on-screen instruction to restart the machine.

Setting Export

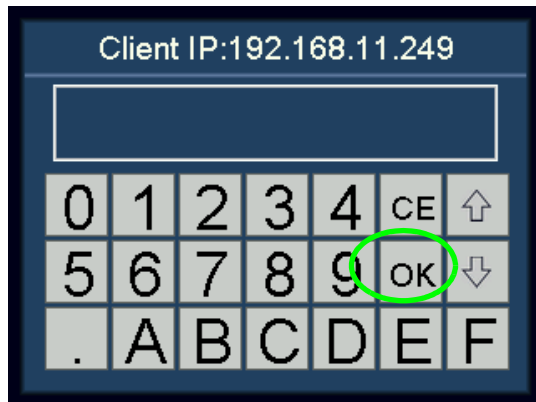
- a) Insert an SD card into the SD card slot.
- b) Highlight the “11 Setting Export” item.
- c) Press **START** to confirm.
- d) The user parameters will be saved into the SD card as setting.txt.

Network Setting

- a) Highlight the “12 Network Setting” item.
- b) Press **START** to confirm.



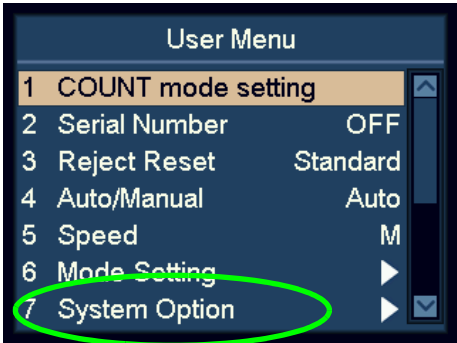
- c) Select the desired item by using navigation keys, and press **START** to confirm.



- d) Enter desired value by using the touch screen.
- e) Press **START** or **OK** to save.
- f) Restart the machine.

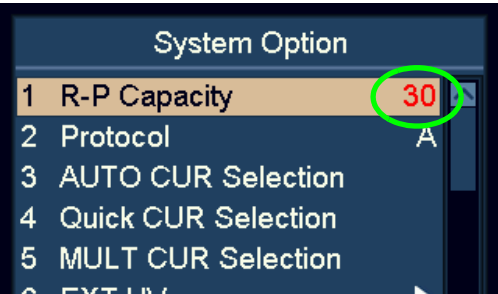
Basic Device Settings

- a) Highlight the “7 System Option” item.
- b) Press **START** to confirm.



Reject Pocket Capacity Settings

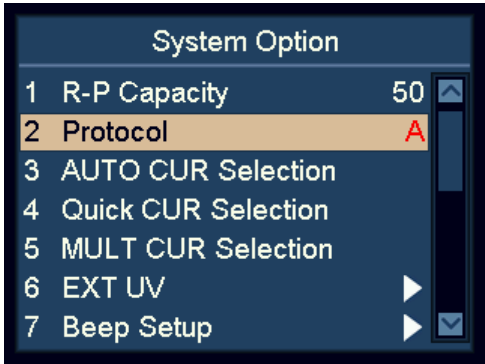
- a) Highlight the “1 R-P Capacity” item.
- b) Press **START** to confirm.
- c) Select the desired reject pocket capacity by using navigation keys. 50, 40, 30, and 20 are available.



- d) Press **START** to save the changes.

Protocol

- a) Highlight the “2 Protocol” item.
- b) Press **START** to confirm.



- c) User can choose SCAN COIN protocol (A) or the protocol specific for SC 8220 CashNetwork software (B) by using the navigation keys.



- d) Press **START** to save.

Automatic Recognition Currency Selection

- Highlight the “3 AUTO CUR Selection” item, and then confirm with.
- Press **START** to confirm.
- Use **ADD** and **DISPLAY** to highlight the desired currency.
- Press **START** to confirm.
- Use navigation keys to change between ON and OFF, and then confirm with.



- Press **START** to save the changes.

Note

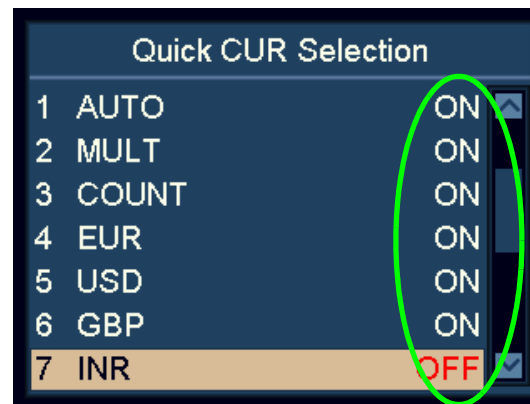
User can select maximum 10 currencies for AUTO mode.

Note

If two currencies have banknotes that look similar, suggest to turn off one of them in AUTO mode.

Quick Currency Selection

- Highlight the “4 Quick CUR Selection” item.
- Press **START** to confirm.
- Use **ADD** and **DISPLAY** to highlight the currency.
- Press **START** to confirm.
- Use navigation keys to toggle between ON and OFF.



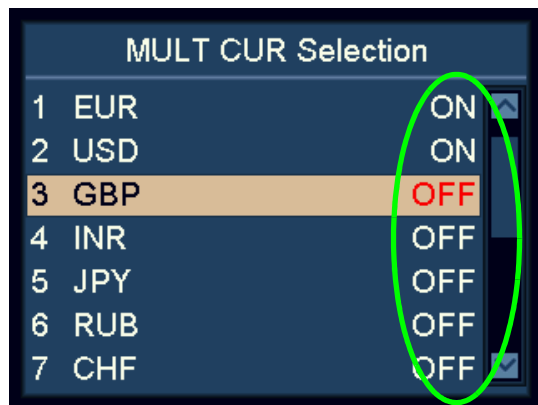
- Press **START** to confirm.

Note

This feature is very useful if user wants to reduce the number of currencies on the cycle when pressing **CUR**.

Multi-Currency Configuration

- Highlight the “5 MULT CUR Selection” item.
- Press **START** to confirm.
- Use **ADD** and **DISPLAY** to highlight the desired currency.
- Press **START** to confirm.
- Use navigation keys to toggle between ON and OFF.



- Press **START** to confirm.

Note

In Multi-Currency mode, user can configure maximum 3 currencies.

Note

If two currencies have banknotes that are similar, turn off one of them in MULT mode.

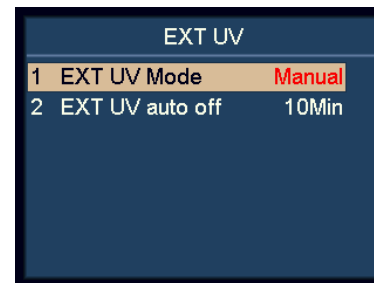
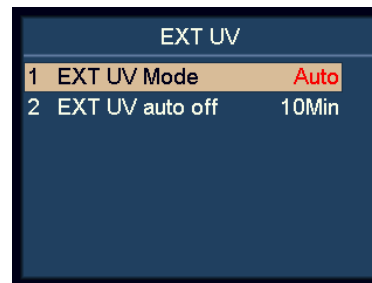
External UV Settings

External UV can be activated by pressing the dedicated UV switch, or activated automatically when there is a rejected banknote.

- Highlight the “6 EXT UV” item.
- Press **START** to confirm.

Manual and Automatic UV Mode

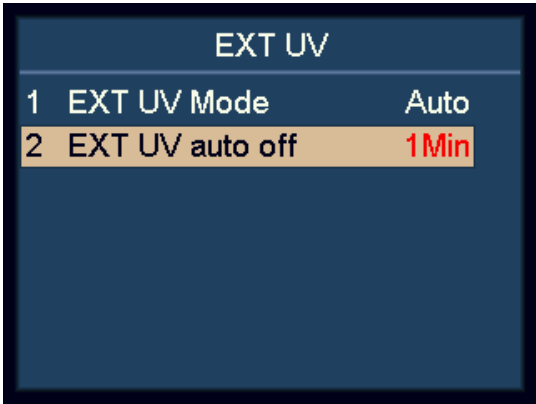
- Highlight the “1 EXT UV Mode” item.
- Press **START** to confirm.
- Use the navigation keys to switch between manual and automatic external UV mode.



- Press **START** to confirm.
 - With “Auto” selected, the External UV emits automatically when there is banknote rejected.
 - With “Manual” selected, the External UV emits by pressing the dedicated UV switch on the lower left of the machine.

Automatic turn off Time for the External UV

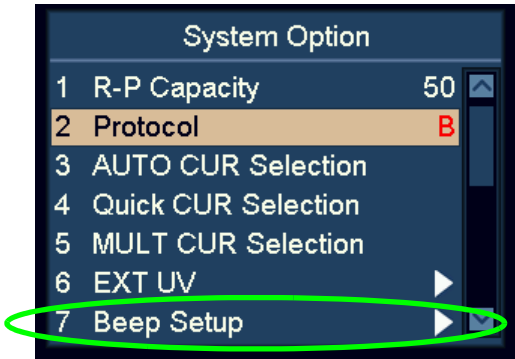
- a) Highlight the “2 EXT UV auto off” item.
- b) Press **START** to confirm.



- c) Use the navigation keys to set the automatic turn off time.

Sound Settings

- a) Highlight the “7 Beep Setup” item.



- b) Press **START** to confirm.

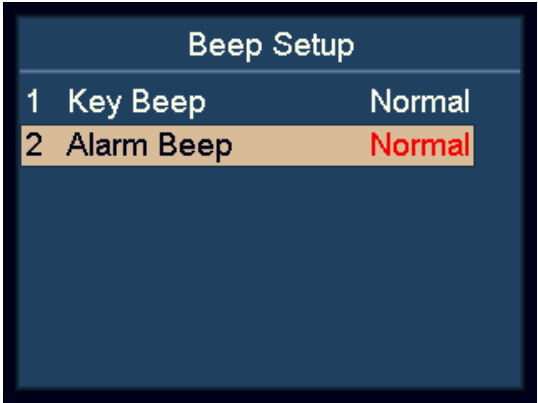
Turning on/off Key Beep Settings

- a) Highlight the “1 Key Beep” item.
- b) Press **START** to confirm.
- c) Use navigation keys to toggle between Key Beep **Normal** and **Mute**.
- d) Press **START** to confirm.



Turning off Alarm Settings

- a) Highlight the “2 Alarm Beep” item.
- b) Press **START** to confirm.
- c) Use navigation keys to toggle between Alarm Beep **Normal** and **Mute**.

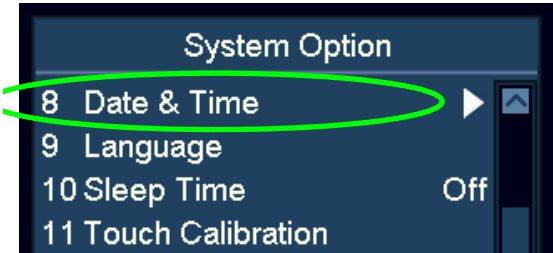


- d) Press **START** to confirm.

When Alarm Beep is turned on, the machine makes beep sound when there are rejected notes after the counting.

Setting Up Date and Time

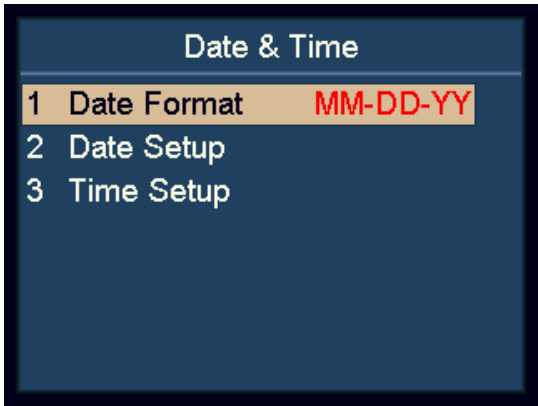
- a) Highlight the “8 Date & Time” item.



- b) Press **START** to confirm.

Changing Date Format Setting.

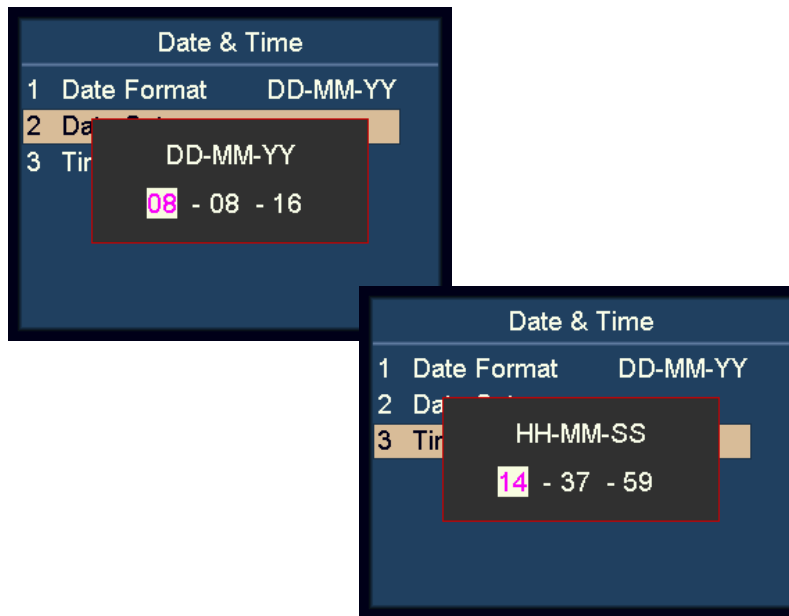
- a) Highlight the “1 Date Format” item.
- b) Press **START** to confirm.
- c) Use navigation keys to toggle between Date Formats.



- d) Press **START** to confirm.

Changing Date and Time Settings

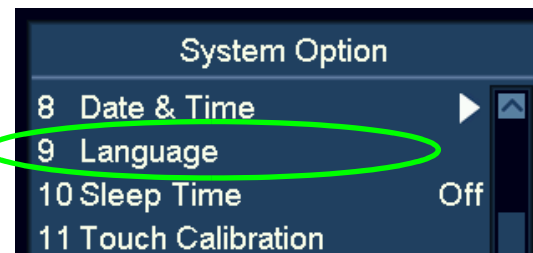
- Highlight the “2 Date Setup or “3 Time Setup” items.
- Press **START** to confirm.
- Use navigation keys to highlight the desired value to modify.



- Press **START** to confirm the value to modify.
The colour of the selected value will change from black to purple.
- Use navigation keys to change the value.
- Press **START** to confirm.
- Press **MENU** to leave.

Changing User Interface Language

- Highlight the “9 Language” item.



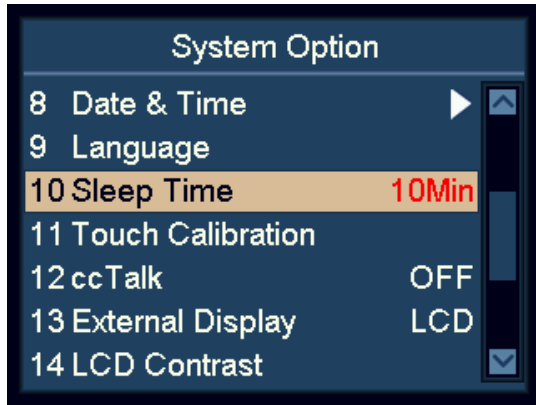
- Press **START** to confirm.



- Use the navigation keys to select the language.
- Press **START** to confirm.
- After finishing the settings, press **MENU** to leave this menu.

Activating Sleep Mode

- Highlight the “10 Sleep Time” item.
- Press **START** to confirm.



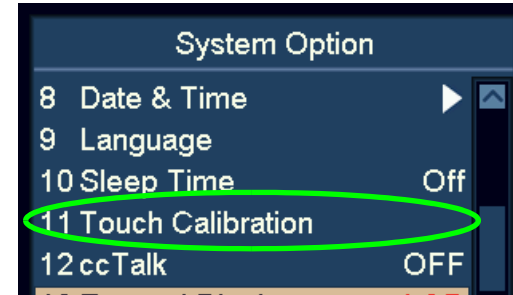
- Use the navigation keys to set the sleep time, then press **START** to confirm.

Note

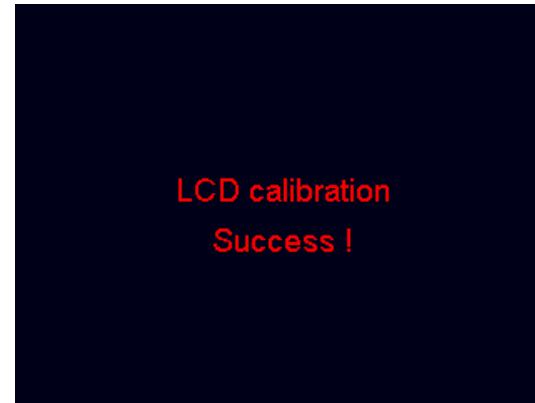
During sleep mode, the display turns off and only the blue indicator blinks every few seconds to remind. The machine can be activated by pressing any key or by feeding the banknote.

Calibrating Touch Screen

- Highlight the “11 Touch Calibration” item.



- Press **START** to confirm.



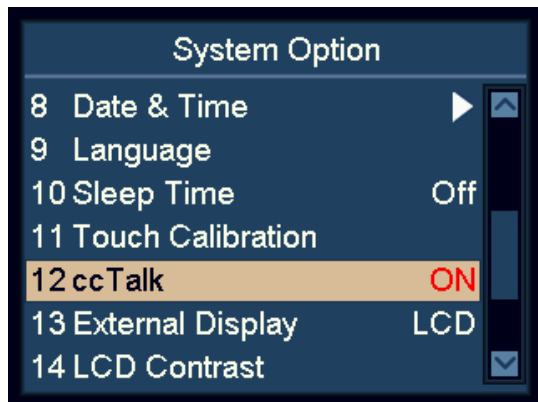
- Follow the on-screen instructions to touch the red dot by finger.

Turning ON/OFF ccTalk

To turn on/off ccTalk protocol for the PC software using ccTalk protocol by connecting to the serial port.

a) Highlight the “12 cc Talk” item.

b) Press **START** to confirm.



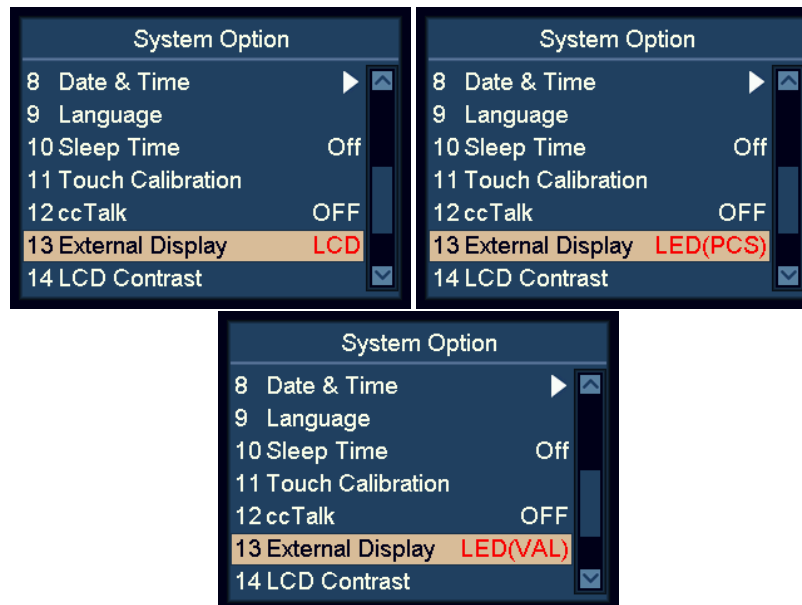
c) Use the navigation keys to toggle ON and OFF.

d) Press **START** to confirm.

Switching Between External LED and LCD Display

a) Highlight the “13 External Display” item.

b) Press **START** to confirm.



c) Use the navigation keys to toggle LCD, LED(VAL) and LED(PCS).

d) Press **START** to save the changes.

Setting Display Contrast

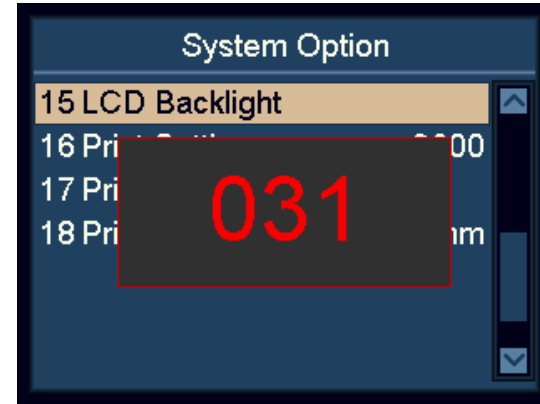
- a) Highlight the “14 LCD Contrast” item.
- b) Press **START** to confirm.



- c) Change the Display Contrast by using the navigation keys.
 - Press **ADD** to increase.
 - Press **DISPLAY** to decrease.
- d) Press **START** to save the changes.

Setting Display Backlight

- a) Highlight the “15 LCD Backlight” item.
- b) Press **START** to confirm.

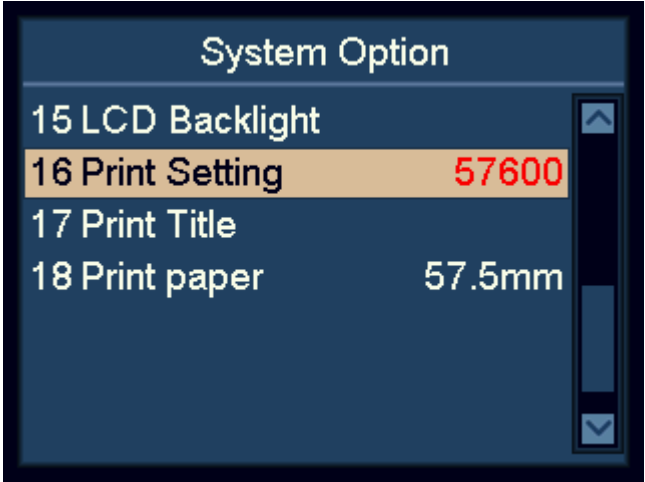


- c) Change the Display Contrast by using the navigation keys.
 - Press **ADD** to increase.
 - Press **DISPLAY** to decrease.
- d) Press **START** to save the changes.

Print Settings

Printer Baud Rate Settings

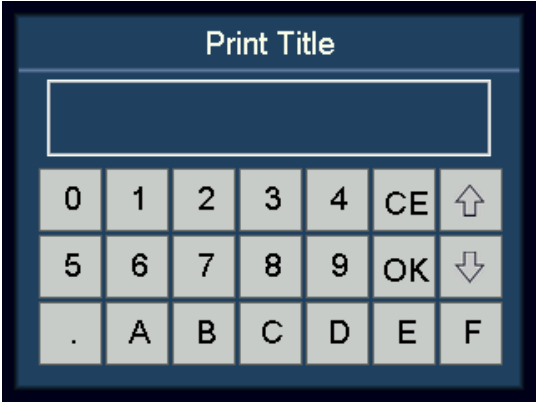
- a) Highlight the “16 Print Setting” item.
- b) Press **START** to confirm.
- c) Use navigation keys to select the desired baud rate of the connected printer.



- 9600: 9,600 bps
- 19200: 19,200 bps
- 28800: 28,800 bps
- 38400: 38,400 bps
- 57600: 57,600 bps
- 115200: 115,200 bps
- d) Press **START** to save the change
- e) Press **MENU** to leave.

Print Title Settings

- a) Highlight the “17 Print Title” item.
- b) Press **START** to confirm. The current print title is shown.
- c) Press **START** one more time to enter the interface for entering.
- d) After entering the print title, press **START** or **OK**. Wait for a few seconds, then the print title is saved.



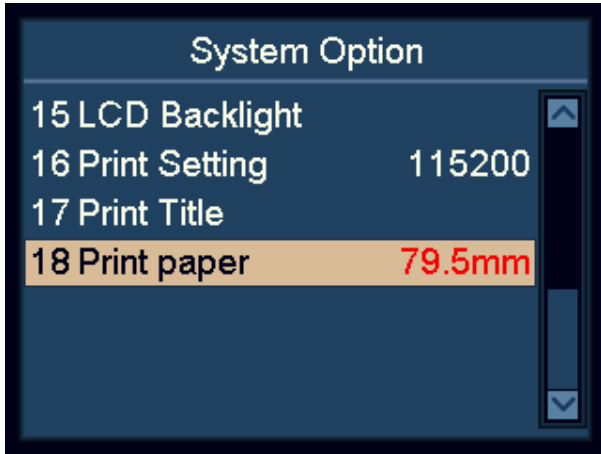
- e) Press **MENU** to leave.

Note

Upper case and lower case can be switched by pressing **PRINT**.

Print Paper Settings

- a) Highlight the “18 Print paper” item.
- b) Press **START** to confirm.



- c) Check the paper width of the connected printer.
 - 57.5mm: 2-inch paper
 - 79.5mm: 3-inch paper
- d) Use navigation keys to select the paper width of the connected printer.
- e) Press **START** to save the changes

Maintenance

Accessing Note Path



Upper note path



Lower note path



Cleaning

Clean the machine daily to prevent from accumulation of dirt, since this may cause too many banknotes to be rejected.

Use an air brush to blow away dirt from the sensors.

Caution!

Only use cleaning materials and tools which do not scratch.

Clean the outside of the machine with a soft cotton towel. Take care not to let any excess liquid drip into the interior of machine.

Cleaning note path

- a) Open the Upper Note Path.
- b) Gently wipe or dust the Note Path with a small, soft brush or a dry, soft lint-free cloth.
- c) If stains remain, moisten a soft, lint-free cloth with water or a 50/50 mixture of isopropyl alcohol and water that does not contain impurities.
- d) Wring out as much of the liquid as you can.
- e) Wipe the Note Path and the sensor surfaces again; do not let any liquid drip into the machine.
- f) Repeat a-e to clean the Lower Note Path.

Caution!

Avoid spraying cleaner directly on machine, and be sure to dry the Note Path before closing it.

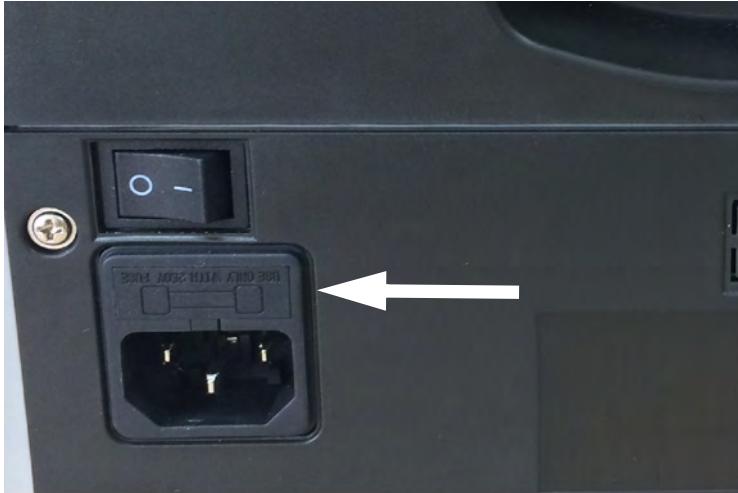
Exchanging Fuse



WARNING

Risk of electric shock. Follow the safety precautions.

- Disconnect the main power cable before opening the cover, otherwise you **might risk an electric shock**.
- To exchange the fuse, please remove the cover first.



Note

Replace the cover properly after exchanging the fuse.

Caution!

For continued protection against risk of fire, replace only with same type and rating of fuse.

Adjusting Feeding Gap

The position of the adjusting screw on the top cover has already been set to the best position at the factory. If banknote feeding is unsmooth or banknote counting is inaccurate, it can be necessary to adjust the adjusting screw to optimize the banknote transport.



- Clockwise for increasing the gap between the resistance wheel and the banknote twiddling wheel gear.
- Counter-clockwise for decreasing the gap.

Decrease the gap



Increase the gap

Test by putting a bank note in the hopper and hold. If you feel the pull, the machine is workable.

Note

The adjusting screw is very sensitive, make only minor adjustment.

Software Update

Update SC 8220 using an SD card. Follow strictly the instructions below to update your machine in the correct way.

- a) Turn on the machine.
- b) Put the UPDATE folder in the root directory of an SD card.
- c) Insert the SD card into the SD card slot.
- d) Press **MENU** to enter the User Menu.
- e) Highlight “9 Upgrade” item and press **START** to confirm.
- f) The machine selects the installed CURKIT automatically, press **START** to continue.
- g) Input the password by using the touch screen. Press **OK** to confirm. The machine will start updating.
- h) After the screen shows “Updating OK, Restart Please!”, remove the SD card and restart the machine.

Note

During the upgrading process, be sure to prevent interruption of power or SD card. Please use 8, 16, or 32GB SD card.

Error Message

Self-test error message

NO	Error message	Solutions
1	Feeding Fault	Remove the banknote, clean the feeding sensor.
2	Receiving Fault	Remove the banknote, clean the receiving sensor.
3	Rejector Faults	Remove the banknote, clean the rejector sensor.
4	UV Fault	Remove the banknote, clean the UV sensor.
5	FL Fault	Remove the banknote, clean the sensor.
6	Left#1 Counting Fault	Remove the banknote, clean the Counting IR sensor. If the errors remain, please perform the Counting IR sensor calibration.
7	Right#1 Counting Fault	
8	Left#2 Counting Fault	
9	Right#2 Counting Fault	
10	Left CIS IR Fault	Remove the banknote, clean the IR counting tube.
11	Right CIS IR Fault	
12	Rotate#1 Speed Fault	Remove the banknote, clean the rotate speed sensor 1.
13	Rotate#2 Speed Fault	Remove the banknote, clean the rotate speed sensor 2.
14	CIS#0 Fault	Remove the banknote, clean the CIS sensor. Perform the CIS sensor calibration.
15	CIS#1 Fault	
17	CIS#2 Fault	
18	AD Fault	Power off. restart the machine. If the problem persists, Replace the AD chip on the main.

NO	Error message	Solutions
19	Brake Fault	<ol style="list-style-type: none"> 1. It's possible the speed of the machine is abnormal. Please do the motor speed calibration. 2. If the error persists after calibration, maybe there is something wrong with motor control board, please replace the motor control board. 3. If the machine still has problem after replacing motor control board, then please replace the feeding motor.
20	Diverter #1 Fault	Please adjust the location of commutator.
21	Diverter #2 Fault	
22	Diverter #3 Fault	
23	Diverter #4 Fault	
24	Auto Adjust IR Fault, Please Clean Count Sensor!	<ol style="list-style-type: none"> 1. The counting IR sensor is blocked off by dust, please use a brush or a piece of soft cloth to clear the dust on the sensor. 2. If the machine still has problem, please do the counting IR calibration first. 3. If that cannot solve the problem, please replace the counting IR sensor.
25	MG# 1 Fault MG#2 Fault MG#3 Fault	Check if the plugs on the left magnetism board get loose, if the plugs do not get loose, then please replace the left magnetism board sub-assembly.
26	MG#4 Fault MG#5 Fault	Check if the plugs on the MRS magnetism board get loose, if the plugs do not get loose, then please replace the MRS magnetism board sub-assembly.
27	MG#6 Fault MG#7 Fault MG#8 Fault	Check if the plugs on the right magnetism board get loose, if the plugs do not get loose, then please replace the right magnetism board sub-assembly.
28	MID-MG Fault MID-MT Fault	Check if the plugs on the middle magnetism board get loose, if the plugs do not get loose, then please replace the middle magnetism board sub-assembly.

Detective error message

NO	Error message	Solutions
1	UV-Error FL-Error	Remove the banknotes, clean the sensor. If the error persists, please do the UV calibration.
2	MG-Error	Clean the magnetic sensor.
3	MG1-Error	Lower the sensitivity level
3	MG2-Error	
4	MG3-Error	
5	IR-Error	Please do the Counting IR calibration. Lower the sensitivity level.
7	Composed-Error	Remove the banknote.
8	Slant	The banknotes are not being fed straight through the machine. Ensure the banknotes are placed neatly and are inserted on the centre of the hopper. Use the hopper note guides to guide the banknotes on centre when counting a large stack of banknotes.
9	Slant#1	
10	Double	If the errors occur frequently, adjust the adjusting screw toward the anti-clockwise direction to decrease the clearance.
11	Chained#1	
12	Chained#2	
13	Chained#3	
14	Count	Remove the banknotes from stacker and reject pocket, and count once again.
15	Half	Remove the banknote.

NO	Error message	Solutions
16	Width	Please do the width calibration first. Then perform the counting IR sensor calibration.
17	Length	
18	Image#1	Please do the CIS calibration. Scan the miscounting data for analysis.
19	Image#2	
20	Image#3	
21	Old Ver	Remove the banknote.
22	Judge	
23	SN-Error	
24	SN Invalid	
25	SN Repeat	
26	Face Diff	
27	Orient Diff	
28	Ver Diff	
29	Deno Diff	
30	Soiling	
31	Stains	
32	Graffiti	
33	De-inked note	
34	Tears	
35	Mutilation	
36	Repairs	
37	Crumples	
38	Limpness	
39	Fold	
40	Corner Folds	

NO	Error message	Solutions
41	Stacker Full	The stacker is full. Remove the banknotes from the stacker.
42	Reject Full	The reject pocket is full. Remove the banknotes from the reject pocket.
43	Cover Open	Close the top cover.
44	Jam	1. Some foreign substance falls inside the machine or notes are blocked, open the back cover to remove them. 2. If it occurs frequently, please lower the motor speed parameter. If the problem still persists after adjustment, please turn the adjusting screw clockwise, the feeding gap will increase, and then check if the tooth rubber between the feeding wheel and the twiddling wheel are consistent.

Technical Data

Counterfeit detection: IR, MG, DUAL CIS, MT, UV
Counting speed: 800 / 900 / 1100 notes/min
Hopper Capacity: 500 notes
Stacker Capacity: 220 notes
Reject Pocket Capacity Max 50 notes

Power supply: AC100~240V, 50/60Hz
Power consumption: ≤50W
Temperature: 0°C~40°C
Humidity: 40~90%
Interface: LAN, RS232, RJ-11, USB, SD Card
Dimensions: 275(W)×260(D)×319(H) mm
Weight: 9.30 kg

Products subject to change without further notice.