

User Manual

English

2210 / 2250 Banknote Counters



Print version

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Introduction

Thank you for purchasing a Safescan 2200-series banknote counter. This user manual will help you to get started with your Safescan banknote counter and describes the setup and operating procedures. We recommend that before using the device you carefully read these operating instructions.

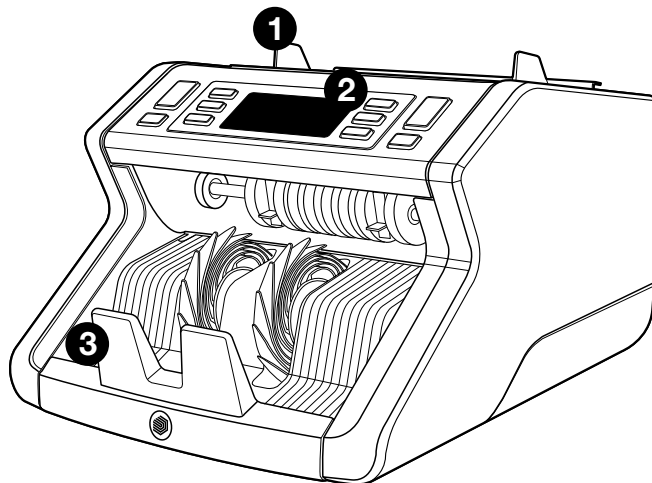
Package contents

The retail box contains the following items:

- Safescan 2210 / 2250 Banknote Counter
- Power cord(s)*
- Maintenance kit
- User Manual

Product

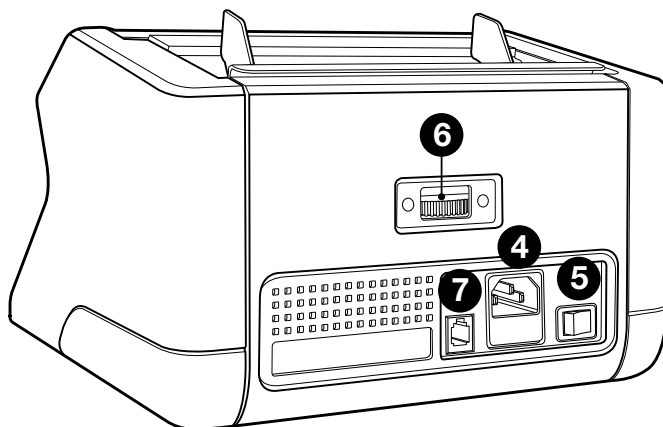
Front



1. Hopper with adjustable guides
2. Front panel (display / buttons)
3. Stacker

4. Power connection
5. On/Off switch
6. Hopper adjustment wheel
7. RJ12 port for external display connection

Back

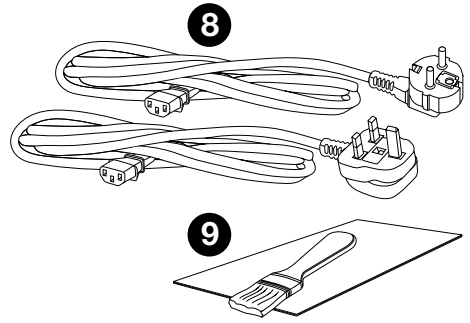


English

8. Power cord(s)*

9. Maintenance kit

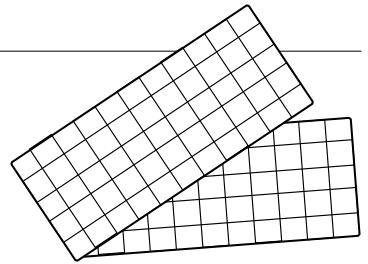
* Depending on model /
country specification



Available accessories

Safescan Cleaning Cards for banknote
counters (pack of 15 cards), partnumber
152-0663.

See **www.safescan.com** for details.

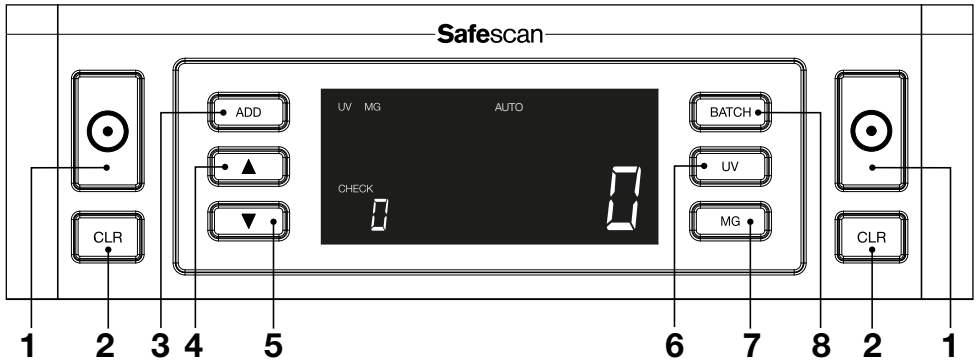


Safescan 2210 / 2250: features

Banknote feature detection

	UV features	MG features	UV and MG features	SIZE (height)
Safescan 2210	•	—	—	•
Safescan 2250	•	•	•	•

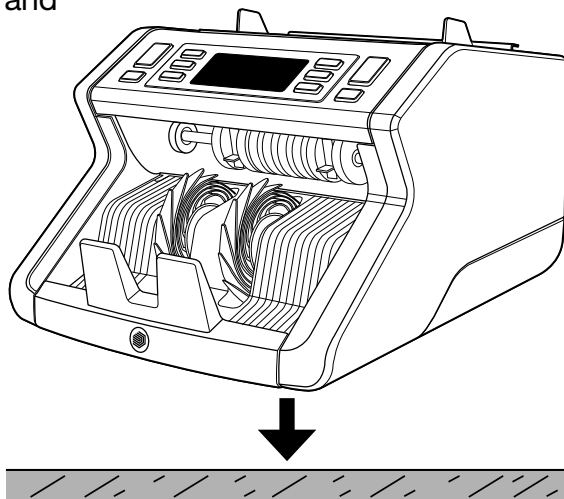
Buttons and operation



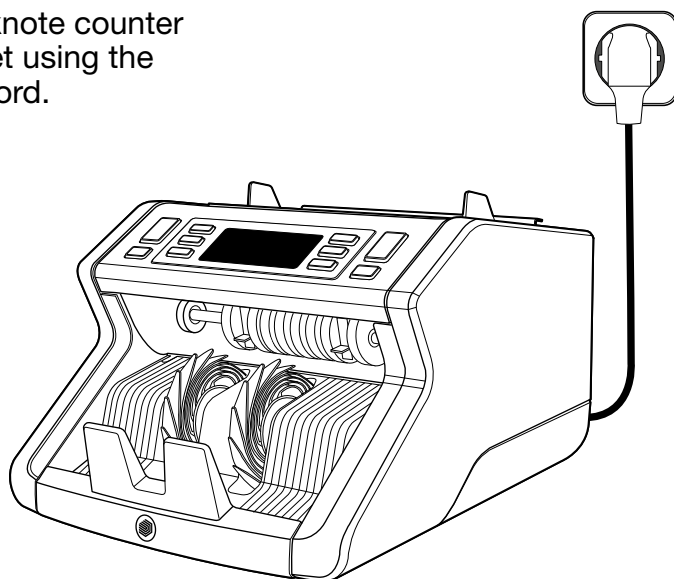
Short press	Long press (3 sec)
1. Start counting / Confirm sensitivity level selection	Select automatic or manual start
2. Clear the number of counted banknotes	Clear the number of counted banknotes
3. Add function on/off	Enter thickness sensitivity adjustment menu
4. Increase input value by 1	
5. Decrease input value by 1	Enable/disable size detection (valid for firmware version D08 / U08 or higher)
6. UV feature detection on/off	Enter UV sensitivity level adjustment menu
7. Safescan 2210: Select auto or manual start Safescan 2250: MG feature detection on/off	Enter MG sensitivity level adjustment menu (Safescan 2250)
8. Batch function on/off / set batch number	Enter banknote height sensitivity level adjustment menu

Getting started

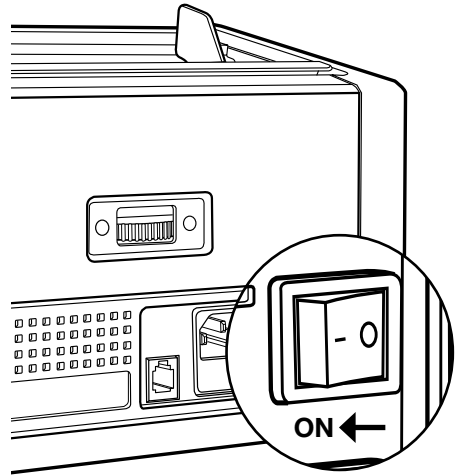
1. Place the device on a flat and stable surface.



2. Connect the banknote counter to the mains outlet using the supplied power cord.

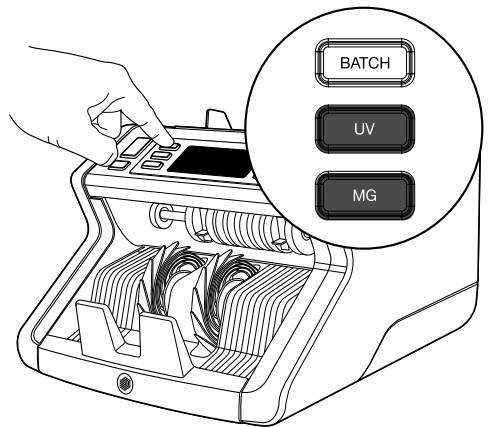


3. Switch on the banknote counter by pushing the power switch at the back in the “1” position.



4. Default banknote feature detection settings: Safescan 2210: UV, 2250: UV and MG. These can be switched on or off by pressing the UV and/or MG* button.

(* Safescan 2250 only)



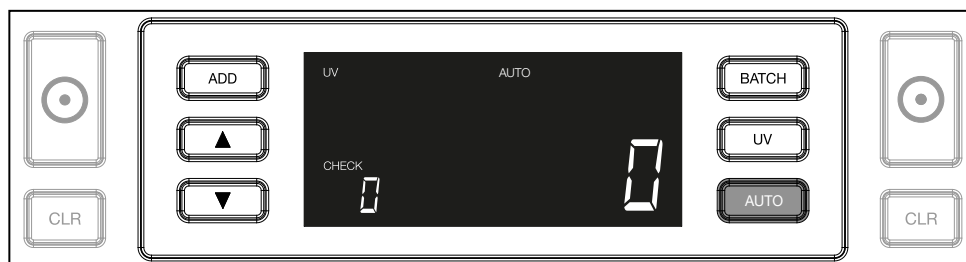
Ready for counting

The machine is now ready for basic counting. More advanced settings are described in the next chapters of this manual.

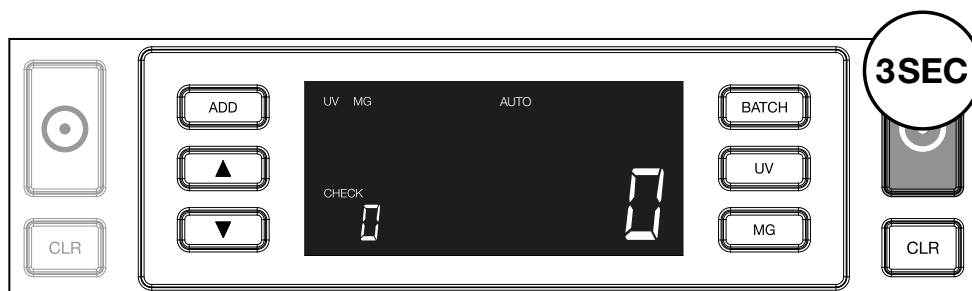
Counting banknotes

1. **AUTO START / MANUAL START.** Default setting is “**AUTO**” the machine will start counting once banknotes have been placed in the hopper. You can choose whether you want the device to start counting automatically or manually (counting starts after pressing the [**START**] button).

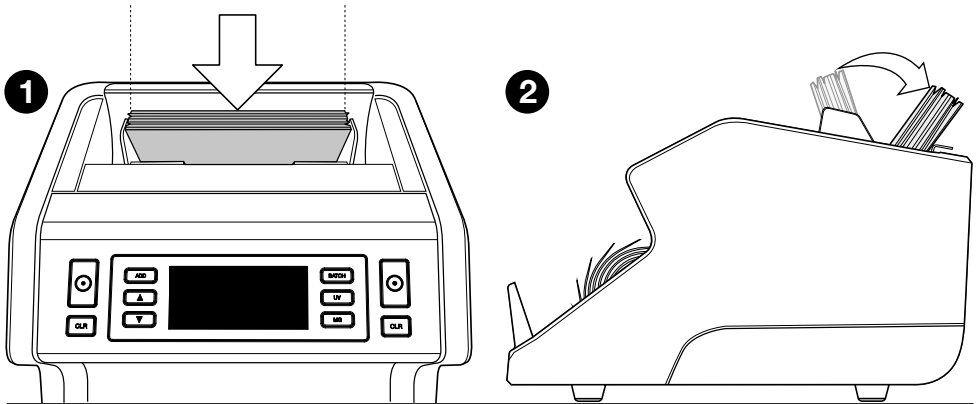
Safescan 2210: press the **AUTO** button to activate/de-activate the auto start function. This will be shown in the display.



Safescan 2250: press the **START** button for 3 seconds to activate/de-activate the auto start function.

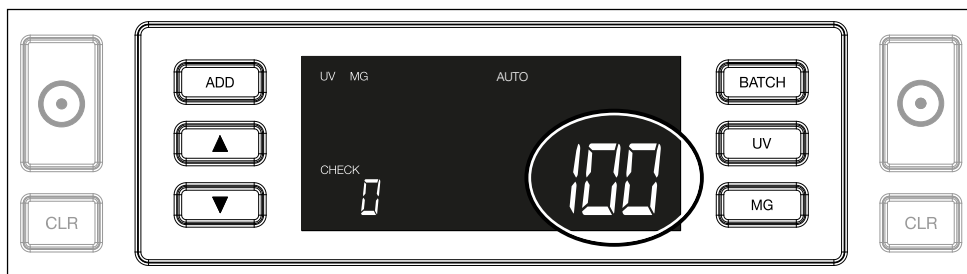


2. Start counting banknotes by placing the banknotes in the center of the hopper as shown in fig. 1, then flip them backwards as shown in fig. 2. Use the hopper guides to keep the banknotes centered.

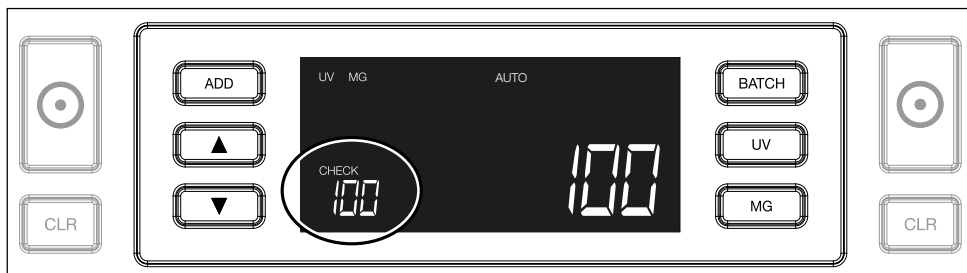


Please note The banknotes have to be sorted per denomination before counting.

3. The number of banknotes is shown clearly after the count has finished.

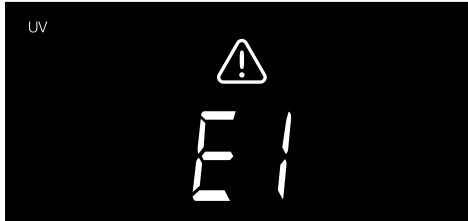


4. Once you count a second stack of banknotes or re-count the first stack, the number of notes of the previous count will be shown under **CHECK** in the display. To set this quantity to zero, press **CLR**.

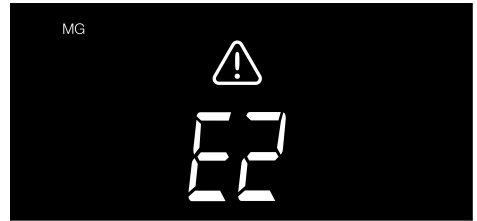


Error messages during a count

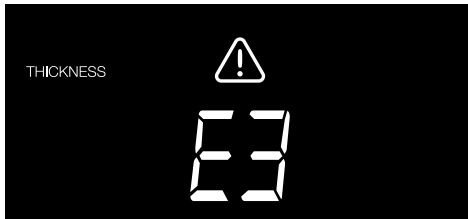
Once the machine detects a problem with a banknote, it will stop counting and show a clear message including the type of issue. The error concerns the last counted banknote in the stacker. The following messages are possible:



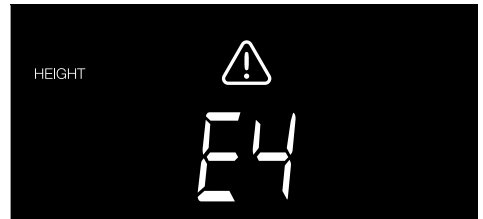
There is a problem with the UV features.



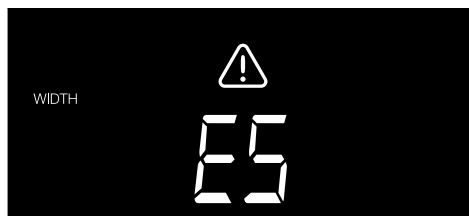
There is a problem with the magnetic features (Safescan 2250 only)



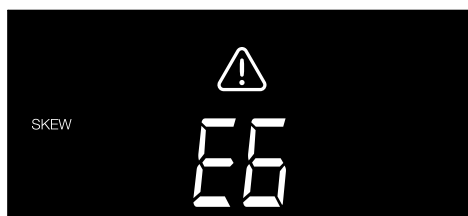
A banknote with a different **thickness** has been detected, or 2 banknotes may be stuck together (“double note detection”)



A banknote with a different **height** than the first counted banknote has been detected (minimum difference 5mm)



A banknote with a different **width** than the first counted banknote has been detected (“half note detection”)



The banknote has gone through the machine in a **skewed position** (not fed straight inside the machine).

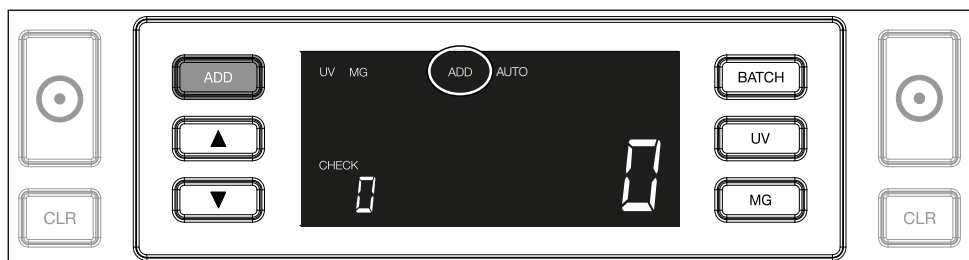
For more information and details please see chapter **“Troubleshooting”**

Remove the suspect banknote - this is the last counted banknote in the stacker - and press **START** to continue counting.

Add and batch functions

1. ADD

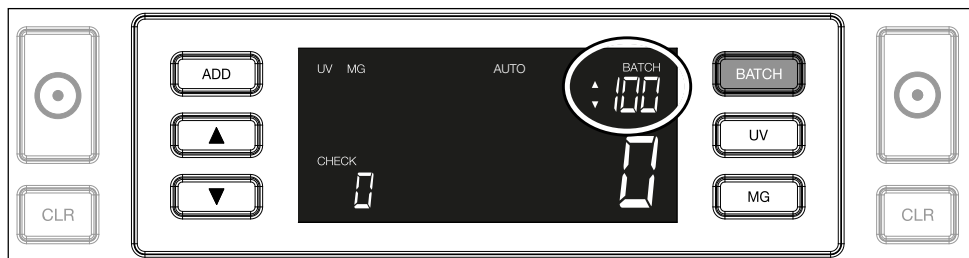
The **ADD** function enables you to count cumulatively. Once you remove a stack of counted banknotes and add a new stack, these quantities will be added to the total count. The function can be activated by pressing the **ADD** button. The indicator in the display will light up.



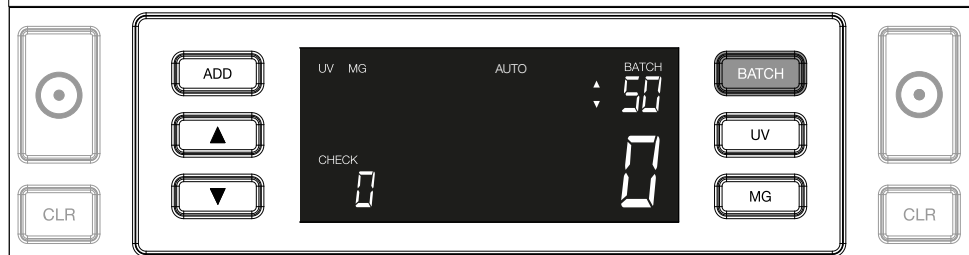
2. BATCH



The **BATCH** function enables you to create equal stacks of a pre-set number of banknotes. The counter will stop counting when the set batch number has been reached. You can set the batch number as follows:

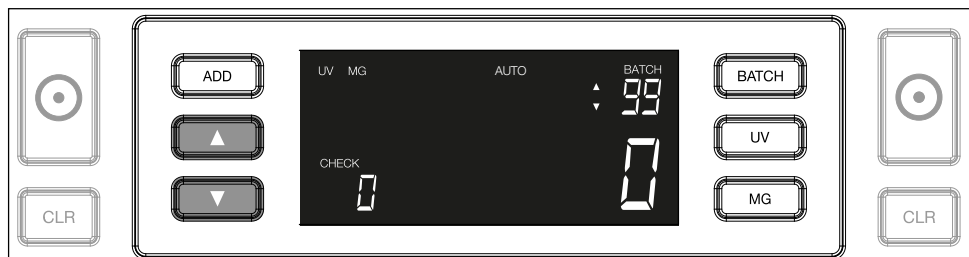
2.1. Press the **BATCH** button to activate the function. The indicator in the display lights up, including 2 blinking arrows.



- 2.2.** Navigate through the pre-set batch numbers by pressing the **BATCH** button again. The sequence is: 100 > 50 > 20 > 10 > Batch off.



- 2.3.** Use the arrow keys to increase or decrease the batch number by 1 piece, starting from the number that is shown. When the display shows '100', you can go to 101, 102 etc. by pressing  and to 99, 98 etc. by pressing .



- 2.4.** Confirm the batch number by pressing the **START** key. After this, the set batch number will remain visible in the screen.



Adjusting counterfeit detection settings

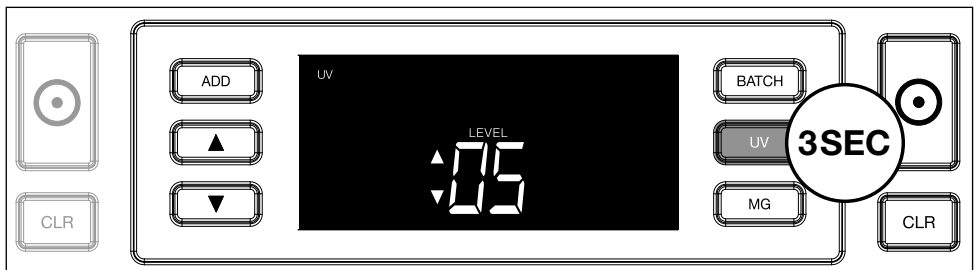
Your banknote counter has already been pre-configured with the optimal counterfeit detection settings. On rare occasions it could be required to manually adjust the sensitivity of one or more counterfeit detection settings.

Note: only adjust these settings when being advised to do so by a Safescan technical expert.

The sensitivity of the detection features can be adjusted via the menu. The following settings can be made:

1. UV

Pressing the UV button for 3 seconds will activate the UV sensitivity level menu. The default level is shown, including 2 blinking arrows. See (5) for adjustment procedure.



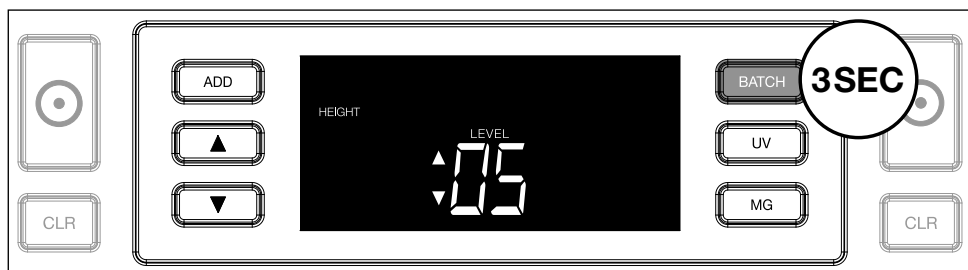
2. MG

Safescan 2250 only: Pressing the **MG** button for 3 seconds will activate the **MG** sensitivity level menu. The default level is shown, including 2 blinking arrows. See (5) for adjustment procedure.



3. Height

Pressing the **BATCH** button for 3 seconds will activate the **HEIGHT** sensitivity level menu. The default level is shown, including 2 blinking arrows. See (5) for adjustment procedure.



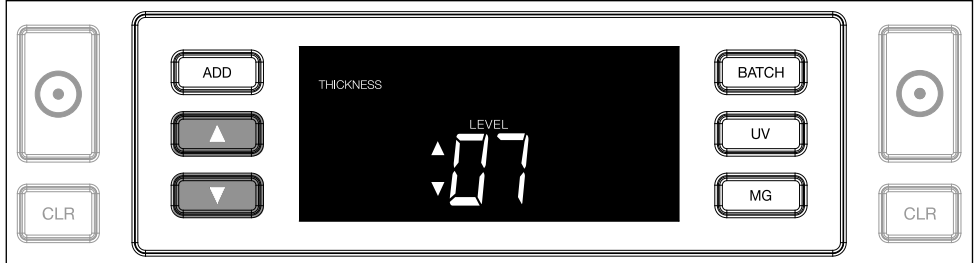
4. Thickness

Press the **ADD** button for 3 seconds to activate the **THICKNESS** sensitivity level menu. The default level is shown, including 2 blinking arrows. See (5) for adjustment procedure.



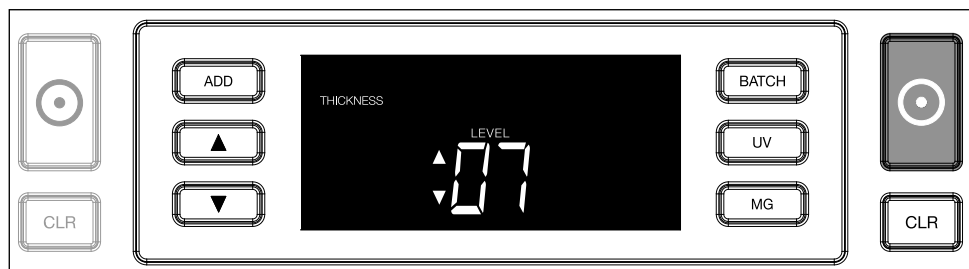
5. Level adjustment

Adjust the sensitivity level to a higher or lower level with the **ARROW** keys.



6. Confirm selection

Press **START** to confirm the set level.

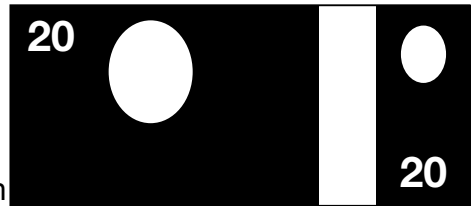


Reset to default factory settings


To return to factory default settings: Press and hold [**CLR**]. The machine will sound a “beep” to confirm that the factory default settings have been restored.

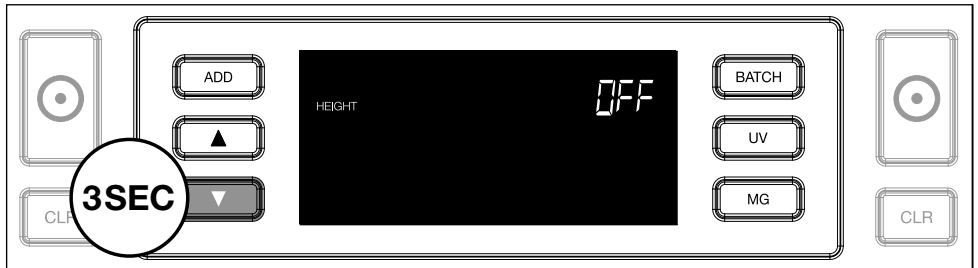
Counting Polymer banknotes with large transparent sections (valid for firmware version D08 / U08 or higher)

Some polymer banknotes have large transparent areas incorporated into their design, for example some denominations of **AUD, CAD, SCT, NIR** currencies (among others). Due to the position of these transparent areas on the banknote, the 2210/2250 may not always properly count these notes and will show an **E4 (height error) or E5 (width error)** message during counting.




To enable continuous, error-free counting of polymer banknotes with large transparent areas, there is an option to disable the height and width (half note) detection.

To disable the height and width detection, press the arrow down button  for 3 seconds. The device will sound 3 beeps and show “**HEIGHT OFF**” on the display.



Please note that in this setting the device will not be able to detect banknotes of a different height and/or width when these are included in the counted stack.

To enable size detection again, press the arrow down button  for 3 seconds. The device will sound 3 beeps and show “**HEIGHT ON**” on the display.

Troubleshooting

Problem	Cause	Solution(s)
E1 (UV) error message	<ul style="list-style-type: none"> - Banknote is a suspected counterfeit. - The integrated UV features of banknotes may become weaker when a banknote is old / heavily used or when it has accidentally been washed with the laundry. 	<ul style="list-style-type: none"> - Count the banknote again to double check if the problem persists. - Make sure that the device is not under direct strong light source since this may disrupt the UV sensors. - Clean the sensors and remove any dust that may have accidentally blocked the sensors. - If the banknote is in fact genuine, lower the UV sensitivity level and count the banknote again.
E2 (MG) error message	<ul style="list-style-type: none"> - Banknote is a suspected counterfeit. - Some currencies are known to have very weak MG features in certain banknote denominations, which are almost impossible to detect. - Some currencies may not have MG features integrated at all. 	<ul style="list-style-type: none"> - Count the banknote again to double check if the problem persists. - Clean the magnetic sensors with a banknote cleaning card. - If the banknote is in fact genuine, lower the MG sensitivity level and count the banknote again.

Problem	Cause	Solution(s)
E3 (thickness) error message	<ul style="list-style-type: none"> - The banknote has a deviating thickness and is seen as a counterfeit. - Multiple banknotes are stuck together and the device scans it as one. - The paper is too thick for the device to recognise it correctly. 	<ul style="list-style-type: none"> - Recount the banknote and see if the problem persists. - Check if any banknotes in your stack are stuck together. - Check if any banknote is folded or crumbled up.
E4 (height) error message	<ul style="list-style-type: none"> - The banknote has a deviating height and is seen as a counterfeit. - The banknote has a different denomination than the first counted note. - The banknote is partially damaged, ripped or torn. - The banknotes are not correctly fed through the device. 	<ul style="list-style-type: none"> - Recount the banknote and see if the problem persists. - Check if any deviating denominations are present in the stack and remove them. Banknotes need to be sorted before counting to ensure the best results. - Check if the banknotes are in good condition, straighten them out or remove the ones that are too damaged. - Adjust the hopper wheel if you notice that banknotes are not going straight through the device.

Problem	Cause	Solution(s)
Size detection does not work	<ul style="list-style-type: none">- All banknotes within the counted currency are of the same height (for example USD, CHF, CAD, AUD, HUF)- The difference in height between the various denominations may be too little to detect (must be minimum 5 mm)- The device might be in the "counting polymer notes with large transparent sections" mode. Press and hold the ARROW DOWN key for 3 seconds to exit this mode. For more information see page 20.	
E6 (Skewed note) error message shows	The banknotes are not being fed straight through the machine.	Ensure the banknotes are placed neatly and are inserted centered on the hopper. Use the hopper guides to center the banknotes and when counting a large stack of banknotes, guide the notes also with your hands during counting.

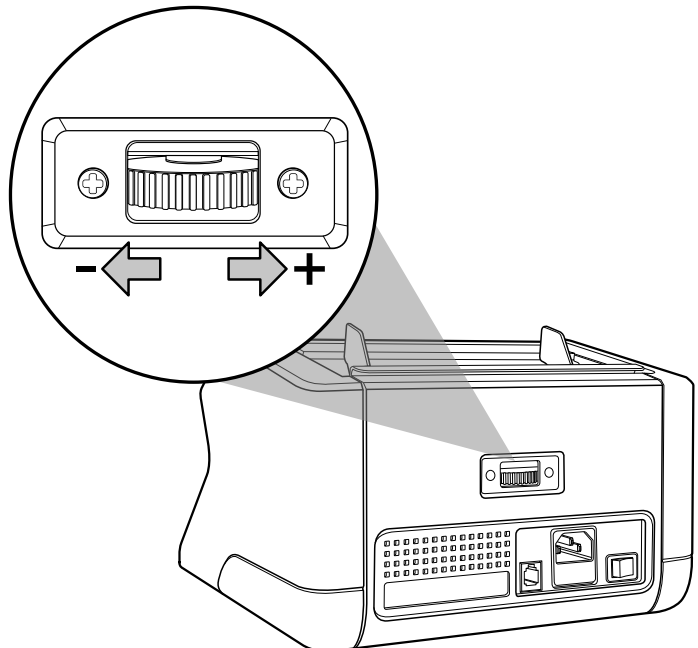
Problem	Cause	Solution(s)
EA0 ~ EA5 foutmeldingen bij aanzetten	Ensure that there are no banknotes present in the stacker (EA2 error) and/or that no banknotes or other objects are blocking any internal parts of the machine. When the error message remains, contact Safescan technical support for assistance.	

Hopper adjustment wheel

When thickness counting errors occur frequently, or when banknotes are not being fed smoothly through the machine, it may be necessary to adjust the hopper adjustment wheel. This wheel controls the thickness distance of the banknotes. The position of the hopper wheel has already been set in optimal position in the factory. However, due to the nature of some banknotes an adjustment may be required to ensure optimal feeding.

- When the banknotes are not being counted smoothly: increase the note thickness distance by turning the adjustment wheel clockwise (+).
- When counting errors like “thickness” (double notes) or “skewed notes” occur, decrease the note thickness distance by turning the sensitivity wheel anti-clockwise (-).

Please note: Since the adjustment wheel is very sensitive, only make minor adjustments.



Maintenance

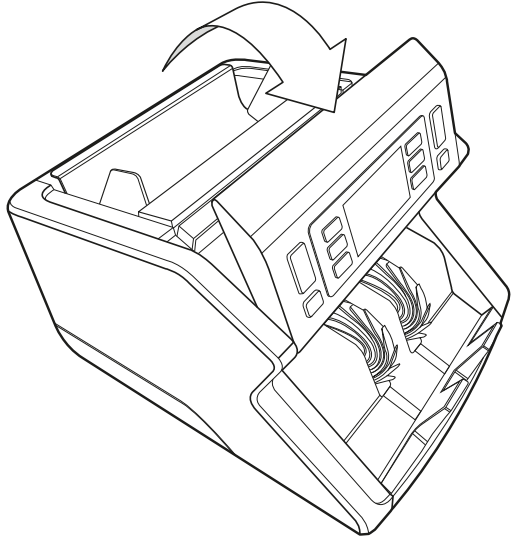
The Safescan 2210 / 2250 is a high precision device. To ensure that operation and reliability remain at an optimal level, it is important to clean the machine frequently. Use an air-duster to remove dust and dirt. Clean the hopper and stacker with the included dry brush. Use a banknote cleaning card (available as option) to clean the inner parts of the device.

Important: Prevent at all times that foreign objects like coins, staples or paperclips accidentally enter the mechanism since this will lead to device malfunctioning.

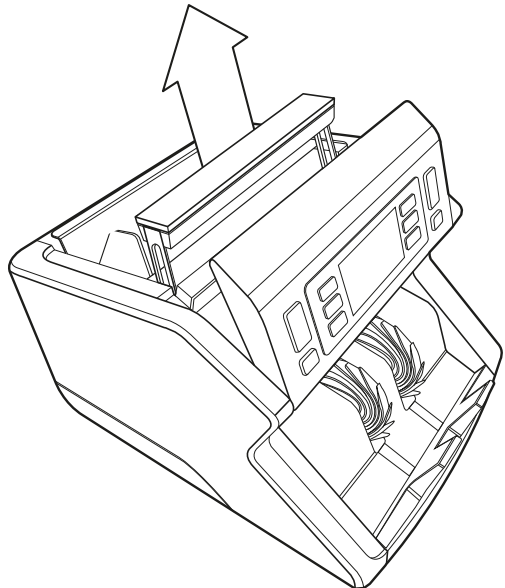
Cleaning your banknote counter

To clean the internal parts and sensors of the device:

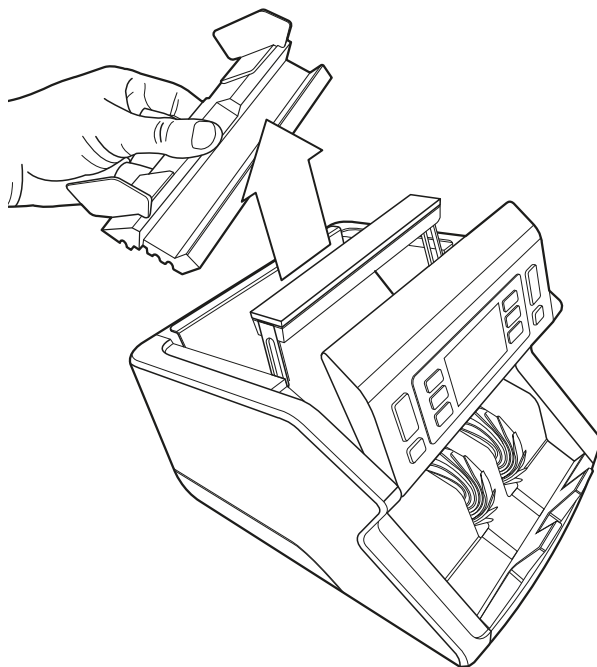
1. Open the cover by moving the front panel forward



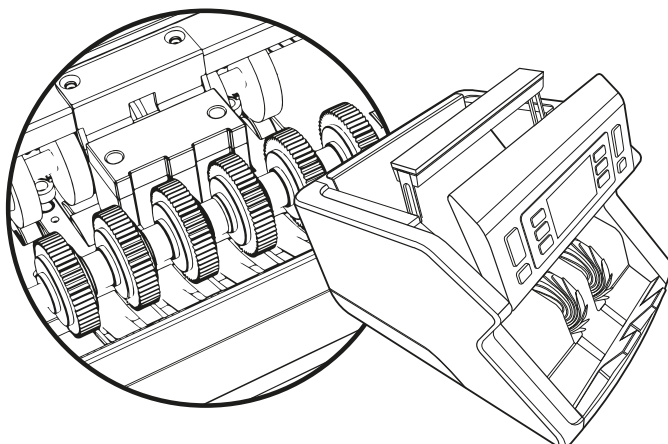
2. Lift up the handle



3. Remove the hopper guide assembly

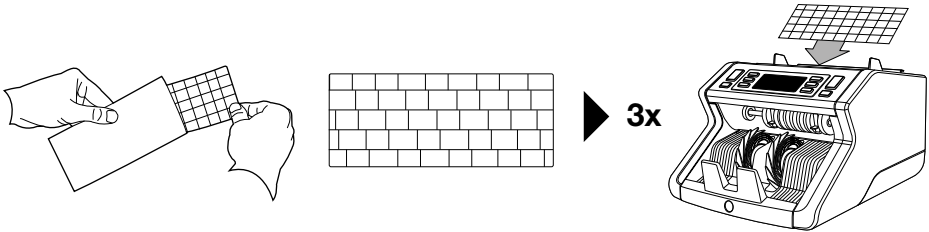


4. Clean the sensors and the rotation wheels carefully with a dry brush or air duster



The use of banknote counter cleaning cards (option)

You can also use the Safescan banknote counter cleaning cards (partno. 152-0663.) to clean the roller wheels and magnetic sensors.




Technical specifications

Supported currencies:	All currencies
Counting speed:	1000 banknotes/minute
Banknote feature detection:	UV features, MG features (Safescan 2250 only), Size (height), Thickness
Banknote size range:	50 x 110 mm ~ 90 x 180 mm
Hopper capacity:	300 notes
Stacker capacity:	200 notes
Power:	AC 220-240V / 50-60Hz. US model: AC 120V / 60Hz
Power consumption:	60W
Dimensions:	29.2 x 24.6 x 17.8 cm 11.5 x 9.7 x 7 inch
Weight:	5.7 kg / 12.5 lbs
Operating Temperature:	0 ~ 40°C

Warranty

Warranty procedure: contact Safescan for assistance:
www.safescan.com

 This product is in compliance with the essential requirements and other relevant provisions of the applicable European directives. The Declaration of Conformity (DoC) is available at **www.safescan.com**



Take the device to a recycling centre if you want to dispose of it. Never throw any electronic device away with the household waste.

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20231

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