

IMC20 Banknote Counter

User Manual

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IMC20

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User Manual in English
Deutsches Benutzerhandbuch
Manual de usuario en español
Manuel d'utilisation en français

Multi-Version Notice: This manual applies to all IMC20 series devices. Verify voltage, currency support, and physical design per your model (US/CAD/EUR/UK).

1.0. Machine Overview



Figure 1-1 IMC20 Front Diagram



Figure 1-2 IMC20 Back Diagram

NOTE: The North American versions (IMC20-US & IMC20-CAD) lack a banknote stopper, while the European version (IMC20-EUR & IMC20-UK) incorporates this additional component (see Figure 1-1 for structural details).

2.0. Unpack and Installation

2.1. What's in the Box?

When you receive the package, open and check the packing list in the package.

Table 2-1 What's in the Box?

Item Name	Picture	Quantity(pcs)	Description
Banknote Counter		1	Banknote Counter
External Display		1	External LED display screen with RJ11 cable
Power Cable		1	Power supply cable of American / North American / EU standard
Nylon Brush		1	Clean the machine
Fuse		1	Power supply protection spare fuse
User Manual		1	

2.2. Installation

2.2.1. Installation Warnings

- 1) This machine is specially designed for indoor use. Please do not install or use it outdoors.
- 2) Please do not install it in place that cannot bear the weight of this product or in places that are inclined or uneven.
- 3) Do not use or store combustible, flammable, or volatile substances (e.g., thinners) near or inside this product.

2.2.2. Power Supply Connection



Figure 2-1 Power and External Display Connection

Warning: Voltage Compatibility
North American versions (IMC20-US & IMC20-CAD): 110V AC ±10% only.
European version (IMC20-EUR): 220V AC ±10% only.
Using incorrect voltage will cause permanent damage.

3.0. Display and Operational Interface

3.1. Display Appearance

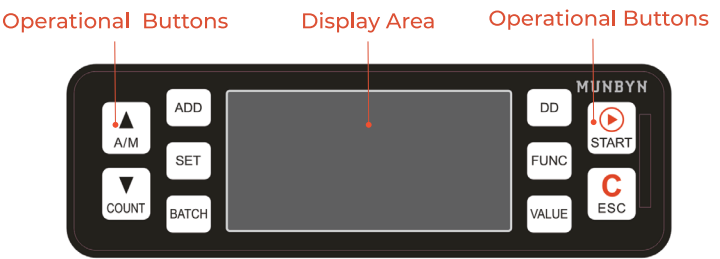


Figure 3-1 IMC20-US / IMC20-EUR Display Appearance



Figure 3-2 IMC20-CAD/IMC20-UK Display Appearance

3.2. Operational Instructions for Function Buttons

Table 3-1 Function Buttons

	“A/M” button Press to choose MANUAL or AUTO counting mode. In AUTO mode, counting will begin as soon as bills are placed in the hopper. In MANUAL mode, counting will begin when the user presses the “SATRT” button.
	“COUNT” button press to turn on / off the COUNT function
	“ADD” button press to turn on / off the ADD function
	“BATCH” button press to turn on / off the BATCH function

	"DD" button press to turn on / off the DD (Width detection) function.
	"FUNC" button press to turn on / off UV, MG detection methods
	"VALUE" button press this button to enter total value calculation mode by denomination (USD and EUR denominations supported). Keep press this button for 3 seconds to exit the function.
	"START" button press this button to start the counting
	"ESC" button press this button to exit the counting
	"CUR" button press this button to switch among three currencies: USD, EUR, and CAD. Currency Support: ● IMC20-US: USD ● IMC20-CAD: USD/CAD ● IMC20-EUR: EUR only ● IMC20-UK: GBP/EUR/USD

3.3. Display Interface

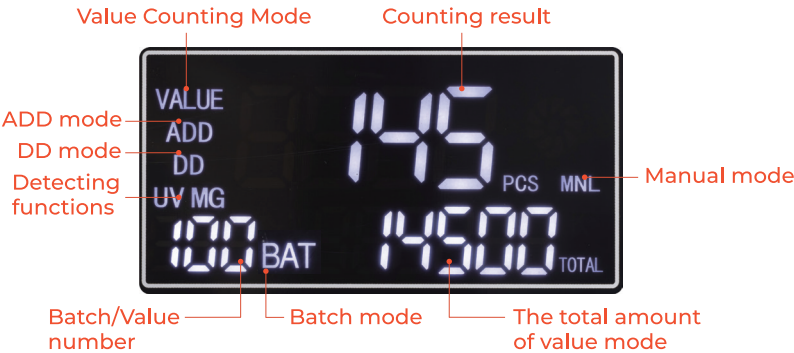


Figure 3-2 Display Interface

4.0. Operating Instructions

4.1. Start-up

Turn on the power switch after connecting the machine to power supply. Please wait patiently for about 10 seconds, and the machine will spin the banknote processing wheel several times to conduct a self-check, and then enter the main interface as shown in Figure 4-1.



Figure 4-1 Banknote Placement Steps 1

4.2. Banknotes Placement

Banknotes need to be put orderly and placed in the hopper as shown in the following.
1) Place the bills neatly.



Figure 4-2 Banknote Placement Steps 1

2) Put the bills to the hopper as shown in Figure 4-3.



Figure 4-3 Banknote Placement Steps 2

3) Flip the bills in the direction as shown in Figure 4-4.



Figure 4-4 Banknote Placement Steps 3

4) The bills will automatically slide into the hopper after flipping.



Figure 4-5 Banknote Placement Steps 4

NOTE: The machine will stop counting when the quantity of the bills in the stacker reaches 150.

4.3. Operating Modes

4.3.1. Auto/Manual Mode

- The default mode is Auto mode. By pressing the "A/M" button to switch the counting mode between Auto and Manual.
- In Auto mode, the IMC20 starts counting automatically as soon as the bills are placed in the hopper.
- In Manual mode, the IMC20 will not start counting automatically; you must press the "START" button to begin each count.



Figure 4-6 AUTO Mode



Figure 4-7 Manual Mode



Figure 4-9 Batch Number Setting

4.3.2. Counting Mode

- To count bills, place them in the hopper. The IMC20 will start counting the bills and will move the bills from the hopper to the stacker as it counts them.
- The machine will stop counting when the hopper is completely emptied. The counted number of bills will be displayed on the LED screen. When the machine starts to calculate the new stack, two calculation results will appear on the screen. The upper count result is the calculation result of the new stack, and the lower count result is the count result of the old stack, as shown in the figure below.



Figure 4-8 Count Display

Placing additional bills in the hopper:

Please be sure the hopper does not accumulate more bills than it can hold (approximately 200 new bills), as this will cause jamming, and may lead to a motor failure.

NOTE:

In COUNT Mode, the machine will not activate the detection method. When the FUNC function is enabled, the number of errors will be included in the total count.

4.3.3. Batch Mode

- Pressing the "BATCH" button of the control panel, you'll get the batch number cyclically switched in a 100-50-20-10-1-null sequence. You can also increase the number of batches by pressing the "A/M" button and pressing the "COUNT" button to reduce the number of batches. The batch quantity will be displayed on the screen.

The machine will start counting automatically once bills are placed in the hopper. As soon as the machine counts the desired batch quantity, it will stop. The screen will show the number of bills in the stacker. When the stacker is emptied, the machine will automatically start counting the next preset batch quantity.

NOTE:

- 1) In the BATCH Mode , When the FUNC function is enabled, the number of errors will be included in the total count.
- 2) BATCH Mode cannot be used in conjunction with VALUE Mode .

4.3.4. ADD Mode

- In this mode, the machine enables you to count multiple stacks while keeping track of the total number of bills counted.
- To switch to adding mode, press the ADD button. The ADD indicator will be lit, showing this mode active.
- Place the bills in the hopper. The machine will start counting automatically. The total number of bills counted will be displayed on the screen.
- Empty the stacker, and refill the hopper. The machine will continue counting, adding the new count to the total count.
- To continue adding without emptying the stacker, just refill the hopper. The machine will continue counting, adding the new stack of bills to the partially full stacker. Please ensure you do not accumulate more bills than the stacker can hold.

NOTE:

- 1) In the ADD Mode, When the FUNC function is enabled, the number of errors will be included in the total count.
- 2) ADD Mode can be used in combination with BATCH Mode or VALUE Mode.
- 3) IMC20 does not support the simultaneous use of ADD Mode , BATCH mode, and VALUE Mode

4.3.5. Detection Mode

- The FUNC button controls the inspection mode of the machine. Pressing FUNC button can turn off UV and MG detection in sequence. When all detection modes are turned off, the machine can only count the number of bills. Pressing FUNC button again can turn on all detection modes.

Note: This device does not support counterfeit detection for GBP.

NOTE:

Denomination Options:

IMC20-US: 1/2/5/10/20/50/100 USD

IMC20-CAD: 5/10/20/50/100 USD & CAD

IMC20-EUR: 5/10/20/50/100/200/500 EUR

IMC20-UK: 5/10/20/50 GBP, 1/2/5/10/20/50/100 USD, 5/10/20/50/100/200/500 EUR

4.3.6 Value Counting Mode

- This mode requires manual denomination selection and calculates the total by multiplying counted bills (single denomination per session).
- To activate this function, press the "VAL" button. In USD mode, continue pressing the VAL button to select 1, 2, 5, 10, 20, 50 or 100 denominations.
- Keep pressing VAL button for 2 seconds to exit this function.



Figure 4-10 VALUE Mode

NOTE:

When the FUNC function is enabled, fake banknotes will be identified and not counted in the counting results and total value.

5.0. Detection Features

5.1. Counterfeit Bill Detection

5.1.1. UV Detection

- The IMC20 is able to check for UV counterfeit bills using ultraviolet sensor. Press the FUNC button several times to select on and off, refer to section 4.3.5 for details.
- The counter will beep and stop counting when a UV counterfeit bill is detected, and an 'E10' message will be displayed. To continue counting, remove the suspicious bill, which will be the last one in the stacker, and press the "START" button. The counter will start counting again, and will not add the counterfeit bill to the count. This feature allows you to continue operation without losing count, and is especially time-saving in the adding mode.

5.1.2. MG Detection

- The IMC20 is able to check for MG counterfeit bills using magnetic sensor. Press the FUNC button several times to select on and off, refer to section 4.3.5 for details.
- The counter will beep and stop counting when an MG counterfeit bill is detected, and an 'E72' message will be displayed. To continue counting, remove the suspicious bill, which will be the last one in the stacker, and press the "START" button. The counter will start counting again, and will not add the counterfeit bill to the count. This feature allows you to continue operation without losing count, and is especially time-saving in the adding mode.

5.2. Chain Note Detection

- 1) The IMC20 utilizes a self-checking system that alerts you in rare cases when several notes pass through the counting mechanism at once.
- 2) The counter will beep and stop counting when a chain note is detected, and a 'E8X' message will be displayed. To clear the error, all bills must be removed from the stacker. The screen will automatically be reset. All bills in the stacker must then be placed back in the hopper and recounted.

5.3. DD Detection

- 1) The IMC20 incorporates bill size detection, which alerts you when a bill is narrower than others. This feature helps you identify torn and folded bills. This feature is activated by pressing the "DD" button.
- 2) Through this function, the width of the first counted banknote will be memorized, and if a wider one or narrower one is detected (width difference must be more than 5mm), it will stop counting and emit beeping sound. The display will show the message 'E8X'. The bills in the error count will be added to the count result.

TIPS:

It is recommended to enable the combined use of UV and MG detection in DD Mode.

NOTE: Don't count the EUR and GBP at the same time in this mode.

6.0. Maintenance and Troubleshooting

6.1. Factory Setting:

Power off, press "VAL" "START" 2 buttons at the same time and then turn on machine, when the external display show "DEFAU", it means machine restore to factory settings.

6.2. Error Code and Solution

The description of the error codes and the related handling methods are shown in table 6-1.

Table 6-1 Error Code

Error code	Reason	Solution
E10	Fake note detected by UV	Remove the fake note from the stacker, press "START" to continue
E72	Fake note detected by MG	Remove the fake note from the stacker, press "START" to continue
E8X	Chain note or different width note detected	Remove the double note from the stacker, press "START" to continue
E4X	Half note detected	Remove the half note from the stacker, press "START" to continue
CE1	Problem with the UV sensor	Clean the sensor or replace it
CE2	Problem with code disc sensor or big motor	Replace the sensor or big motor
CE3	Problem with left counting sensor	Clean the sensor or replace it
CE4	Problem with right counting sensor	Clean the sensor or replace it
CE5	Problem with hopper sensor	Clean the sensor or replace it
CE7	Problem with MG sensor	Replace the MG sensor
CE8	Problem with stacker sensor	Clean the sensor or replace it

Generally speaking, most of the above errors be caused by dust or dirt inside of the machine, so keeping the machine clean is highly recommended.

6.3. Hopper Plate Adjustment

- When banknote feeding is unsmooth or banknote counting is inaccurate, it can be solved by adjusting the vertical adjusting screw as well as the gap between the resistance rubber and rubber wheel. Then you can put in a banknote and hold, if you feel the pull, the machine is workable.

- Turn it clockwise to decrease gap in order to add friction (tight).
- Turn it anticlockwise to increase gap in order to reduce friction (loose).



Figure 6-1 Adjustable Screw



Figure 6-2 Feeding Gap Adjustment with One Banknote

6.4. Common Trouble and Solution

Before repair, please check the problems below.
NOTE: Before troubleshooting, please turn off the power switch and unplug the outlet.

Table 6-2 Common Trouble and Solution

Not working	
Check if the plug is well inserted into socket	A close-up photograph of the power plug being inserted into the socket. A red arrow points to the plug, which is labeled "Bill Counter Model: IMC20-UK CE FCC RoHS Made in China".
Check if the power fails or fuse burn out	A close-up photograph of the power switch and fuse. A red arrow points to the power switch, and a red circle highlights the fuse. A hand is shown holding the fuse, and a small white label reads "SKU: IMC20-GBP-UK 50Hz 0.8A".

Fail to start or stop normally	
Feeding Sensor covered in dust? Clean	A close-up photograph of the feeding sensor. A red arrow points to the sensor, which is labeled "Feeding Sensor".
Is feeding sensor not in connection with electric circuit? Check and connect	A close-up photograph of the feeding sensor connection. A red arrow points to the connection, which is labeled "Feeding Sensor".
Counting Error	
Hopper position adjusted improperly?	A close-up photograph of the hopper position adjustment. A red arrow points to the adjustment, which is labeled "Hopper position".
Counting sensor is covered by dust?	A close-up photograph of the counting sensor. A red arrow points to the sensor, which is labeled "Counting sensor".

False Alarm

Check if sensor is covered by dust?



6.5. Maintenance

Do not operate the unit in areas with high temperature or high humidity since it may cause the machine to refuse to work or prevent it from counting accurately.

- When not using the unit for a long period of time, remove the power plug from the wall outlet.

- Never operate the unit under strong light.

- Clean the machine frequently after switching it off and unplugging of the machine.

- Do not use this product in areas where it may be exposed to water or other liquids.

- Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

7.0. Technical Parameters

Table 7-1 Technical Parameters

Measurement	276×226×140mm
Size of Countable Notes	50×110-90×170 mm
Thickness of Countable Notes	0.075-0.15 mm
Net Weight	4.0 KG
Counting Speed	1100 pcs/min
Hopper Capacity	150 notes
Stacker Capacity	150 notes
Power Supply	IMC20-US & IMC20-CAD: 110V AC±10%. IMC20-EUR&IMC20-UK: 220V AC±10%. Note: Using incorrect voltage will cause permanent damage.
Detection	UV, MG, IR, MT (IR and MT are enabled as default)

8.0. Contact us



Scan the QR code for Facebook and WhatsApp online chat



Scan the QR code to participate in the Extended Warranty Programme

E-mail: support@munbyn.com

WhatsApp: +86 181 4489 8200

Phone: +1 (628) 229 3612

Support Hours: 24 hours a day, Monday to Friday

MUNBYN provides a 24-month warranty and free lifetime service.

If you encounter any issues with the product, please contact the MUNBYN team for prompt troubleshooting assistance or a replacement.

9.0. FCC Caution

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.