

User Manual



CMX02

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Alterations or any other changes on the product are not allowed without the permission of the manufacture.

The warranty applies provided the product has been handled properly for its intended use and in accordance with the user manual.

The guarantee conditions may set out by our representatives in the country of sale apply. Details regarding same may be obtained from the dealer from whom the appliance was purchased.

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1. Introduction and intended use

The CMX02 is a heavy duty high speed counter with automatic feeding system for coins and tokens. It is designed to count big volumes of a very wide range of coin sizes. The pre-selected coin size will counted while smaller coins are being rejected without slowing down the counting speed. The count result can be accumulate in value or piece. Besides variable bag stops and count memory the CMX02 offers many useful features to meet your requirements.

The general usage of the CMX02 is to process coins or tokens in the specified dimensions. Only use the coin counter in accordance with the instructions in this manual. The supplier is not responsible for any damage occurred by improper usage.

This manual gives the user detailed information about the usage of the machine and must be read before usage of the CMX02.

1.1 Safety information

Always follow basic safety precautions when using this product to reduce risk of injury from fire or electric shock.

Observe all warnings and instructions marked on the product.

Do not install or use this device outdoors, near water, or when you are wet.

Install the product securely on a stable surface. See also chapter "Installation"

Do never exceed the specified load of the bag, given in chapter "Installation". Otherwise the machine can tilt and drop down.

Do not touch the coin disc when it is in operation. Take extra care of long hairs or loose clothing (e.g. tie). If it is caught in the machine, switch off the power immediately.

Unplug the CMX02 from wall outlets before cleaning.

Do not clean the machine with chemical cleaner and do not use blowing gas. Otherwise parts can be damaged or explosion / flash may occur.

If the product does not operate normally, see chapter "Troubleshooting".

Do not operate the machine when covers are removed. Servicing must be carried out by qualified service personnel.

1.2 Warnings

On the machine and in this manual standardised warning symbols are used. These are explained as followed:



Warning

Warning of possible danger, such as moving parts.



Electrical danger

Warning of possible injuries through electrical shocks



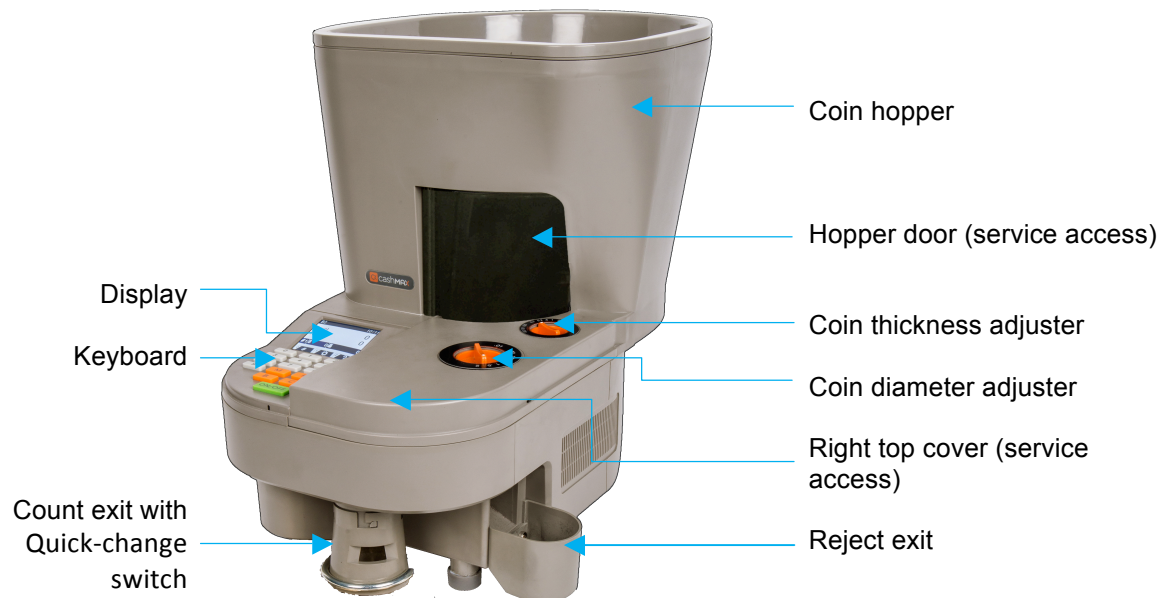
Risk of tilting

Warning of possible device tilting.

Do not exceed the weight of 9 kg in the counting bag and 7 kg in the reject bag. (see also Chapter "Installation")

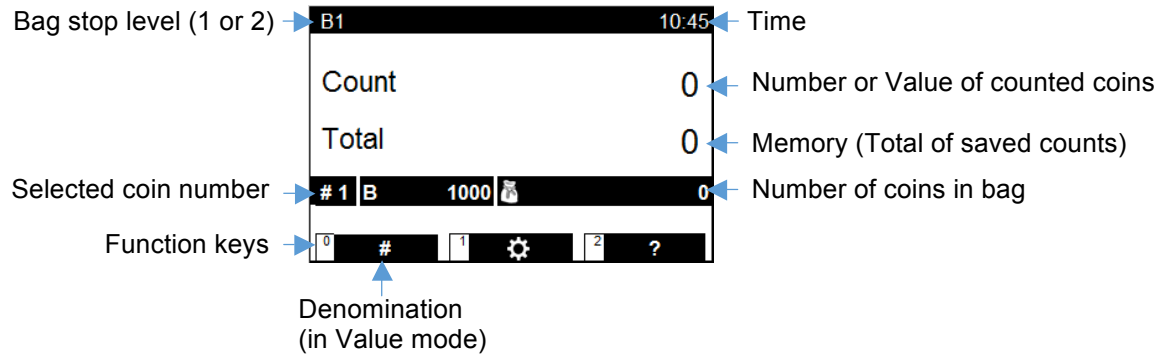
2. Machine overview

2.1 Front / Rear view



2.2 User interface

2.2.1 Display



2.2.2 Key chart

Key	Description	Normal key stroke	3 seconds key stroke
ON/ OFF	Start/ Stop	Start or stop counting	
M	Add memory	Add the count to the memory	
P	Print	Print ticket	
B	Batch stop	Set batch stop	Clear bag content
C	Clear	Delete count result and bag content	Delete memory
0	Denomination	Select new denomination or coin number. Show memory total.	
1	Setting	Enter setting menu	
2	Help	Show key functions	

3. Installation

3.1 Environment and working space

Make sure the environment does comply with the specifications given in chapter 1.1 and 11.

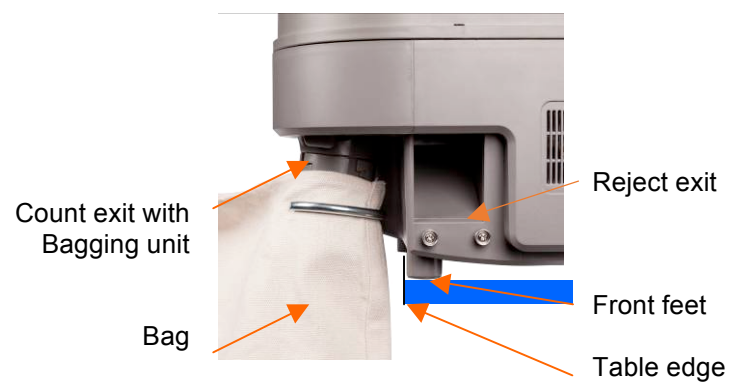
Make sure the CMX02 has proper electrical grounding.

The main fuse protection must be minimum 1,5A.

Install the CMX02 where no one can step on it or trip over the line cord, and the line cord cannot be damaged.

The seat area must be stable, solid, and smooth.

The bagging unit of the machine must protrude the table edge so that the connected bag hangs freely. But take care that the front feet of the CMX02 remain in full size on the desk.



When the CMX02 is on its working position, adjust the support stand to the same level with the table surface.



3.2 Bag, box installation

The CMX02 has one counting and one reject exit. The counting exit is provided to clamp a coin bag on it, but can be also used for the optional tubing kit. On the reject exit a cup or a bagging unit can be attached. When using the reject bagging unit the CMX02 must be placed on the left side of the desk, so the reject bag hangs freely.



Warning of possible device tilting.

Do not exceed the weight of 18 kg (about 2000x 2€ coins) in the counting bag and 7 kg (about 800x 2€ coins) in the reject bag. Install a support shelf where the bag rest on it, if higher weights are in use.



Connect the reject cup or



reject bagging unit



A bag is fixed by: Move the metal ring upwards, wrap the bag around the tube and clamp it by moving down the ring.

4. Setting the coin size

Before you start counting, set always the thickness and diameter according the coin size you want to count.

Note: Smaller coins will rejected but larger coins stay in the machine and may cause jams.



Thickness adjuster

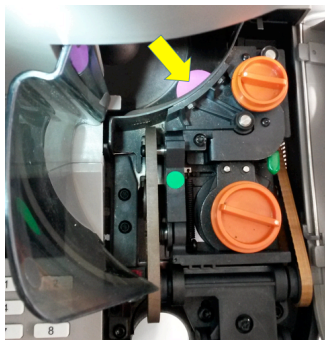
Diameter adjuster

If tokens or other coins need to be count, those are not marked on the scale, set the correct size as follow:

Note: Do not open or close the Right top cover with open Hopper door!

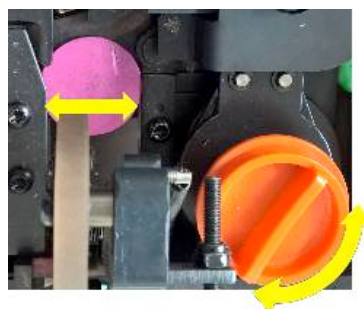
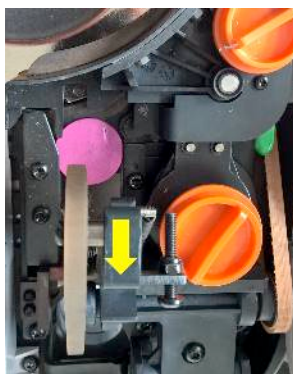
a) Thickness

Open the right top cover and the hopper door. Turn the Thickness adjuster to maximum. Place the token under the thickness block and turn the adjuster slowly down until it gently touch the token. Turn the adjuster backward until the token moves freely, without resistance, between disc and thickness block.



b) Diameter

Lift up the transport belt. Turn the Diameter adjuster to maximum. Place the token on the transport track and turn the adjuster slowly narrow until it gently touch the token. Turn the adjuster backward until the token moves freely and has side clearance of about 0.4 mm.



5. Coin preparation

Before loading coins into the machine inspect and remove all foreign objects. Also sort off damaged, lubricated or sticking coins.

6. Operation

Make sure the hopper door is closed and fill the coins in the hopper. Before counting make always sure the selected settings, denominations and count memories meet your approbations.

6.1 Counting

Press "On/Off" key to start the count, or push the coin exit to activate the Quick-change switch. The CMX10 shows the counted quantity or value. When the count is finished the CMX10 stops automatically. (You can also press "On/Off" or push again the coin exit to stop the count manually.)

Piece counting

B1	10:45
Count	100
Total	0
# 1 B	1000 100
#	?

Value counting

B1	10:45
Value	200.00
Total	0.00
# B	1000 100
#	2.00 ?

or

It is now possible to

- P: Print the count
- M: Save the count into the memory
- C: Clear the count and bag content
- C (long): Clear the count memory of this denomination
- On/Off: Count more coins

The CMX02 stops with message "B1 Stop" (or "B2") if the pre-selected stop is reached. The count will automatically transferred to the memory and the bag content counter will set to zero. Replace the bag with an empty one.

Note: Value or piece counting is selectable in Setting menu, option "Counting mode"

6.2 Select Denomination

Adjust the thickness and diameter knob to the desired coin size and mount an empty coin bag on the counting exit.

Press the "0" key several times until the requested denomination / coin number appears.

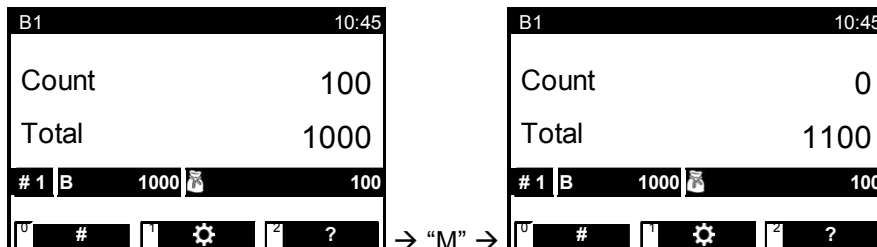
If the count or bag content were not zero, there will be a warning message: "Are you sure you want to proceed". If you press "1" (Yes) the two counters will automatically cleared. With "2" (No) the coin number will not be changed.

After the last coin number "9" a total symbol "Σ" appears. It represents the sum of all saved counts and cannot used for counting.

6.3 Memory

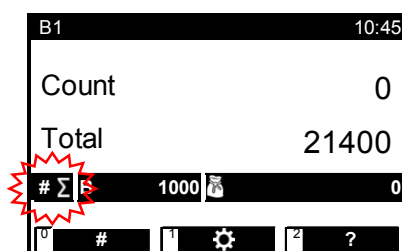
6.3.1 Add Memory

The CMX02 adds automatically full bags to the memory. When a count is finished and a bag stop is not reached, it is possible to accumulate the count to the memory by pressing “M”. After pressing “M” the Count/ Value is reset to “0”.



6.3.2 Show Memory

Press the “0” key several times until the Total symbol “Σ” appears. Here you can see the sum of all saved counts.



Press

P: Print the total

C (long): Clear all totals

0: Select a denomination

Note: Uncomplete counts being not saved with “M” are not in the Memory

6.4 Bag Stop

6.4.1 Select bag stop

The CMX02 has three stop levels. The active stop level type is defined in the “Setting” menu.

Batch 1: Individual stop number for every denomination

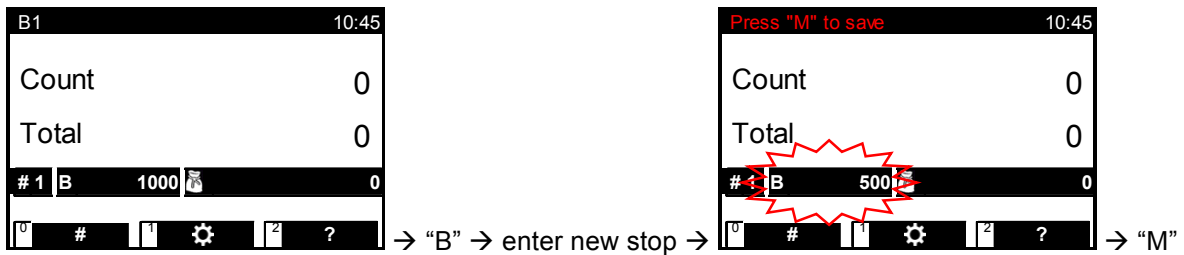
Batch 2: One stop number for all denominations

Off: No stop

If Batch 1 or 2 is activated it is possible to change the pre-defined stop during normal count.

Press “B” and enter with the numeric keypad a new stop between 0...99999. Press “M” to save the new stop.

Alternative standard batch numbers (500, 1000, 2000, 5000, 10000) can be used by pressing “B” several times.



If you change a bag stop and the bag content is not zero, there will be a warning message “Do you want to clear count and bag?” Press “1” (Yes) to clear the two counters or “2” (No) to count further without clearing

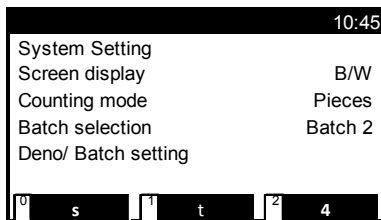
Note: A steady stop in “Batch 1” must be entered in the Setting menu, option “Deno/Batch setting”.

6.4.2 Clear incomplete bag

When you install an empty bag without a request of the CMX02, you must clear the Bag content. Otherwise the counter does not start with “0”, which may lead to a wrong bag stop. To delete the bag content hold the “B” key for about 3 seconds.

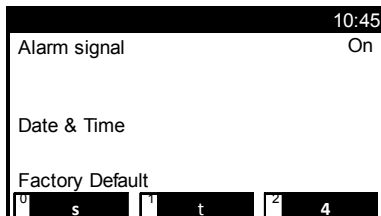
7. Setting menu

To enter the Setting menu press the “1” key. Use “0” to scroll up, “1” to scroll down and “2” to enter or change the selected option. To return to the main setting menu or go back to counting press the “On/Off” key.



7.1 System Setting

Currently there are three sub menus available.



Alarm signal: ON (beep always) / Off (no beep) / Error (beep only by error)
 Date & Time: Enter numbers with numeric keypad and press On/Off to save and exit
 Factory Default: Press “2” (Enter) and confirm with “1” to reset all settings (e.g. denom. values and bag stops)

7.2 Screen display

Press "2" to switch between Black/White and Colour display

7.3 Counting mode

Press "2" to change between Piece or Value counting

7.4 Batch selection

The CMX10 has three stop levels:

Batch 1: Individual stop number for every denomination

Batch 2: One stop number for all denominations

Off: No stop

7.5 Deno/ Batch setting

In this menu the coin values and batch stops of B1 are configured. Press

"0" to scroll through the channels

"1" to toggle between denomination and batch stop number

"2" to enter a new number

"M" to save a new number

10:45		
Channel	Denom	Batch1
1	10.00	20
2	5.00	20
3	2.00	20
4	1.00	25
5	0.50	50

0

s

1

ü

2

4

8. Maintenance

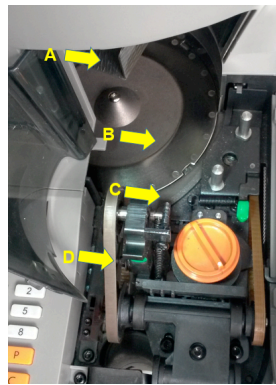
For optimum performance and error free operation, cleaning must be performed regularly. High usage requires more frequent maintenance!

CAUTION: Always turn off and unplug the power cord before maintaining the CMX02.
Do not open or close the Right top cover with open Hopper door!

Daily cleaning: Remove the dirt from the coin track. Wipe the dust away under the counting sensor.
Use a soft brush and a lint-free cloth.

Procedure:

- a. Open the right top cover
- b. Open the hopper door
- c. Lift up the coin transport belt.
- d. Move the locking lever of thickness block to the right and pull out the block
- e. Clean the feed plate (A), disc (B), transport track (C) and belt (D).
- f. Clean the count sensor (E)



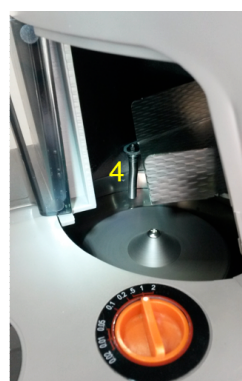
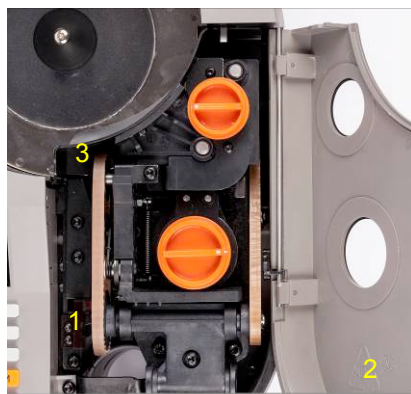
9. Troubleshooting

In case of an error event, the CMX02 stops and shows an error message. The messages and locations are explained below. When the error is solved, confirm the message and press On/Off to count further.

When the error appears repeatedly and you cannot fix that problem, please call the service and tell them the error message.

Pos	Error code	Error description	Removal
	Are you sure you want to proceed?	When selecting another coin number or denom., the current count and bag content will be deleted.	Press "1" (Yes) to change the denomination and delete the current count and coins in bag. Press "2" (No) to cancel the operation and count further or save the current denom.
	B1 (or 2) stop	The pre-set bag stop for the current coin number/ denomination is reached.	Replace the bag. Press START or the Quick-change switch to count further. <i>Note: The complete count is automatically saved in the memory and the bag counter is set to zero.</i>
1	Coin under sensor	There are coins or foreign bodies jam under the coin counting sensor	Open the right top cover. Lift up the transport belt. Clean the count sensor and remove jammed objects. Control the coin diameter setting.
	Enter denom. value before	There is no value configured for the selected denomination	Select another denomination or enter a value in the "Deno/ Batch setting" menu.
	Motor does not start (w/o error message)	The total memory is selected.	Select a denomination with the "1" key.
	Please empty the bag	When clearing the count result, also the bag content will be set to zero.	Empty the bag. Press START or the Quick-change switch to repeat the count.
	Press "M" to save	To confirm and activate the new setting.	Press "M" to confirm and activate the new setting.
2	Side cover open	The right top cover is not closed.	Close the cover.
	To activate, count and bag will be cleared	A new bag stop was selected but the counters weren't zero.	Press "1" to clear the count and bag content. Press "2" to cancel. The stop before is still active.
3	Transport jam	The coin transport does not operate. Coins or foreign bodies jamming on the disc or under the transport belt.	Open the right top cover. Lift up the transport belt. Remove jammed objects. Control the coin diameter and thickness setting. Check that the motor switch is activated when the right top cover is closed.
	Value overflow. Clear counter.	The counted value or memory does exceed the maximum (99,999.99)	Print (if available) and then clear the counter or memory.
4	Coin feeder does not start	The disc full sensor is blocked.	Check and remove the disc full sensor

Error locations:



10. Certifications



EUROPEAN DECLARATION OF CONFORMITY

In accordance with EN ISO 17050-1:2004

We:

SOUTH Automation Int. GmbH

Waldeckerstr. 6

64546 Mörfelden-Walldorf

Germany

declare under our sole responsibility that the product

Product name: **Coin counting machine**

Product type: **CMX02**

Serial number:

to which this declaration relates is in conformity with the following standards

Low Voltage Directive 2014/35/EU

EMC Directive 2014/30/EU

Applied harmonized standards:

EN55022: 2010+AC:2011,

EN61000-3-2:2014,

EN61000-3-3:2013,

EN55024: 2010

EN60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013

Date of issue: July 2016

Place of issue: Mörfelden-Walldorf

Signed by:

Name: Shiguo Cheng

Position: Managing Director

Martin Blankenburg

Technical Director

This product meets furthermore the requirements of the EC directives

RoHS 2011/65/EC

WEEE 2002/96/EC

11. Specifications

Physical and electrical specifications		Process specifications and features	
Mains input voltage	100 to 240 VAC, 50/60 Hz	Count modes	Piece and Value counting (9 denominations, free programmable)
Power consumption	60 W Peak 22 W Operation 8 W Standby	Speed	Up to 3,400 coins per minute
Acoustic noise level	LpA < 84 dB(A) (uncertainty: 2) LpA Standby < 1 dB(A)	Hopper capacity	Up to 10.000 coins
Operating temperature	10° C to 35° C (50F – 95F)	Start/Stop	On/Off key Quick-change switch Foot pedal
Operating humidity	20% to 80% RH (non-condensing)	Bag stop	2 levels 0 – 99,999 coins Individual stop per denom.
Dimensions Height Depth Width	mm 385 465 285	Memory	Total and bag content
Weight	9.5 Kg	Connectivity	LAN (Ethernet), USB 2.0, RS232, Start/stop connector
Coin size range	Diameter: 14 - 34 mm Thickness: 0.8 – 3.8 mm	Software Update	SD-Card
Display	3" colour LCD	Options	see „Accessories“

12. Accessories

Included in delivery: Power cord, user manual, number scales, reject box and reject bagging unit.

The following accessories are orderable from SOUTH Automation Int. GmbH or your local dealer:

- 21001 Reject bagging attachment
- 21003 Tubing set
- 21004 Foot pedal
- 22305 Cleaning set
- 22306 Printer
- 22307 Paper rolls for printer
- 22308 RS232 communication cable
- 22309 External display