

CMX01

User Manual



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Alterations or any other changes on the product are not allowed without the permission of the manufacturer.
The warranty applies provided the product has been handled properly for its intended use and in accordance with the user manual.

Table of Contents

Introduction and Intended Use..... 3

Safety Information 3

Warnings 3

 Front / Rear View 4

User Interface 5

Installation 6

Bag, Box Installation 7

Setting the Coin Size 8

Manual Adjustment for Token Counting 8

Coin Preparation 9

Operation 9

 Memory 10

 Bag Stop 11

 Clear incomplete bag..... 11

Settings Menu 12

 System Setting..... 12

 Screen display..... 12

 Counting mode 12

 Batch selection 12

 Value (Denom) / Batch Setting..... 13

Maintenance 14

Troubleshooting..... 15

Certifications..... 16

Specifications 17



Introduction and Intended Use

The CMX01 is a high-speed counter for coins and tokens. It is designed to count a very wide range of coin sizes. The pre-selected coin size will be counted while smaller coins are being rejected without slowing down the counting speed. The count result can accumulate in value or pieces. Besides variable bag stops and count memory the CMX01 offers many useful features to meet your requirements.

The general usage of the CMX01 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 using the CMX01.

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" Never exceed the specified load of the bags as itemized in this manual. Failure to do so, may result in damage and or user injury.

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

Ensure to Unplug the CMX01 from wall outlets before cleaning.

Do not clean the machine with any chemical cleaners and do not use compressed air, as damage to the machine and or parts may occur.

If the product does not operate as normal, see the chapter for "Troubleshooting".

Do not operate the machine when covers are removed.

Servicing must be carried out by qualified service personnel only.

Warnings

On the machine and in this manual standardized warning symbols are used. Their meanings are as follows:

	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")

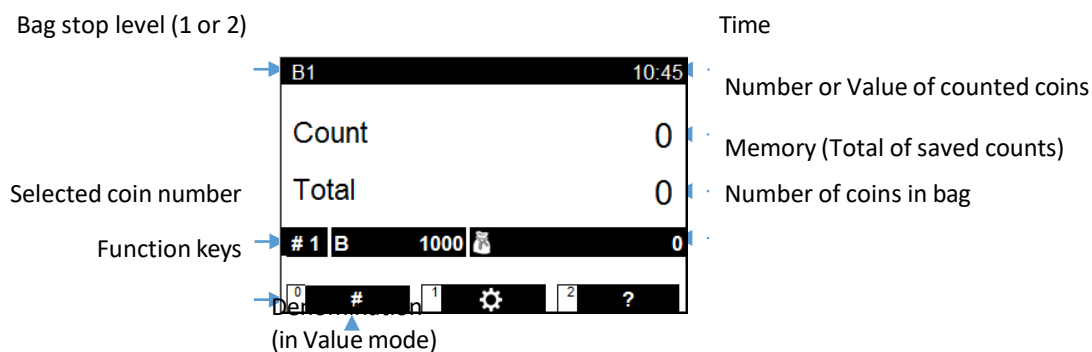


Front / Rear View



User Interface

Display



Key Chart

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



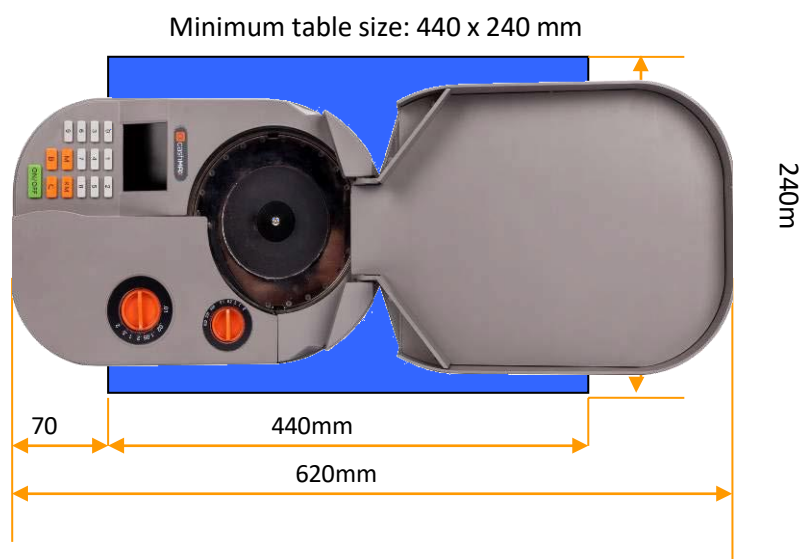
Installation

Environment and working Space

Make sure the environment does comply with the specifications given. Make sure the CMX01 has proper electrical grounding. The main fuse protection must be minimum 1.5A.

Install the CMX01 where no one can step on it or trip over the line cord, and the line cord cannot be damaged. The seating 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 ensure the front feet of the CMX01 remain in fully resting on the table/work surface.



Bag, Box Installation

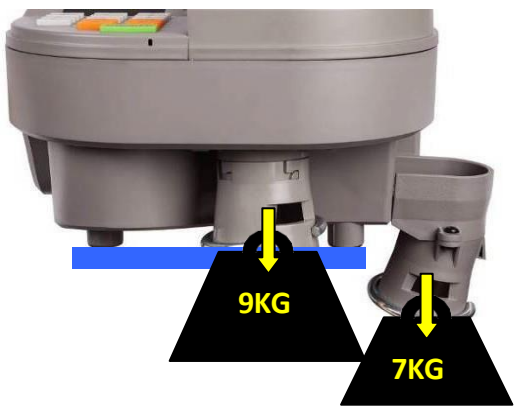
The CMX01 has one counting and one reject exit. The counting exit is provided to clamp a coin bag on but can be also used for the optional tubing kit. On the reject exit a cup or a bagging unit can be attached. When using the reject bagging unit, the CMX01 must be placed on the left side of the desk, so the reject bag hangs freely.



Warning of possible device tilting.
Do not exceed the weight of 9 kg (about 1000 x .25 coins) in the counting bag and 7 kg (about 800 x .25 coins) in the reject bag.

Connect the reject cup or reject bagging unit.

	
Reject Cup	Reject Bagging Adaptor



Setting the Coin Size

Before you start counting, ensure to set both the thickness and diameter dials to the correct denomination you are going to count. For alternate denominations or tokens, see Manual Adjustment for Token Counting.

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



Diameter adjuster

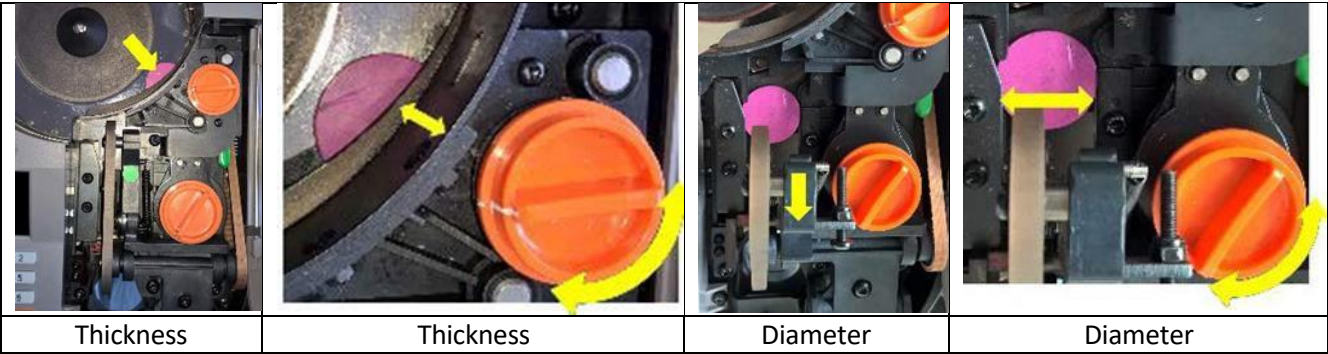


Thickness adjuster

Manual Adjustment for Token Counting

Thickness

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



Diameter

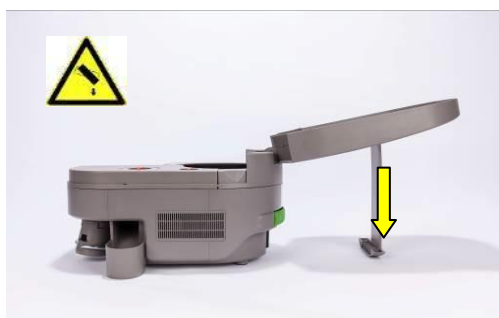
Lift up the transport belt. Turn the Diameter adjuster to maximum. Place the token on the transport track and turn the adjuster slowly until it gently touches the token. Turn the adjuster backward until the token moves freely and has side clearance of about 0.4 mm.



Coin Preparation

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

- Insert the coin guides on the tray.
- Make sure the support rod of the tray is vertical aligned.



Operation

Before counting make always sure the desired coin denomination is selected on BOTH dials.

Counting

Press “On/Off” key to start the count or push the coin exit to activate the Quick-change switch. The CMX01 shows the counted quantity or value. When the count is finished the CMX01 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
0	#		?

Value counting

B1		10:45	
Value		200.00	
Total		0.00	
#	B	1000	100
0	2.00	1	?

or

It is now possible to RM: 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 CMX01 stops with “B1 Stop” if the pre-selected stop is reached. The count will automatically transfer 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”

Select Denomination

Adjust both the thickness and diameter knobs to the desired coin denomination. and attach an empty coin bag on the counting exit.

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

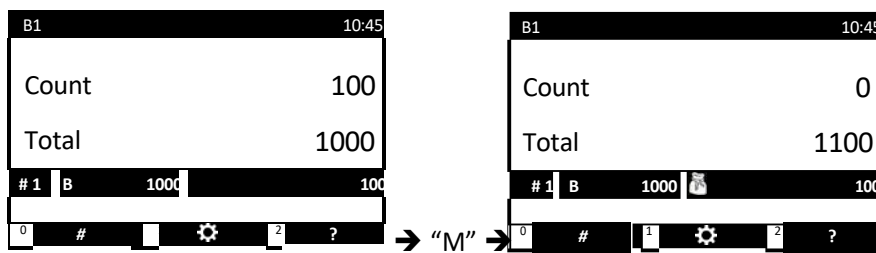
If the count or bag content were not zero, there will be a warning message: “Are you sure you want to proceed”. If you press “1” (Yes) the two counters will automatically be cleared. With “2” (No) the coin number will not change.

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

Memory

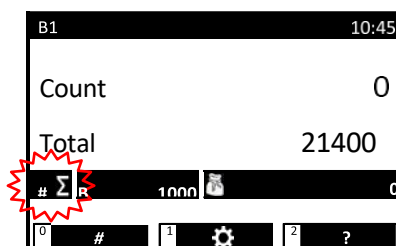
Add Memory

The CMX01 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”.



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

RM: Print the total C (long): Clear all totals

0: Select a denomination

Note: Uncomplete counts that are not saved with “M” are not in the memory.



Bag Stop

The CMX10 has three stop levels. The active stop level type is defined in the “Settings” menu.

Batch 1: Individual stop number for every denomination

Batch 2: One stop number for all

Denominations Off: No stop

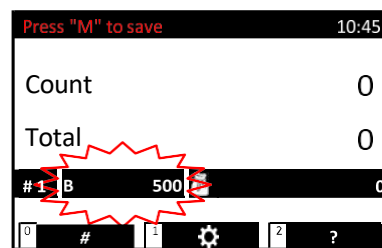
If Batch 1 or 2 is activated, it is possible to change the pre-defined stop during normal count.

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.



→ “B” → enter new stop → → “M”



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 Settings menu, option “Denom/Batch setting”.

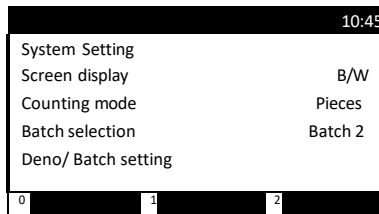
Clear Incomplete Bag

When you install an empty bag without a request from the CMX01, you must clear the Bag content, otherwise, the counter will not start with “0”, which may lead to an incorrect bag stop. To delete the bag content, hold the “B” key for about 3 seconds.



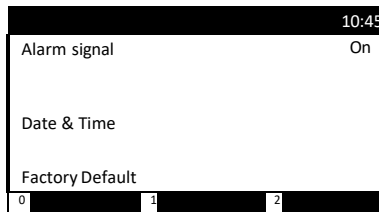
Settings Menu

To enter the settings 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.



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” and confirm with “1” to reset all settings (e.g. denom. values and bag stops)

Screen Display

Press “2” to switch between black & white and Color display

Counting Mode

Press “2” to change between Piece or Value counting

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

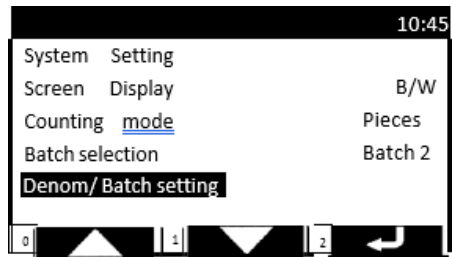


Value (Denom) / Batch Setting

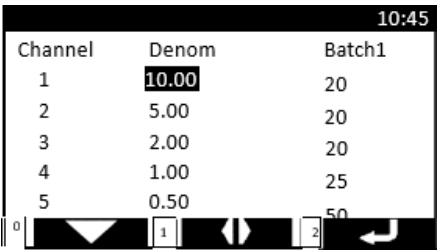
In this menu the coin values and batch stop of B1 are configured.

Using the keypad press the 1 key to enter the settings. ¹ 

Press the 1 Key to move the highlighted bar down to Denom/Batch setting



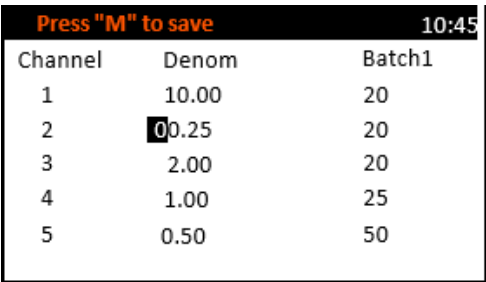
Press the 2 key to select the item and enter the menu as shown here:



The screenshot shows a table with 3 columns: Channel, Denom, and Batch1. The 'Denom' column has a highlighted bar under the value 10.00 for Channel 1. At the bottom, there is a keypad with buttons 0, 1, 2, and a return key.

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

Use the 0 key to move the selection highlighted bar down and use the 1 key to move the highlighted bar left or right to select an item you want to change. Press the 2 key to Enter the selected value to change it.



The screenshot shows the same table as before, but now the 'Denom' column has a highlighted bar under the value 00.25 for Channel 2. At the top, there is a message 'Press "M" to save'. At the bottom, there is a keypad with buttons 0, 1, 2, and a return key.

Channel	Denom	Batch1
1	10.00	20
2	00.25	20
3	2.00	20
4	1.00	25
5	0.50	50

Press "M" to set the value or batch to the correct setting. Example: 0025 for 0.25 coin.

Press the "M" to save the value. *Note: if a mistake is made you can press "C" which will clear the value. This clear feature works for both Denom and Batch mistakes.

After you have made all required adjustments, Press the ON/OFF to exit to the menu screen and press it again to enter to the main counting screen.



Maintenance

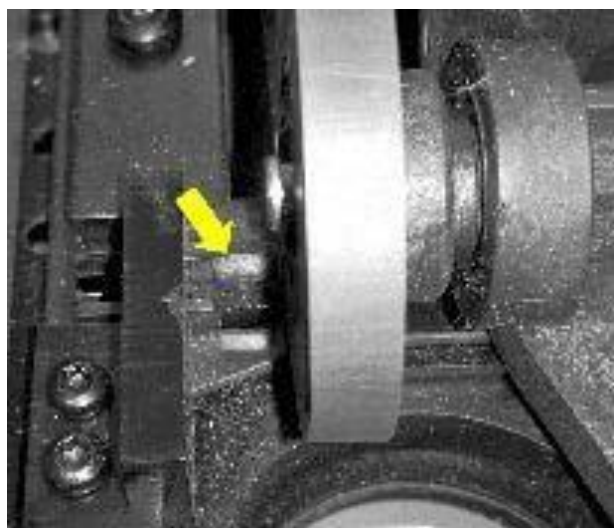
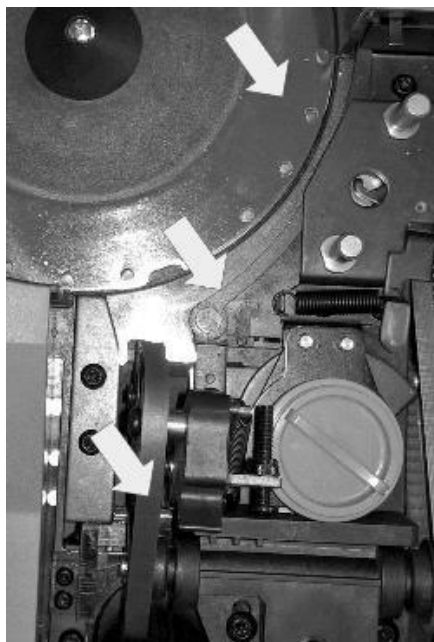
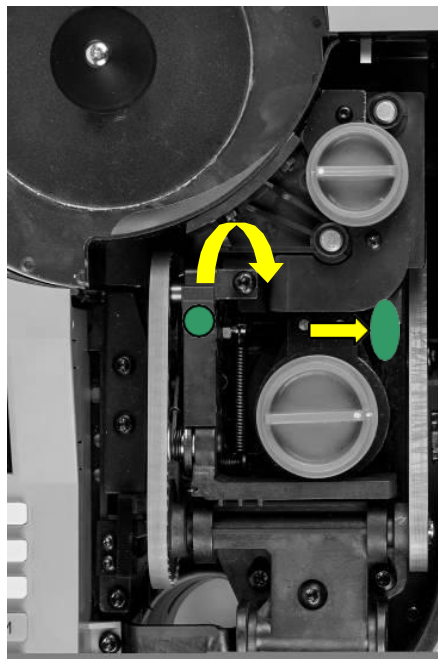
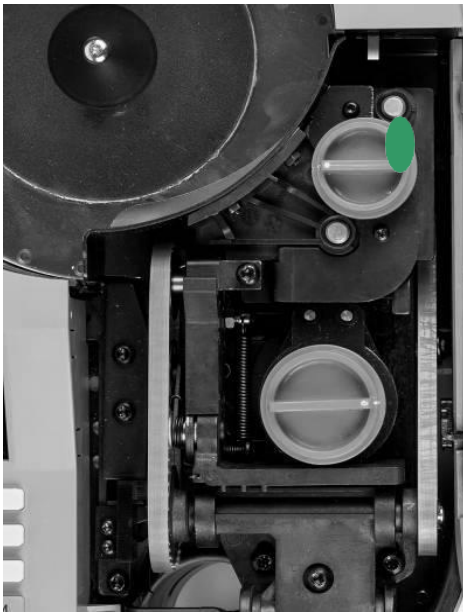
For optimum performance and error free operation, cleaning must be performed regularly.

The higher the usage, the more frequent cleaning maintenance!

CAUTION!

Always turn off and unplug the power cord before maintaining the CMX01.

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.



Troubleshooting

In case of an error event, the CMX01 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 continue to count. 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 "Denom/ 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 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 to 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.



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: **CMX01**
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: 13th of May 2015
Place of issue: Mörfelden-Walldorf

Signed by:

Name: Shiguo Cheng

Martin Blankenburg

Position: Managing Director

Technical Director

This product meets furthermore the requirements of the EC directives
RoHS 2011/65/EC - WEEE 2002/96/EC



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 < 79 dB(A) (Uncertainty: 2) LpA Standby < 1 dB(A)	Chute hopper capacity	1,500 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 (with closed chute) 190 350 235	Memory	Total and bag content
Weight	7.0 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" color LCD	Options	see „Accessories“

