# SC-MAX 500 / 500E / 600 — sem

#I01270 Français au verso


## INTRODUCTION

Thank you for purchasing the new SC-MAX Conversion Kit from SEM.

The new SC-MAX Conversion Kit allows you to modify your Standard Change-Maker change machine having a System 500, 500e, or 600 bill acceptor. The SC-MAX works well with one of the two following MDB bill acceptors: The MEI VN2632-D5M-CN or the Coinco VX73B34CA00 (Vantage).

Note that the original System 500 and System 600 bill acceptors can be found in many types of cabinet. The following instruction applies to the SC40, SC60 and RL (Rear Load) Series and, with a small physical modification, to the SC90 and SC100 Series. The new SEM circuit controls the entire machine and interfaces between the coin hoppers and the bill acceptor. It is possible to have up to four coin hoppers dispensing any type of coins, including tokens.

The installation does not require a strong technical background and only few basic tools are required. An average of 20 to 25 minutes is required to perform the installation.

The SC-MAX offers all the same functions that were available with the original bill acceptor and even more, including the sales of tokens, a full detailed audit available on the blue display or printed.

Tools required:
To complete the job, the following tools are required:
- 11/32" nut driver
- 3/8" nut driver
- 7/16" nut driver
- Big slot screwdriver

## DESCRIPTION

Your new SC-MAX Conversion Kits contains:
- An MEI VN2632-D5M-CN or Coinco VX73B34CA00 (may have been sold separately).
- A stainless steel exterior plate.
- An internal bill acceptor bracket.
- The SC-MAX circuit mounted on a plate.
- A 28-volt "empty" light indicator with its harness.
- One power supply.
- An MDB extension and a flat cable for the Mars Cashflow 330 coin acceptor.
- A plastic bag containing mixed nuts, two washers and tie-wraps.
- This instruction sheet and a programming flow chart sheet.

## COMPONANTS TO REMOVE

Take the audit reading before removing the bill acceptor otherwise it will be too late.

1. Shut main power OFF by unplugging machine from the wall outlet.
2. Disconnect all wires and cables from the bill acceptor.
3. Remove the bill acceptor and stacker. **Do not forget the bills!**
4. Remove the bill stacker bracket.
5. Remove the front black bezel held in place with 4 big slot screws.
6. Remove the internal bracket held in place with four 7/16" nuts
7. Remove the keypad and its bracket. Keep the communication wire as a spare for future use.

If you change the entire facing of the machine as seen above, you will have to remove the coin bezel and the lock cylinders as well. Remove the old vinyl while making sure there is no residue of glue remaining. Apply the new facing carefully. Make the necessary cuts. Re-install the lock cylinders and the coin bezel.

You can now start installing the SC-MAX.

## NEW COMPONANTS TO INSTALL

1. Take out all the elements from the box.
2. Locate the small 28-volt "Empty" indicator.
3. Pass it by the round hole of the stainless steel exterior plate.
4. Install this plate outside the machine.
5. Fix the internal support bracket in place.
6. Tight both plates with the 3/8" nuts included.

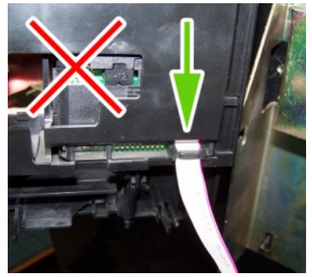
7. Place the SC-MAX circuit where the keypad and its support were, using the nuts and washers.
8. Install the MEI or Coinco bill acceptor using the 11/32" nuts.
9. Pass the cables making sure you do not damage them with the continuous opening of the door or the hopper tilting or any other moving parts. The cables are: the MDB communication, the "empty" light indicator and the flat coin acceptor cable. ***See note about the coin acceptor.***


10. Connect all the cables to the SC-MAX circuit as follow:
    - ⇒ The MDB communication.
    - ⇒ Black flat connector to the proper socket. (Careful as there is two sizes depending the age of the machine. One has 10 pins while the other has 11 pins. **Do not attempt to connect the 10-pin connector into the 11-pin socket.**
    - ⇒ Coinco 14-pin or **Mars 10-pin** coin acceptor.
    - ⇒ Hopper cable(s) to socket Hopper A, B, C, and D.
    - ⇒ The "Empty" indicator.
    - ⇒ 24-volt power from power supply.
11. The new power supply connects directly into the 120-volt outlet in the machine as seen next. If it is missing, you will have to install one. **ATTENTION: The 120-volt socket on the original power supply of the machine, where the hoppers are connected, is not an adequate source of power for the new SC-MAX kit.**

## Note about the coin acceptor

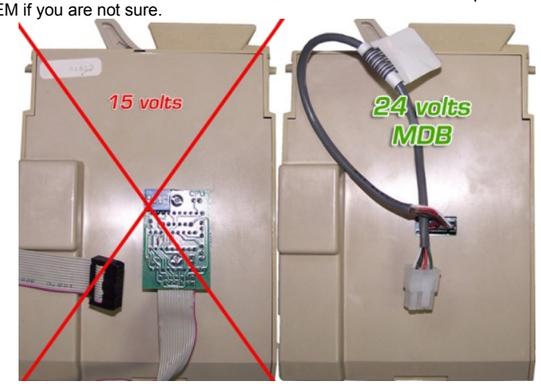
## MARS CashFlow 330

If your Mars Cashflow 330 coin acceptor is equipped with the small vertical interface to its right, this has to be removed. Coming with the SC-MAX is a small 10-pin flat cable as seen on the right.

## Coinco GX

The Coinco 15-volt that was connecting to a small interface on its back or halfway to the old bill acceptor MUST be replaced with a Coinco GX 24-volt MDB with its cable. It connects to the "Y" MDB harness of the bill acceptor. Contact SEM if you are not sure.




## PROGRAMMING

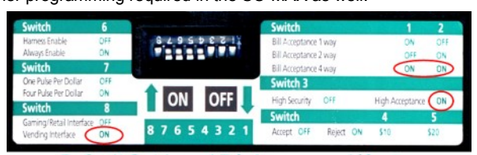
The SC-MAX offers you a full programming of its functions. This programming is achieved using the push buttons on the circuit and the blue LCD display. Another sheet comes with the SC-MAX Conversion Kit. It is an easy-to-follow flow chart.

## PROGRAMMING THE BILLS TO ACCEPT

Programming the bills to accept is done directly on the bill MEI acceptor. On one of the side of the bill acceptor is a green and white sticker surrounding the programming dipswitches. The switches are:

| | |
|---|---|
| 1-2 | Ways of insertion of the bills (ON-ON) |
| 3 | High security (OFF) or more permissive acceptation (ON) |
| 4 | $10 bills accepted (OFF) or rejected (ON) |
| 5 | $20 bills accepted (OFF) or rejected (ON) |
| 6 | The enable signal is managed by the SC-MAX (OFF). |
| 7 | Pulse per dollar (OFF) |
| 8 | Vending Interface (ON) |

The default setting should be 1, 2, 3, and 8 ON; the others OFF. This will result in a four-way acceptance, a permissive acceptation, $10 & $20 bills accepted, enable signal managed by the circuit, one pulse per dollar and vending interface. Other programming required in the SC-MAX as well.




**Default Settings / Réglages par défaut**
**MEI VN Series**

If you are using a Coinco bill acceptor, consult the Quick Reference Guide included with this bill acceptor.

## BEFORE APPLYING POWER TO YOUR MACHINE, READ THIS

The original power supply of the machine now only serves to power up the coin hoppers. It does not power up the new SC-MAX Conversion Kit. For your machine to work properly, the main switch must be ON and the new power supply plugged. This means that when you wish to shut down power in the machine, you will need to do it from both sources or simply unplug the entire machine from the wall. Apply power and test with every bills and coins to make sure you dispense the proper change.

## HOPPER DUMP FUNCTION

An empty hopper still have few coins left in the dispense mechanism. You can dump it. A hopper must be empty to dump. Press on the DUMP button for about 3 seconds. The hopper motor starts turning clearing the coins left.

## ERROR MESSAGES

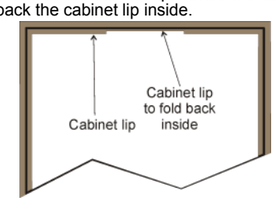
The SC-MAX enables the diagnosis of problem through the blue LCD display. The "Empty" light indicator will serve as an alarm telling you to open the machine. If it flashes, one or more coin hoppers are empty. If it's ON solid, there is an error in the system. The error will then be visible on the display. Any error messages can be cleared using the CLEAR button on the SC-MAX. Below are the most frequent error messages.

| Message | Means | What to do |
|---|---|---|
| Bill box out of position | Bill box on the acceptor is misplaced | Place it back correctly. |
| Bill jammed, call service operator * | Bill jammed in the bill acceptor. | Remove it. |
| Check Hopper / Value Settings | No value assigned to hoppers | Program the coin value for the hopper. |
| Coin jam, push coin return * | Coin jammed in the coin acceptor. | Remove coins. |
| Fast vend shut off reached! | The quantity of bill inserted surpasses the limit set. (see System Settings). | Adjust if needed |
| Hopper(s) A B C D anti-jack-pot | Hopper A, B, C, or D saw a coin passing by without authorisation or + than 100 coins went out or hopper value programmed while hopper absent or no communication with hopper. | Check the hopper, make some tests, change it in case of doubt. Check programming. Program a value to hopper present only. Check communication |
| Hopper(s) A B C D has coin jammed | Hopper A, B, C, or D is jammed. | Shut power OFF and clear the jam. |
| Hopper(s) A B C D has opto blocked | Hopper A, B, C, or D has it coin detector obstructed. | Open the hopper panel to clear the obstruction. |
| Hopper(s) A B C D Sold Out | Hopper A, B, C, or D is empty or original main switch OFF. | Fill it up or switch original power ON. |
| Validator error, stacker full | Bill stacker is full. | Empty it! |

** Messages visible by the customer on the optional external display.*

## ANNEX FOR SC90 & SC100 MACHINES

The SC-MAX Conversion Kit goes in SC90 and SC100 machines with a small modification. You must cut the top of the cabinet as the bill acceptor bracket is located too high on the door. It is then impossible to close the door by just few millimetres. Mark the spots where you need to make a cut. Using a metal saw or even better, with a rotating tool such as a *Dremel*, make two or three cuts in the cabinet lip. Once the cuts done, with a good pair of pliers, pry back the cabinet lip inside.

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# SC-MAX
# Flow Chart
# Audit & Programming

# I01260

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**MENU** Black button NEXT — **ENTER** Green button CONFIRM — **CLEAR** Red button + — **DUMP** Blue button - See note bottom of page

**SC-MAX V3.3 Ready**

Pressing the blue button at anytime sends the report to the printer. You can erase the audit after the print-out.

**Audit**

**Hopper A out:** 0 → **Hopper A out: Cumulat.:** 0 → **Hopper B out:** 0 → **Hopper B out: Cumulat.:** 0 → *If you have more hoppers, the same information will be available.* → **Coin box:** $000.00 → **Bill box:** $000

**Cash in:** $0.00 → **Cash in: cumul.** $0.00 → **Cash sales:** $000000000.00 → **Total sales:** $000000000.00 → **Reset meters? Hold RED button**

**Reset meters?** → **CLEARED !** → **SC-MAX V3.3 Ready**

Press and hold 3 seconds

**Last bills accepted**

Pressing the blue button at anytime will send the log to the printer.

*This will show you the last twenty bills that were accepted starting with the most recent.*

To scroll...

To exit !

**Currency setting**

**Currency setting** $0.05 no → **Currency setting** $0.10 no → **Currency setting** $0.25 no → **Currency setting** $1.00 yes → **Currency setting** $2.00 yes → **Currency setting** $5.00 yes → **Currency setting** $10.00 yes → **Currency setting** $20.00 yes

Press + to toggle from YES to NO and confirm with Green. Currency will vary depending type of peripherals connected to the SC-MAX.

**Hopper value**

Choices are: Without, .05, .10, .25, 1.00, 2.00, token, SCM relay interface, and SEM relay interface.

**Hopper value A:** 1.00 → + / − → **Saving one moment please**

**Hopper value B:** 2.00 → + / − → **Saving one moment please**

**Hopper value C:** Without → **Hopper value D:** Without

The majority of machines only have two hoppers. If your machine has more, program their value the same way you did for hoppers A & B.

**Accumulate Value (Vend price set)**

**Accumulate value** $0.00

Press + or − enter the value. Confirm with Green.

**Accumulate value Hopper A:** 0 → **Accumulate value Hopper B:** 0

Press + or − enter the value. Confirm with Green.

**For 1$ Hopper A:** 0 → **For 1$ Hopper B:** 0

**For 2$ Hopper A:** 0 → **For 2$ Hopper B:** 0

**For 5$ Hopper A:** 0 → **For 5$ Hopper B:** 0

**For 10$ Hopper A:** 0 → **For 10$ Hopper B:** 0

**For 20$ Hopper A:** 0 → **For 20$ Hopper B:** 0

If you have hoppers C and D, program them according to your needs.

**Hoppers dispense**

**System settings**

**Language** → **Language English** → Press + or − to change it. → **Fast vend Shut off**

**Max qty of bills** 0 bills → **Time period** 0 minutes → **Error time out** 0 minutes

**Clock setting** → **year/mo/dy-hr:mn** 2015/12/25-23:59

Press + or − enter the value. Move digit and confirm with Green.

**Para. Coin Panel** → **Para. Coin panel** yes

**Machine ID** 0000 → **Kill relay**

**Kill relay** ON → **Transfer**

See note bottom of page

**Transfer** Equal or less → **Hold Escrow** → **Print param.** → **Printing in Process...**

Choices are *none, equal or less* and *equal*.

Choices are yes or no. Press + or − to change. Confirm with Green.

See note bottom pf page

**Events report**

*This will show all the errors that have occured and when it did, starting with the most recent.*

To scroll... To print

To exit !

**SC-MAX V3.3 Ready**

**Dump:** The blue button allows to dump an empty hopper. Press and hold button for 3 seconds.
**Parallel acceptor:** Mars Cashflow 330 acceptor with flat grey cable (black acceptor).
**Kill Relay:** Enables to keep 120 volts present all the time on the hopper power plugs (OFF) or only when a payout takes place (ON). If the machine goes out of order, no voltage will be present in the plugs. This allows the installation of some remote warning device for the operator.
**Transfer:** It transfers payment to another hopper if the value is equal or less than the empty hopper. (i.e. $1 hopper empty, transfers to the 25¢ hopper). The transfer cannot go to a higher value hopper (i.e. 25¢ hopper empty, **no transfer** to the $1 hopper).
**Hold escrow:** When using the accumulate value function, you can keep extra credits for the following transaction.