

TOKEN PAYMAX

SEM

INC.



Installation & Instruction Manual

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Image on front page shows a Token Paymax with its pedestal, fully equipped with a credit card reader, a bill acceptor, a coin changer, 6-selection, 1 OK, 1 language, and 1 cancel buttons, the LED cap kit, and finally one receipt printer. The machine is in a stand-by state, ready to make a transaction.

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Introduction

The PAYMAX line of machines comes in multiple versions allowing to sell different products or services. No matter the version, all PAYMAX machines share common peripherals or elements such as a coin acceptor without change remittance, a coin changer, a bill acceptor, and a cashless device (credit/debit card, prepaid card, etc.) and the main controller.

The PAYMAX lines of machines comes in the following versions:

- CARD-PAYMAX Card dispensing machine
- CHANGE-PAYMAX Change machine
- CARWASH-PAYMAX Automated carwash payment station
- COUPON-PAYMAX Coupon dispensing machine
- GATE-PAYMAX Gate activation machine
- PaD-PAYMAX Pay & Display parking machine
- PARKING-BC-PAYMAX Bar code coupon dispensing machine
- TICKET-PAYMAX Ticket dispensing machine
- TIMER-PAYMAX Multiple timers machine
- TOKEN-PAYMAX Token dispensing machine

All versions of PAYMAX machines are using the same cabinet. The cabinet was designed to be installed either directly on a wall or on the optional pedestal, or both if the wall does not have the sufficient strength to withstand the weight of the machine and offer sufficient resistance against tearing. The pedestal comes with the required openings allowing you to anchor it in the floor adequately. The bottom of the pedestal is larger than the top offering a greater stability.

This manual is for a TOKEN PAYMAX machine.

The various payment peripherals will vary depending the country of operation of this PAYMAX machine but their basic functioning stays the same.

Outdoor/Indoor Operating Range

The PAYMAX machine works outdoor if there is sufficient protection against bad weather. Do not operate without an adequate protection against rain and snow. If the machine goes outdoor, check with your electrician contractor as the circuit powering up the machine will have to be on a GFI (Ground Fault Interrupter) protected circuit.

The minimum/maximum operating temperatures varies depending the peripherals and dispensers in the machine. It was determined that this machine will operate between +5°C (41°F) and +40°C (104°F). If you are planning to operate your machine in an environment below +5°C (41°F), you need to get the optional heating device with built-in thermostat available from SEM.

Operating voltage

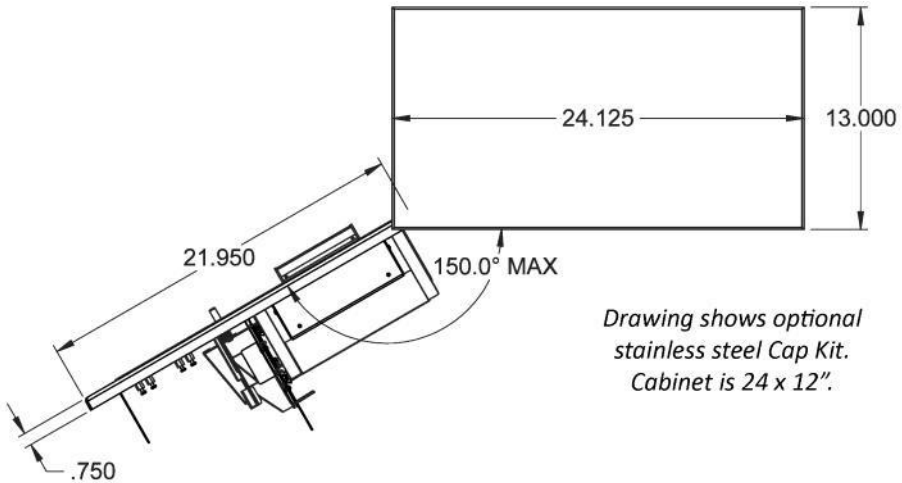
The PAYMAX line of machines comes with a switching power supply delivering 24-volt DC to the different peripherals and dispensers (optional heating device excluded). The power supply specifications are:

Input:	100-240 Volts; 50/60 Hz 1.5A
Output:	24 volts DC; 2,5 A

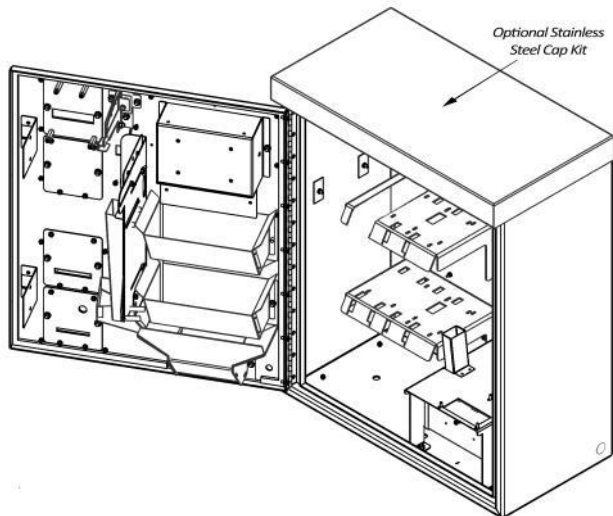
This type of power supply enables you to operate this machine anywhere in the world.

Installation

The first thing to evaluate is the adequate location. The door of the PAY-MAX machine opens right to left. You must then allow sufficient room for the door to swing out entirely. The door is 22 inches wide and swings out 150 degrees to the left as seen below thus adding 18 inches to the overall width of the machine.

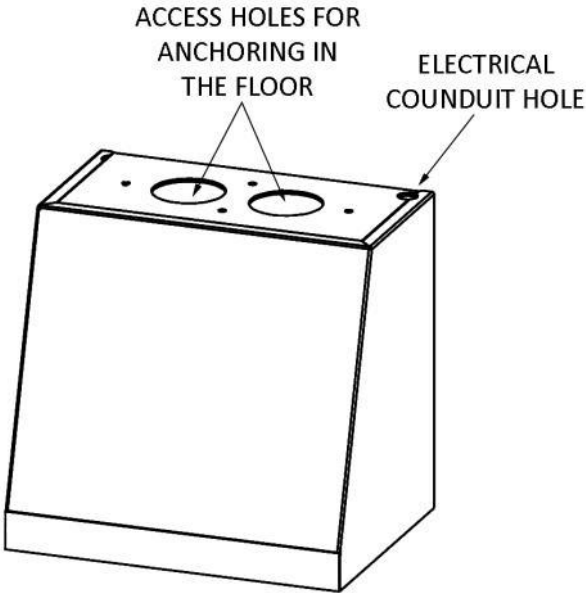


The interior of your machine may vary.

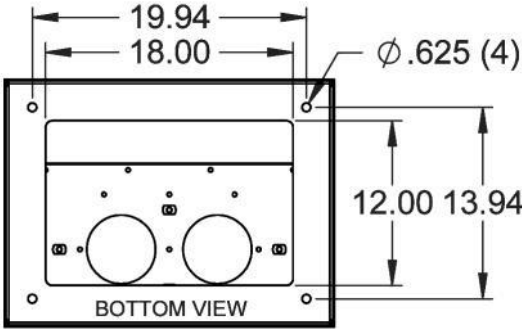
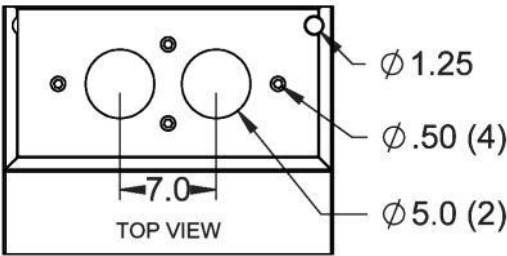


Once done, you can then prepare your installation by figuring where your electrical metal conduit will come out of the floor or the wall, and prepare the anchoring points.

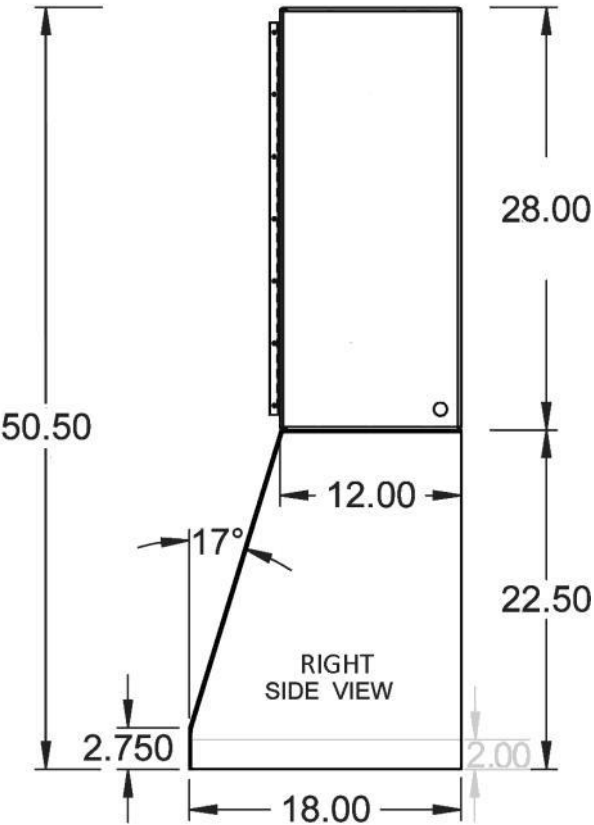
The pedestal comes with the necessary openings allowing installation. Below are three sketches showing you the dimensions of the pedestal along with the different positions and sizes of the various openings.



ISOMETRIC EXPLODED VIEW



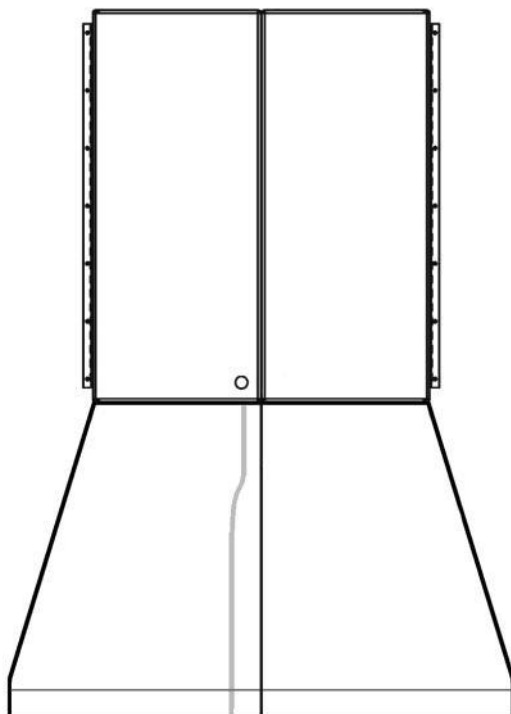
The dimensions of the pedestal at the base are 24" wide by 18" deep. The top of the pedestal sees its depth reduced to 12" to match the cabinet. That gives a 17 degrees angle forward towards the base. The height of the pedestal is 22.5". Combined with the height of the cabinet, it gives an overall height of 50.5 ".



There is an empty space between the base of the pedestal and the floor. This space is 2" high as seen in grey above. Therefore, the anchoring devices you will use need to extend at least 2.75" above the surface of the floor. In a concrete floor, an anchor sleeve 1/2 X 6 HEX will offer sufficient protection against pullout and shear. In a 2000-PSI concrete floor, the ultimate pullout tension is 1676 lbs and the ultimate shear is 3645 lbs providing the sleeve is embedded to a minimum of 2 inches in the concrete floor.



The PAYMAX cabinet can also be mounted back to back if you have two machines free standing as seen below that cannot be fixed to a wall for whatever reason.



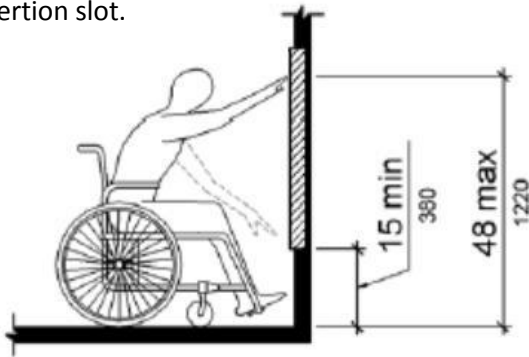
The holes behind the cabinet are symmetrical. **This type of installation does NOT prevent you from anchoring the pedestal to the floor** as described on the previous page.

The PAYMAX cabinet can be mounted embedded in a wall, or surface-mount on a wall, or surface-mount on a wall, mounted on the pedestal as well.

The back of the machine offers four anchoring points you can use to fix the machine to the wall. The weight of this machine, especially when fully loaded, can reach more than 103 kg (225 lbs). Therefore, you must make sure the wall intended to receive this machine can withstand such a weight, and more importantly, offers great resistance against tearing off. If you are not sure about the type of anchoring devices and fixations you need to secure your installation, please refer to a building contractor.

The machine can also be embedded in a wall if the backspace is sufficient. You will then need to make your own angle metal brackets and make additional holes on all four sides of the cabinet. You may need also to support the weight of the machine in the back with some sort of support as seen in the images next page.

Before starting the installation of your machine, you have also to take into consideration that the machine will be used by personal in wheelchair. You then have to install it so that anyone can insert either a bill or a coin with ease. The ADA standards stipulate a maximum height of accessibility of 48 inches. In the case of the PAYMAX cabinet, the maximum accessibility is the vertical coin insertion slot.

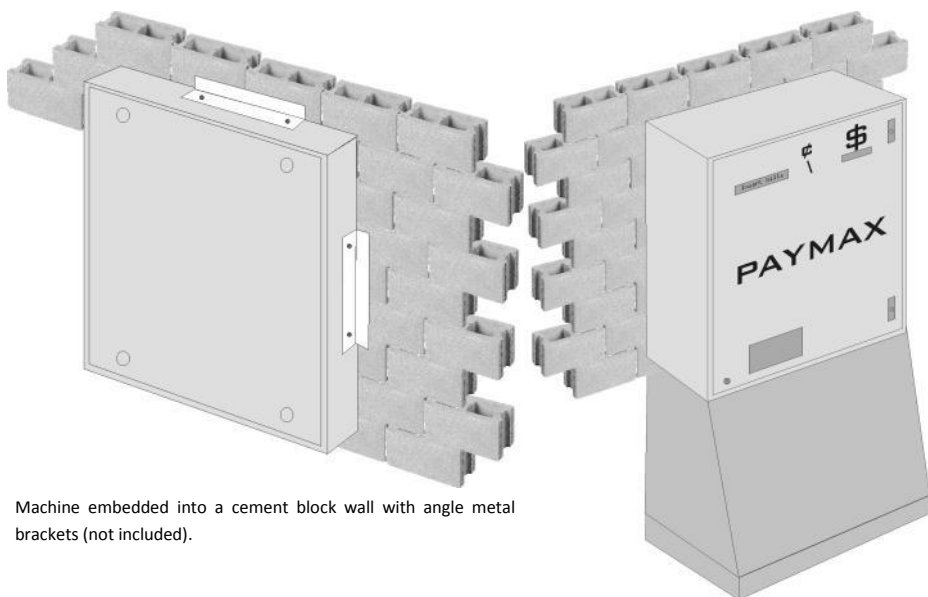


If you install your machine directly on the wall, make sure it is perfectly flat otherwise, you may warp the cabinet resulting in difficulties to close the door. The outline of the cabinet on the wall must not offer any grip that could eventually be used as a point of support to tear it off the wall.

You will appreciate the hanging hook-style double holes in the back of the cabinet. Just mark your spots on the wall using the holes as a guide, remove the machine, make your holes using the proper tool, install the proper anchoring devices, hang the machine in place and tighten the anchoring devices.

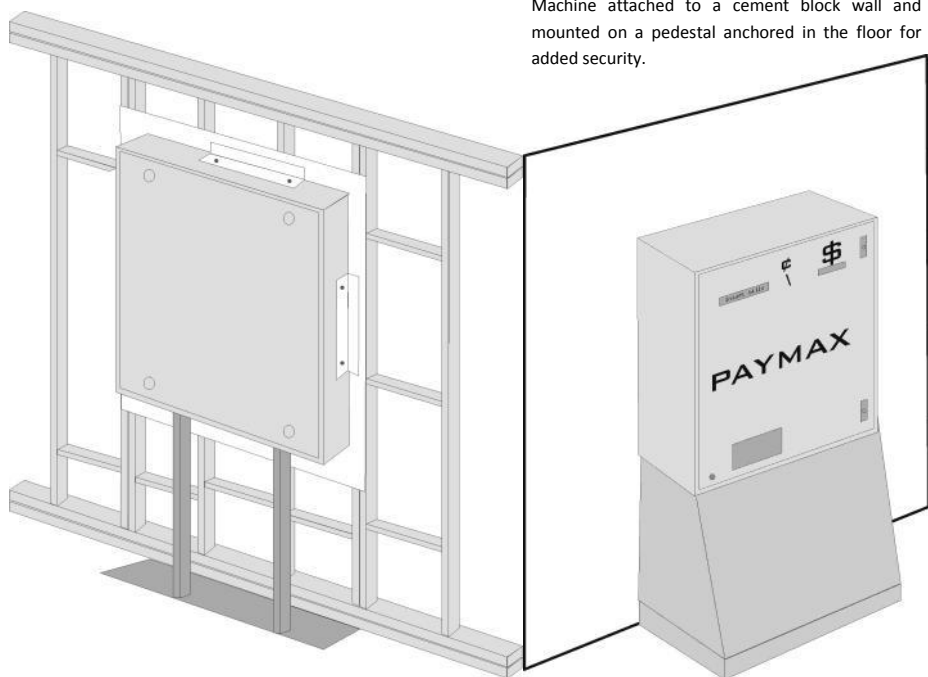
A PAYMAX machine can hold a very large quantity of money and can then stir up the covetousness of many. Therefore, IT IS YOUR ABSOLUTE RESPONSABILITY to make sure your installation is solid enough and resistant to tearing off attempts. In case of doubt, refer to a building contractor.

Examples of fixation on a wall



Machine embedded into a cement block wall with angle metal brackets (not included).

Machine attached to a cement block wall and mounted on a pedestal anchored in the floor for added security.



Machine embedded into drywall with double studs and additional support (not included)

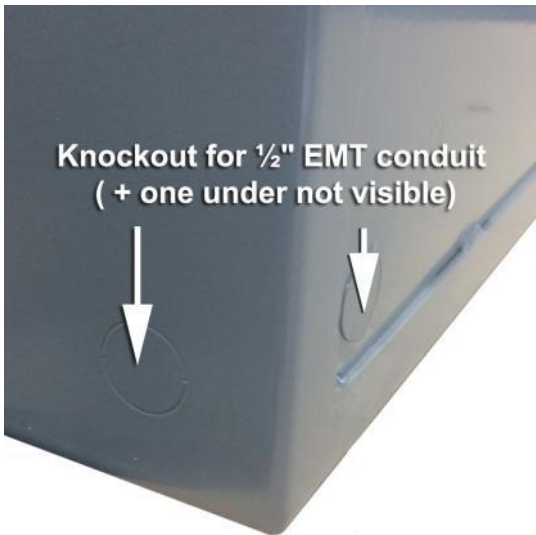
Machine mounted on a pedestal anchored in the floor and attached to studs of a drywall for added security.

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Electrical connection

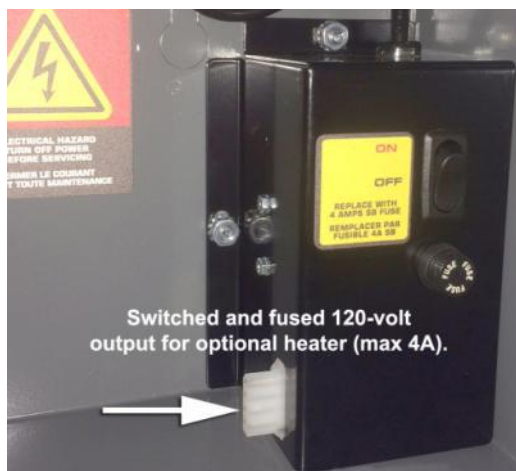
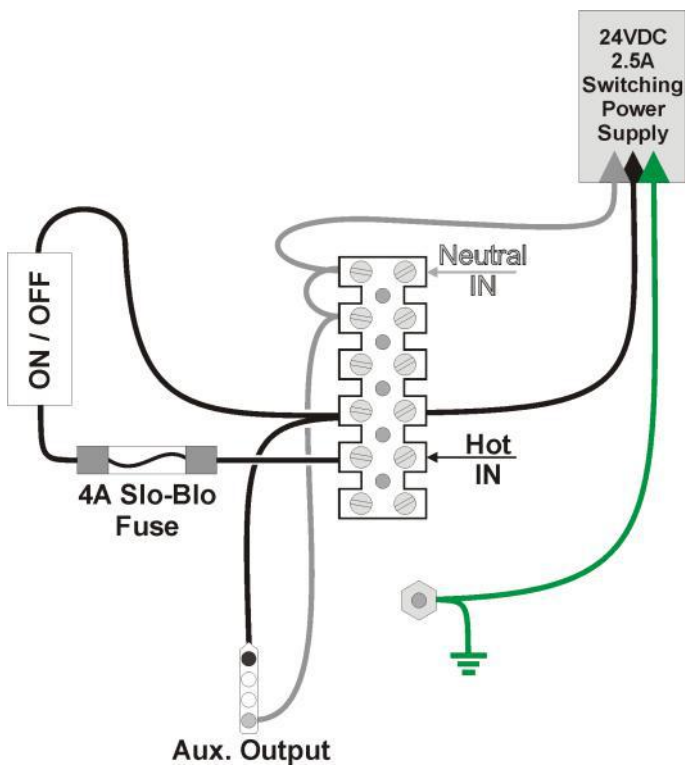
You need to refer to a certified electrician to bring power to the PAYMAX machine, as there is no power cord coming out of the machine. If needed, you can buy the optional power cord allowing you to connect your machine to a standard wall outlet.

You will find at the bottom right corner of the cabinet three knockout holes that will allow you passing the wires. The holes will fit 1/2" EMT connector. If your machine is sitting on a pedestal, you will find a hole, back right corner that will allow you passing either the wires or the electrical conduit (see page 8).



In North America, the machine requires a standard 120-volt, 60Hz, 15 amps power source **properly grounded**. It does not necessarily have to be on a dedicated circuit although it is better if it is. The machine draws a maximum of 1.5 amps, 4 if there is an internal optional heating device sold by SEM. **If the machine is to be operated outdoor, the circuit feeding the machine MUST be protected by a GFI (Ground Fault Interrupter).**

The wiring enters the junction box where you will make the proper connection. Refer to a certified electrician for a secured connection. If the machine came with the optional power cord, the connection is already done and you do not need to access the box. A 4 amps *slo-blo* fuse located in the junction box, under the main switch protects the machine. The main switch cuts power (hot only) to the entire machine. From there, it goes to a switching power supply with a 24 VDC, 2.5 amps output. The auxiliary output for the heater is also switched and fused.

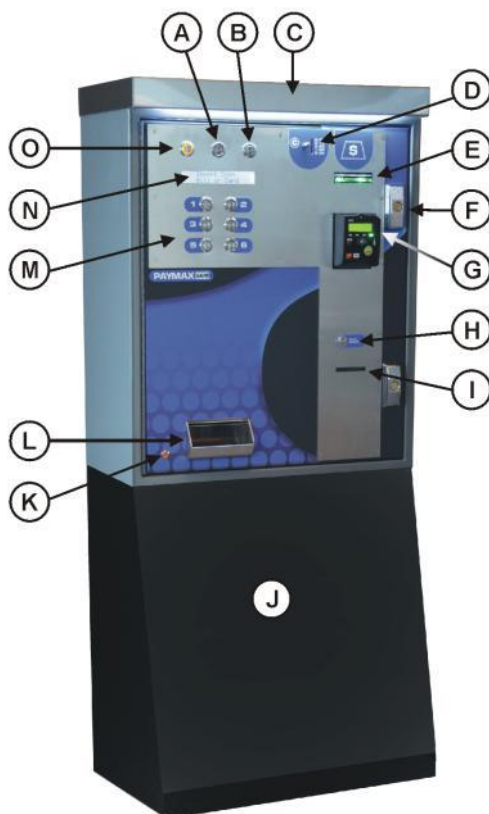


WARNING !!!

Shut power OFF before unplugging or plugging any element (dispenser, hopper, coin changer, bill acceptor, credit card reader). Failure to comply may result in damages to the controller and/or the elements.

Identifying your machine and its components

Once the PAYMAX machine properly installed and connected, it is now time to identify the machine and its components. Your machine may differ from illustration below depending the product you sell and the options you have chosen.



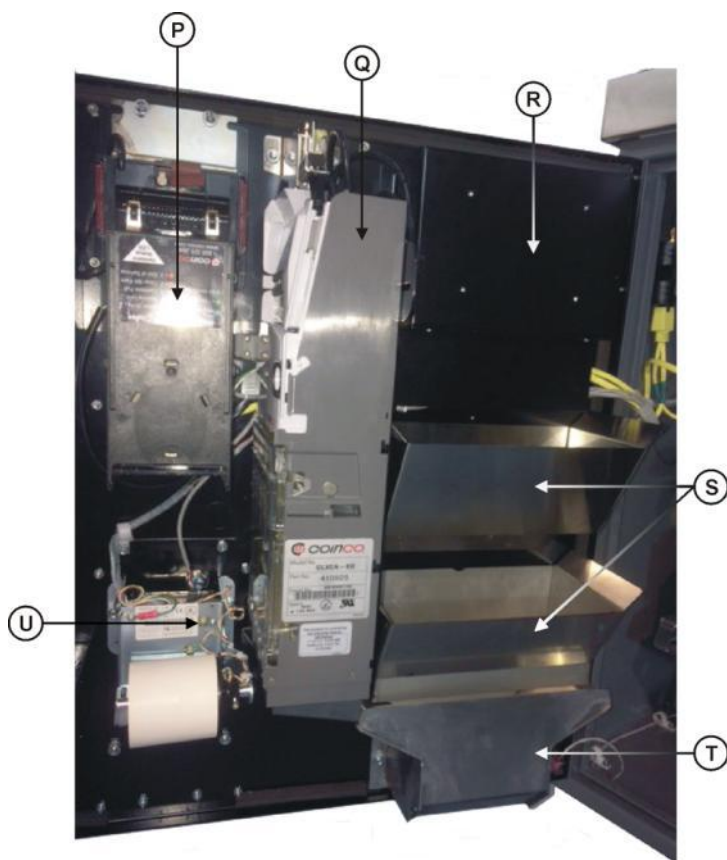
The external door

- | | |
|---|--|
| A. Optional Red Cancel button (the position may vary depending the configuration of your machine) | H. Optional receipt button |
| B. Green OK button (used in multi-vend operation if available) | I. Optional receipt delivery slot |
| C. Optional Cap-Kit with white LED's | J. Optional pedestal |
| D. Vertical coin insertion slot and escrow plunger | K. External error indicator |
| E. Horizontal banknote insertion bezel | L. Large delivery bin |
| F. T-handle (pair) | M. Blue selection buttons (from 2 up to 6 depending configuration) |
| G. Credit/Debit card reader | N. Large trilingual LCD display (English, French, Spanish) |
| | O. Orange Language selection button (optional) |

The internal door

The internal door of your machine varies depending the option you have bought and the type of machine.

The image below shows the internal door applicable to a CARD-PAYMAX or TOKEN-PAYMAX. It has delivery chutes, coin changer, bill acceptor, and receipt printer.

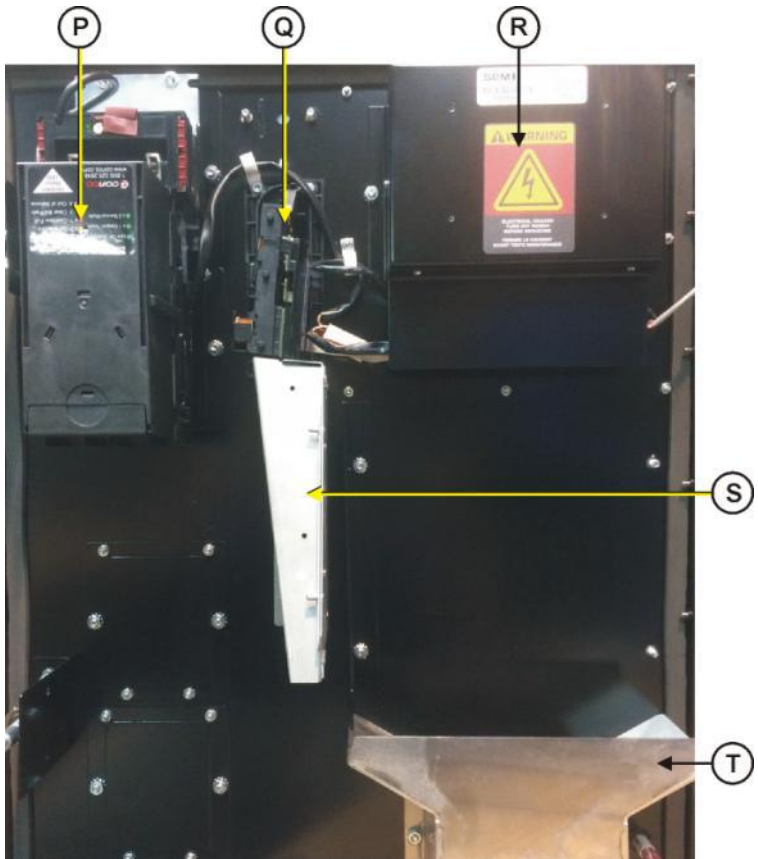


- P. Bill acceptor & cassette (yours may be different)
- Q. Coin acceptor and change giver (yours may be different)
- R. Display & selection buttons module
- S. Dual product delivery chutes
- T. Delivery bin
- U. Optional receipt & audit printer

See next page for another internal door configuration...

The internal door of your machine varies depending the option you have bought and the type of machine.

The image below shows the internal door applicable to a CHANGE-PAYMAX or TO-KEN-PAYMAX. It has a coin acceptor (no change given out) and a bill acceptor.



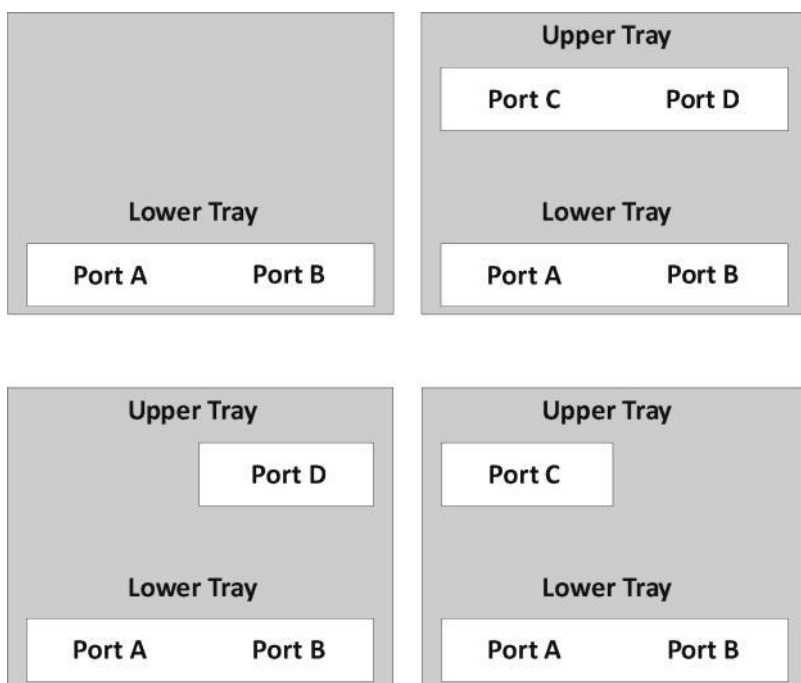
- P. Bill acceptor & cassette (yours may be different)
- Q. Coin acceptor only (yours may be different)
- R. Display & selection buttons module
- S. Coin chute to cashbox.
- T. Delivery bin

The interior of the machine—Ports location

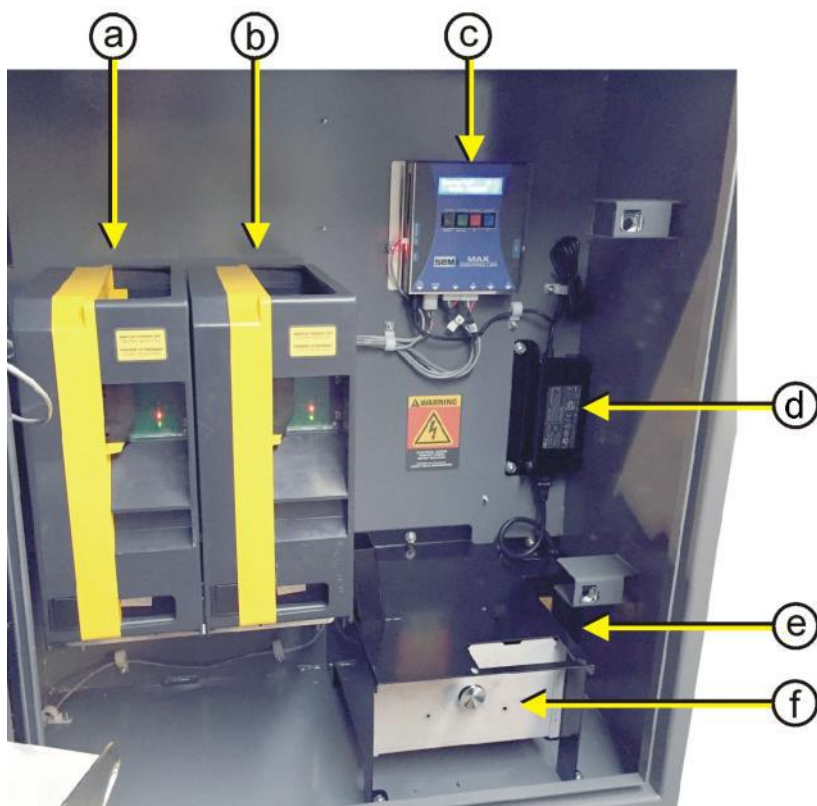
The PAYMAX line of machines has a maximum capacity of four dispensing ports. These ports consist of different elements. You can have a card dispenser of various capacity, a universal coin/token hopper, a mini coin/token hopper.

The position of the ports is always the same no matter what is connected to the port. Below are some configurations possible.

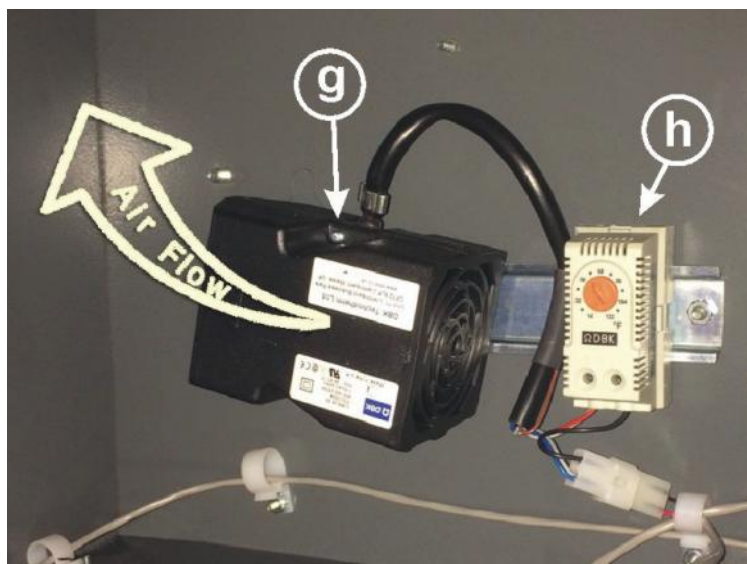
Some card dispensers or coin hoppers may be very high depending their capacity. In such a case, it may extend sufficiently high to prevent the presence of the upper tray thus reducing the quantity of ports possible as seen below.



The interior of the machine—Component identification



- a. Standard-capacity token hopper on port A (some hoppers may have an extension thus adding token capacity).
- b. Standard-capacity token hopper on port B.
- c. MAX Controller with self-diagnosis LCD display.
- d. 24-VDC 2,5 amps. switching power supply.
- e. Main switch and fuse housing.
- f. Large capacity coin box.
- g. 200-watts heater and blower.
- h. Adjustable Thermostat (default value 15°C).



More details on each component

In the next pages we will talk about the different payment and distribution peripherals you can find in the different PAYMAX versions.

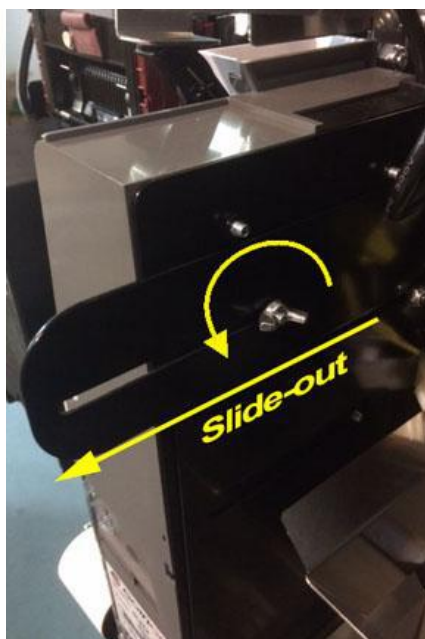
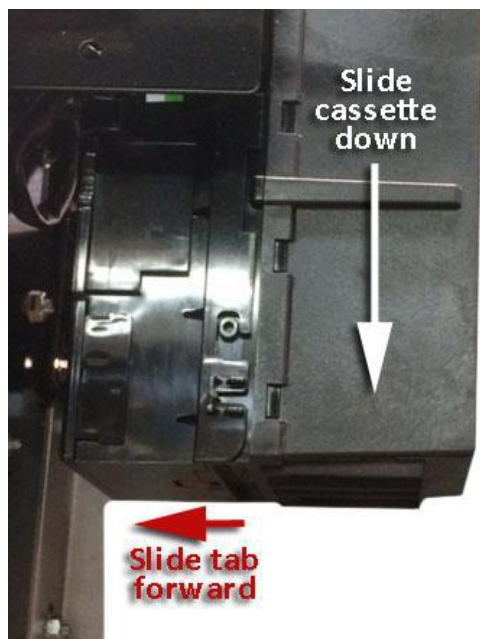
The coin changer:

The coin changer has 5 tubes of change. Each of the tube will hold a certain quantity of coins. Coins lay flat in the tube, ready to be dispensed out when it reaches the bottom of the tube. All tubes self-replenish when a customer inserts a coin matching the tube. The top priority is always to keep the tubes full. When a tube is full, the coin is then directed to the coin box sitting on the floor of the cabinet. The coin changer always gives out change in the less coins possible (i.e., it will not give 4 x 25¢, it will give 1 x 1\$). The value of all the coins in the tubes is sent on a regular basis to the MAX controller thus adjusting the values in the Audit section of the controller. **You need to fill up the tubes when installing your machine** to make sure it will behave adequately.

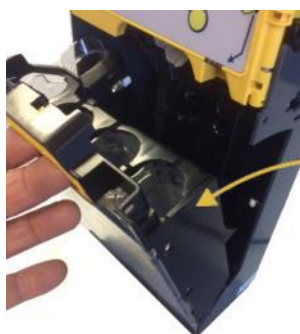
To fill up the tubes, unscrew the small wing nut (do not remove it) holding the coin changer bracket in place and slide it out. Remove the bill cassette as it blocks the way for removing the coin cassette (see images next page). Remove the coin cassette. Fill up all the tubes with the proper coin in the proper tube. If you have two coin tubes sharing the same value of coin, those are seen as a single tube in the audit of the machine (i.e. Three 25¢-tubes having each \$18 in quarters will be seen as ONE tube having \$54 in the audit of the MAX controller. **Push back the coin changer in place and tighten the wing nut once done.** Changer will auto-evaluate how many coins there is in each tube with a 1-coin per tube margin of error, and sends the result to the Audit.

In self-replenish, the capacity per tube of a 5-tube coin changer is:

5¢ = 82 (\$4.10)	10¢ = 123 (\$12.30)	25¢ = 90 (\$22.50)
\$1 = 72 (\$72.00)	\$2 = 79 (\$158.00)	



Lift handle



Tilt forward and remove
(Caution! Heavy!)



Fill coins in the proper tube

The coin acceptor alone

The PAYMAX series can be equipped with a coin acceptor only, thus not offering change pay back. The coins it will accept are programmed in the Currency Settings that we will talk about further in the manual.



The bill acceptor:

As the PAYMAX Series is using the international MDB protocol, we can then install a bill acceptor capable of accepting the banknotes of the country (the same principle applies to the coin changer as well). In Canada, the bill acceptor will accept current polymer notes (\$5, \$10, and \$20). In the USA, it will accept \$1, \$5, \$10, and \$20. Whenever a new banknote is issued by the monetary authorities, a flash update is then required into the bill acceptor in order to accept those new notes. All the notes are stacked into a removable cassette. The capacity of the cassette is roughly 400 bills. Some bill acceptors can have bigger capacity bill cassette. A customer can insert a bill 4-way.



The credit card reader:

The PAYMAX Series can have a credit card reader as well. Depending the make of the credit card reader, it can be combined with the bill acceptor offering a common bezel as seen below where the bills are inserted in the bottom green section. In all cases, the card reader comes with an additional communication module inside the machine. Depending the make of the credit card system, it can communicate wire-less or through the IP network.



Coinco card reader combined with bill acceptor



Coinco Iris communication module wireless only



NAYAX Card Reader with LCD display



NAYAX AMIT Communication Module IP/Wireless

The token dispensers:

The Token PAYMAX can have one or two universal coin/token hoppers. The universal hopper can have an extension at the top thus adding capacity. This type of universal hopper can hold different types of tokens in thickness and diameter. The capacity of a hopper equipped with the top extension is roughly 3500 tokens having a 0.984 diameter.

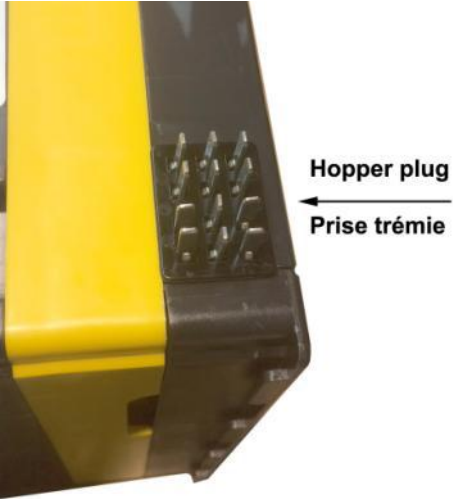
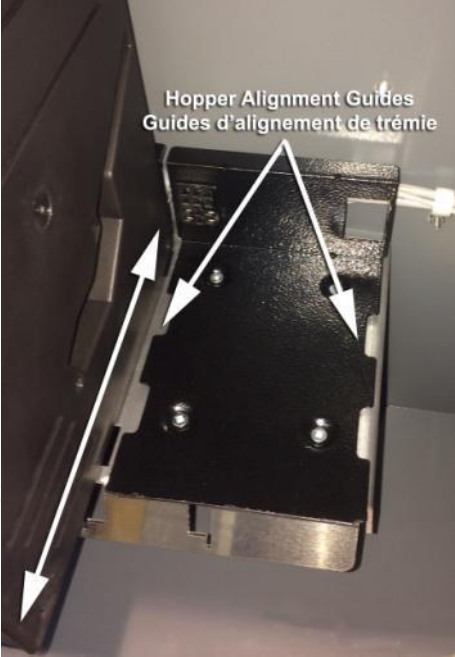
The universal hopper slides in and out of its bracket. There is no cable attached to the hopper. The hopper connects to a 12-pin socket.



WARNING !!!

Shut power OFF before removing the token hopper(s).
Failure to comply will result in damages to the controller
and/or the hopper.

Filling up the hoppers with tokens may be easier if you slide it out of its position. Caution. A full hopper is very heavy. **Again, shut power off before sliding in and out the token hopper(s).**



The MAX Controller:

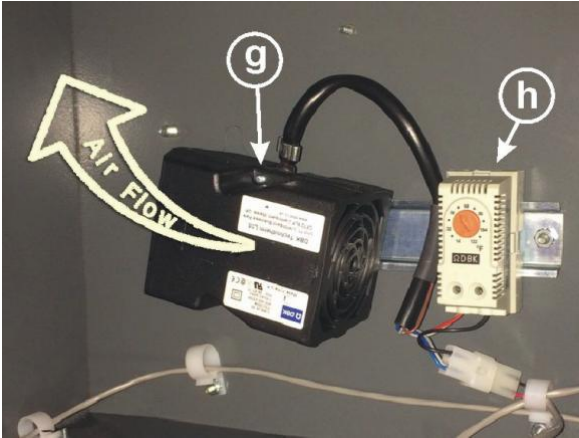
The MAX Controller is the brain of the system. It receives the information from the payment peripherals and manages all dispensing ports. It has four programming buttons and one bright blue LCD display. If everything is normal, it will display SEM MAX + the current day, date & time. If the machine is into an error situation, the error(s) will be visible on the display (i.e. Port A empty) .

The MAX Controller is the same for all Paymax machine. However, its internal software will vary according which version of Paymax you are operating.



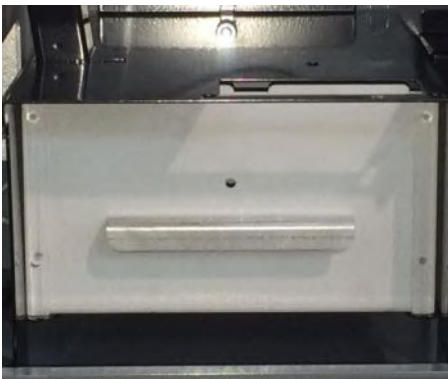
The heating device:

The PAYMAX can be equipped with an optional small heating device when used outdoor. An adjustable thermostat controls this heating device. Default value is set to 15°C. This heating device is mounted on a rail under the lower tray and connects to the auxiliary output below the main switch (see page 15). This heating device is capable of producing 200 watts and has a built-in fan blowing left side up as seen in the image below. This position allows for a constant hot air flow circulating in the cabinet.



The coin box:

The coin box is sitting in an adapted bracket at the bottom of the machine. It collects all coins not directed to the coin tubes of the changer. This receptacle can hold coins in excess of \$1000 and can therefore become quite heavy. Use both hands to handle it. The box measures 7,5" x 8,5" x 4,25" (W x L x H).

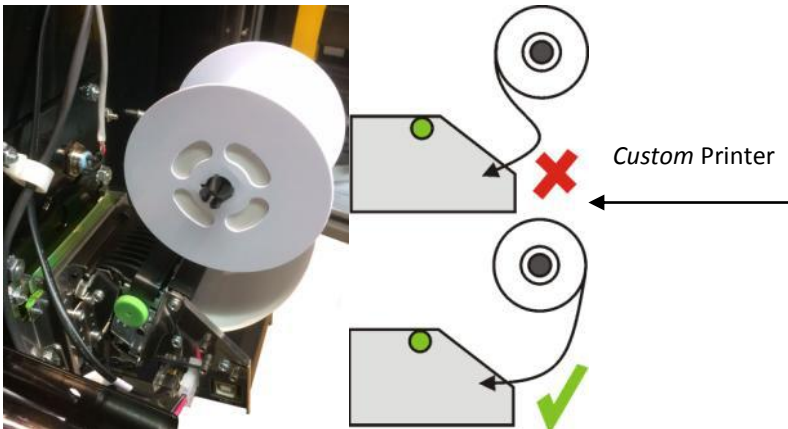


The printer:

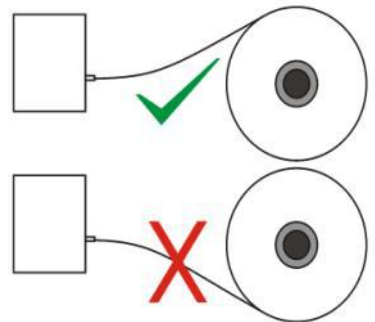
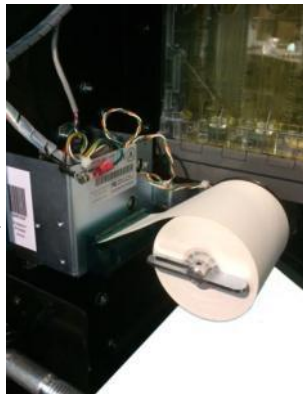
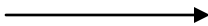
The printer is located at the base of the door. It is equipped with an auto-cutter and prints a transaction receipt, an I-O-U coupon, the audit of the machine, and all the parameters. It is a thermal paper printer using 58-60mm wide paper. It can handle a paper roll having an overall diameter of 65-90mm with a 14-20mm core.

The printer auto-detects the paper when installing a new roll. Just present the paper-end into the entry bezel as shown below and it will be pulled into the proper ready position. When out of paper, the printer sends a message to the MAX controller and an error message will be visible on the small display. An out-of-paper condition will not prevent the machine from working.

We have two models of printer: Kalypso and custom.



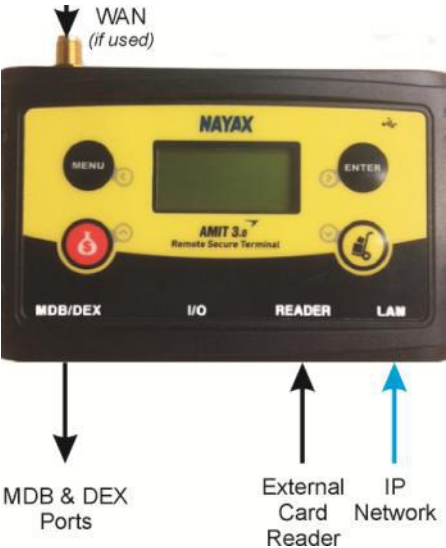
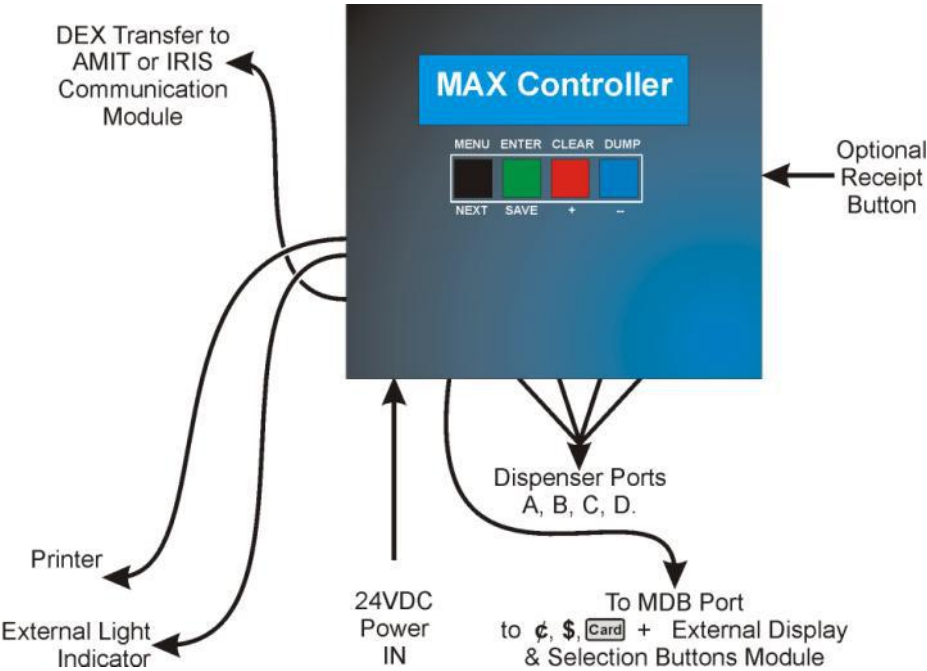
Kalypso Printer



This concludes the components identification section. In the next pages, we will talk about programming the different functions of the machine.

Wiring Diagrams

Below is the wiring diagrams of the PAYMAX machine for control and communication. The power portion wiring diagram is detailed on page 15.



Navigating through the menus of the machine

Navigating through the menus of the PAYMAX is easy using the bright LCD display on the controller itself. Each element must be installed and connected before you start. The MAX Controller has a peripheral self-detection system. Therefore, if a peripheral is absent, there will be no mention of it when programming.

The buttons are:

BLACK: The MENU button scrolls through the different menus.

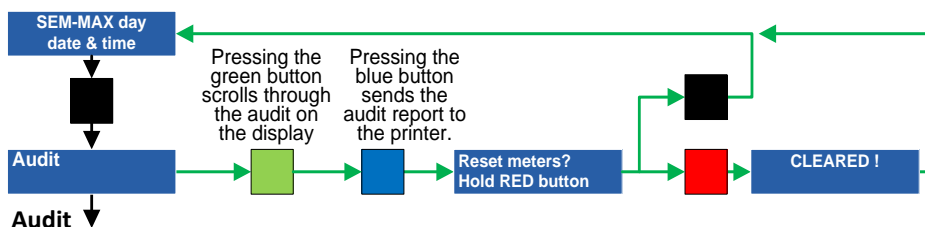
GREEN: The ENTER button enables you to enter the menu visible on the display.

RED: The CLEAR button increases a value on the display (+).

BLUE: The DUMP button decreases a value on the display (-).

Operator section

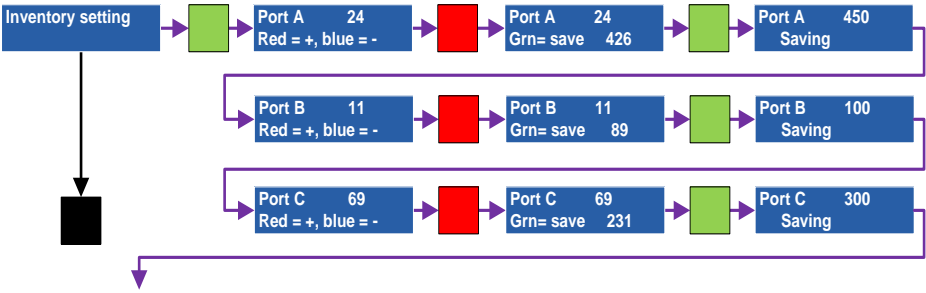
The first 3 menus are more informative than programming.



The audit of the PAYMAX is complete. If the machine is equipped with a printer, press on the blue button to print the entire audit. If the printer is out of paper, you can scroll through the audit on the display. You can erase some meters, while others will keep on accumulating information. When you see an abbreviation of the word *Cumulative* on the display, it means you cannot erase this meter. When you see **Reset Meters? Hold RED button** on the display, you can then erase all non-cumulative meters by pressing and holding the **Red button +** for 3 seconds. **Cleared** is visible briefly before exiting the audit. **(For more details, consult the Audit Annex at the end of the manual)**

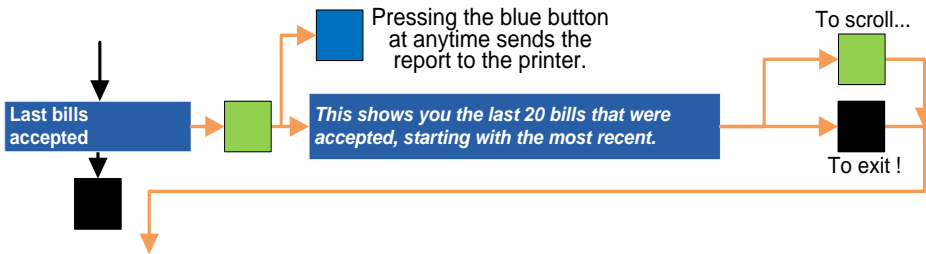
Inventory setting

This informs the controller about the current inventory in each port. If you adjust the inventory on each visit, you'll be informed of what's left upon your next visit. Press the **Green button** to enter. The display will show you the first port and its current value. Press on the **Red button +** to increase or the **Blue button -** to decrease. Press the **Green button** to confirm the new setting. Using the inventory setting allows you to dispense until the very last coin of the hopper (see page 22). **Add two extra coins in the hopper outside the inventory for safety.**



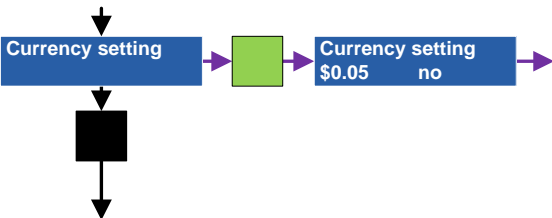
Last bill accepted

The PAYMAX keeps a log of the last 20 bills that were accepted by the machine starting with the most recent along with the date and time it was accepted. The most recent bill erases the oldest. It will NOT give you the details of a bill that was inserted by a customer but rejected for whatever reason. **Consult the Last bill Annex at the end of the manual for more details.**

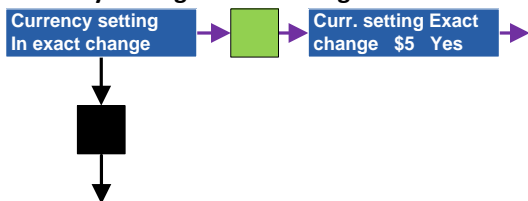


Currency setting

Upon powering up, the peripherals send their internal configuration to the Max Controller. When you go into the currency setting, you can instruct the PAYMAX what you wish to accept as payment. For example, if you have a coin acceptor accepting all coins, you may wish to accept only \$1 and \$2 while rejecting nickels, dimes, and quarters. The same applies for the bills. You may not want to accept a \$20 bill. When a currency is visible on the display, press on the **Red button +** to change it to Yes or No and confirm with the **Green button**.

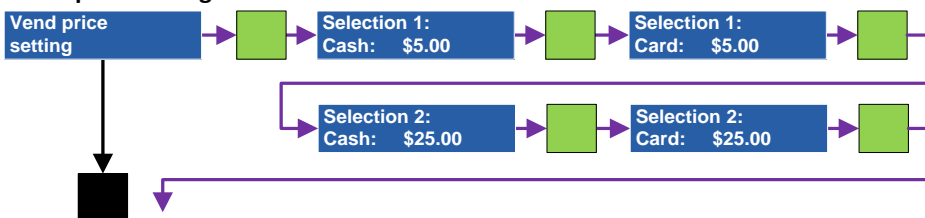


Currency setting in exact change



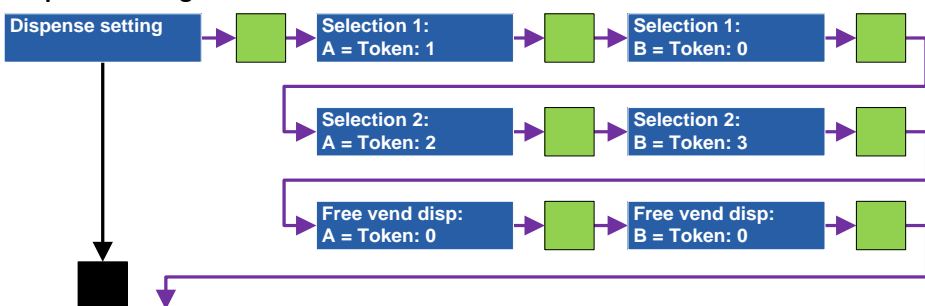
You can force the acceptance of banknotes if the machine is short in change. For example, you may want to accept \$5, \$10, and \$20 if you have a selection selling at \$20. If the highest vend price is \$10, then you can decide to accept only the \$5 and \$10, and reject the \$20 because you can't provide change. If you set all of them to NO, no bills will be accepted when short of change. Use the **red button +** to modify. Confirm with **Green** (May not be available at the time of printing).

Vend price setting



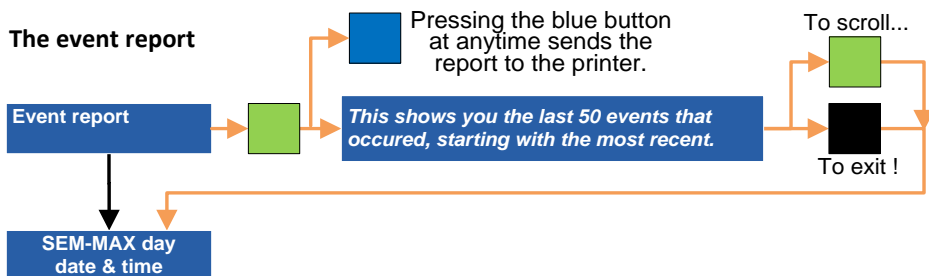
This is where you set the prices for each selection button. Furthermore, a different price can be charged if paid Cash vs. Card. It means that if you have two selection buttons, you have four prices to program. Without a card reader, you only have two prices to program and so if you only accept cards as a mean of payment. Press the **Green button** to enter and you will see Selection 1: cash \$5.00. Press on the **Red button +** to increase, **Blue button -** to decrease. Pressing and holding the button accelerates the process. This setting wraps around. If you are at \$5.00 and wish to go to \$75.00, it is faster to decrease. Confirm the new price by pressing on the **Green button**. Again, make sure you program the proper price according the mean of payment (cash vs. card). You can have up to 6 selections to program.

Dispense setting



This section is where you instruct the MAX controller what to dispense in a transaction. The quantity of settings depends on the quantity of selections, the quantity of hoppers and the free vend dispense. The free vend portion may not be visible if the payment peripherals cannot accept either a token or a coupon. It is possible to dispense from two hoppers if needed. When a selection and a dispenser are visible on the display (i.e. Selection 1, A = Token), press on the **Red button +** to increase, **Blue button -** to decrease. Confirm the setting by pressing on the **Green button**. Repeat for all selections and all dispensers. You can have up to 6 selections to program.

The event report



This report is a useful diagnosis tool informing you of any events happening in your machine that is not a transaction or related to a transaction. An event can be a bill cassette removed, an out-of-paper situation, a card jam, a token jam, a dispenser empty, etc. It will not mention that the bill acceptor rejected a note or that the gateway processor rejected a card transaction.

The report holds up to 50 events starting with the most recent. If the log is full, the earliest will push the oldest out. Along with the description are the date and the time it happened. This report can be printed at any time by pressing on the **Blue button** while you are consulting it. Here is an example of event:

2017-11-22 13:07
Printer out of paper

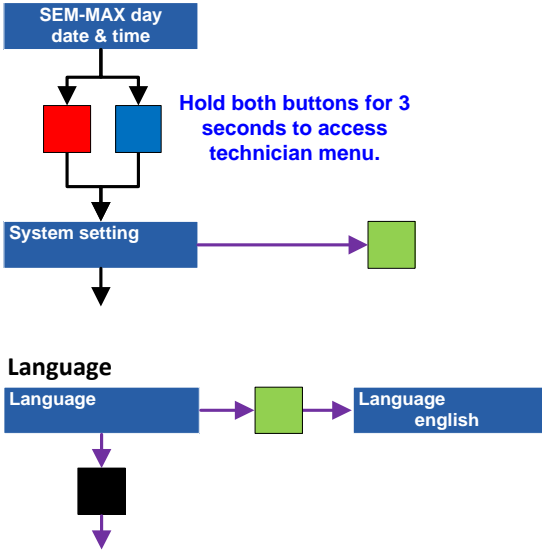
2017-11-11 09:29
Coin not remit. \$0.05

If the error description is too long, the display toggles to show the entire description. Press on the **Green button** to scroll throughout the report. When you reach the last event, the MAX controller comes back to the stand-by message.

This concludes the operator section of the programming.

Technician section—System settings

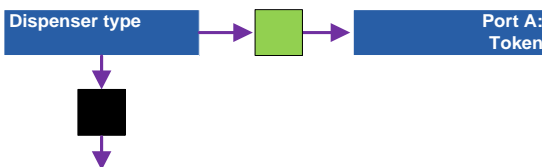
Only by a skilled person must access the technician section as it contains parameters that affect the entire behavior of the PAYMAX. You cannot access this section accidentally. If you're in it, it is because you really want it.



The PAYMAX can display in English, or French, or Spanish. To set the default language, press the **Red button** when the current language is shown to toggle between the choices and confirm with **Green**. Note that the language description is in the respective language. *Français* stands for French while *español* is for Spanish.

The optional language push button allows users to select their own language for the entire duration of a transaction before switching back to the default language. Depending on the default language set, the user may have to press twice on the language button to reach the language of his choice. If no activity is going on for thirty seconds, it comes back to the default language.

Dispenser type



The MAX controller is capable of dispensing from up to four dispensers. Your machine model may have between 1 to 4 dispensers. The DISPENSER TYPE setting allows identifying your dispenser type (coins or tokens). You can configure your MAX

controller to dispense tokens from each hopper. Press on the **Green button** to see the current setting for dispenser A, press the **Red button** to modify and the **green** again to confirm. Assigning a value to a missing dispenser will result in constant error message on the display of the controller (i.e. setting a Token value to dispenser C when there are only dispensers A and B in the machine).

The next screen will ask for the AUTO-RESET value. Enter a number here if you are planning to swap dispensers instead of adding coins or cards to this dispenser on site. EX, "100" means that you will always swap this dispenser with a filled dispenser having 500 coins or cards in it. Most operators will leave that number to 0.

If your machine does have more than one same-value and capacity hopper, the SEM Max Controller will ask for your choice of dispensing method. You can select between AUTONOMOUS, CONTINUOUS, or ALTERNATIVE.

Autonomous dispense mode

The autonomous mode makes each dispenser totally independent even if it shares the same values. **Use it if dispensers have different capacity.**

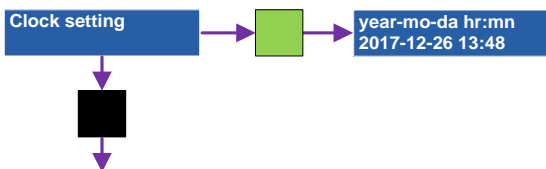
Continuous dispense mode

The continuous mode is sequential. It means it totally empties dispenser A before moving to dispenser B. If in the meantime dispenser A is filled, dispenser B will keep on dispensing until it runs empty. It then comes back to A until it runs out of cards and so on.

Alternative dispense mode

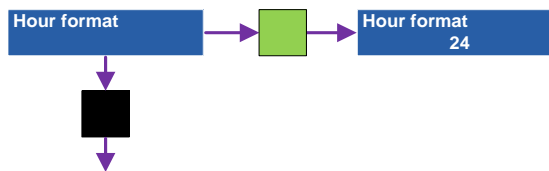
The alternative mode will dispense equally from both dispensers (i.e. A-B-A-B-A- etc.).

Clock Setting



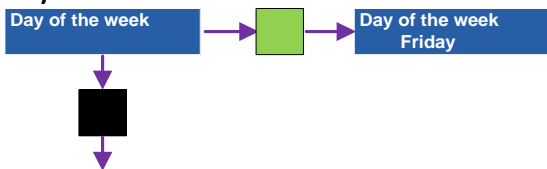
Set the current date and time here. Start with the year and go down to the last minute. Press the **Green** to move from one digit to the other, and the red or blue to modify the blinking digit. Once the last digit done, press on the **Green** to confirm your setting. Although the MAX controller uses extremely accurate components, it is a good practice to check the time occasionally to make sure it is keeping up with the correct date and time. The time on your cell phone is usually 100% accurate so you can rely on that time to adjust this setting if needed.

Hour format



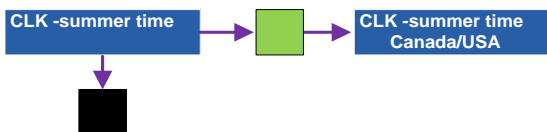
Display the time in the 24-hour (military style) or AM-PM format. Press **Green** to enter, **Red** to modify and **Green** again to confirm.

Day of the week



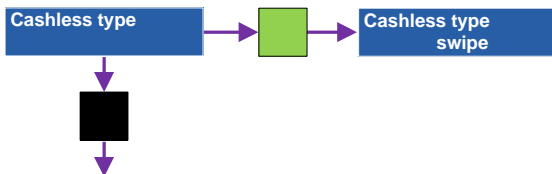
Set the current day of the week. Press **Green** to enter, **Red** or **Blue** to modify and **Green** again to confirm.

CLK - summer time



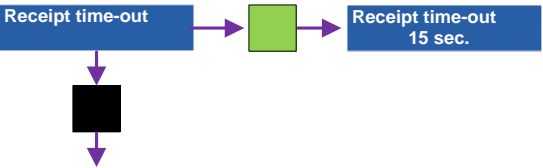
The MAX controller is capable of adapting to Daylight Saving Time (summer time) when such a time change takes place. Set it to Canada/USA to activate the time change or leave it to None to inhibit the time change. At the time of writing this manual, in North America, almost every parts of the continent move to DST on the second Sunday of March, at 2AM, except Arizona (USA) and Saskatchewan (Canada) and get back to Normal time on the first Sunday of November at 2AM. If this machine goes to Mexico, the time change to DST takes effect according a different schedule not taken into account by the MAX Controller.

Cashless type



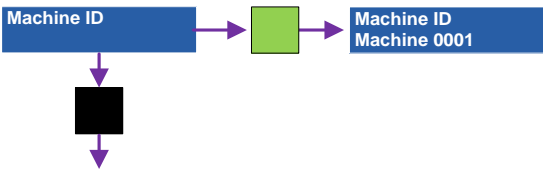
If a card reader is present, you can customize the message to the customer according to the type of reader you have. You have the choice between Swipe, Insertion, and Proximity (Contactless). Press the green button to access and the red button change the setting. Confirm with the green button. This parameter will not be visible if your machine does not have a cashless system.

Receipt time-out



After a transaction, your customer can ask for a receipt. The blue LED push button will flash for the time set (default 15 seconds). Once the blue LED stops flashing, the receipt is no more available. To modify the delay, press the **Green button**, press **Red** to increase, **Blue** to decrease. Confirm the new setting with **Green**. A "0" setting will set the printer for an automatic receipt printing after each transaction.

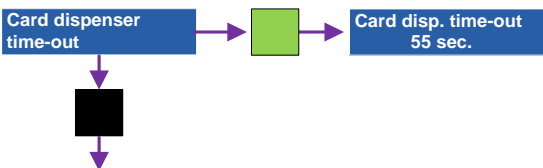
Machine ID



If you are operating more than one machine, you can assign a specific ID to your machine. This ID will be visible on the transaction receipt, the audit, and the parameters printout. The ID is alphanumeric with a maximum of 16 characters including the space between each set of characters.

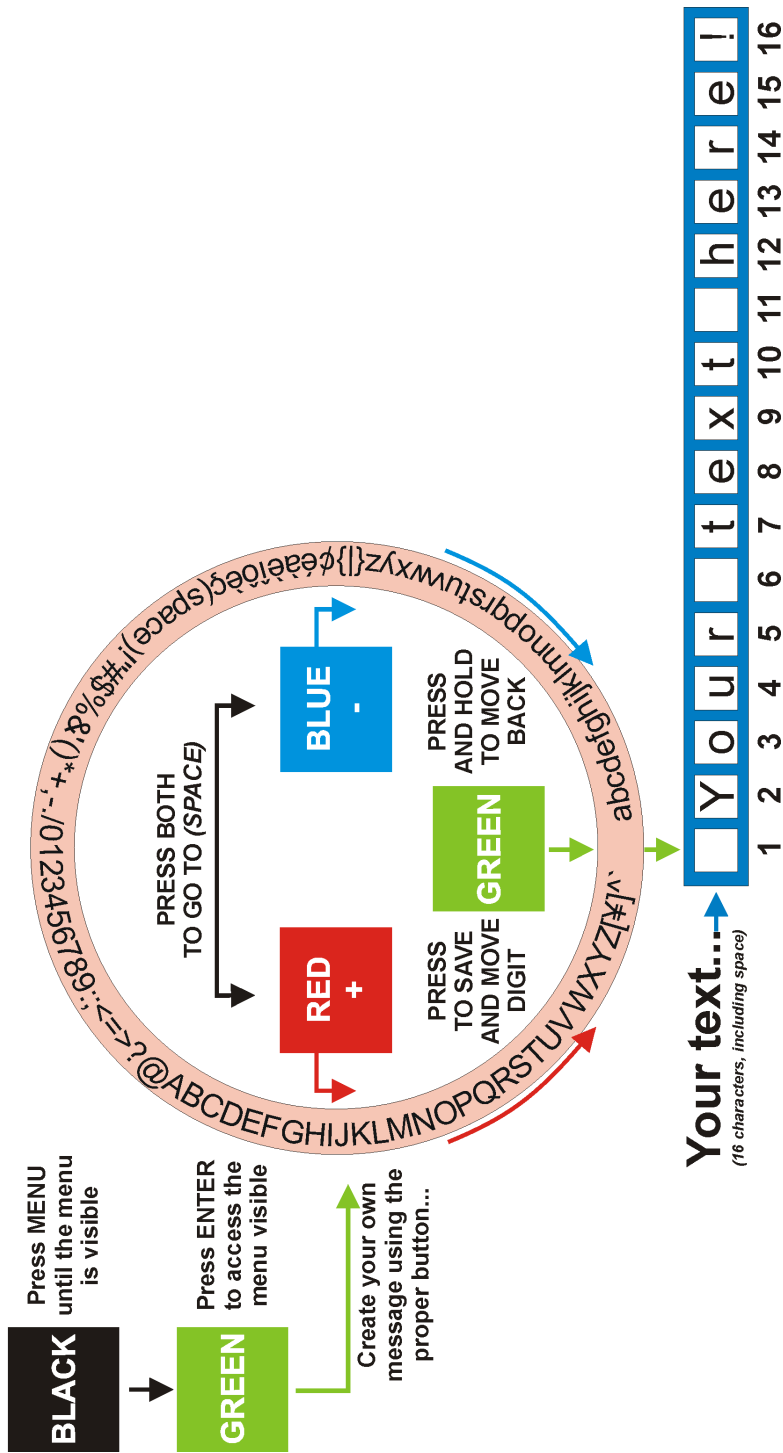
Next page is a diagram showing you how to enter the multiple characters available using the blue, green and red push buttons.

Card dispenser timer out



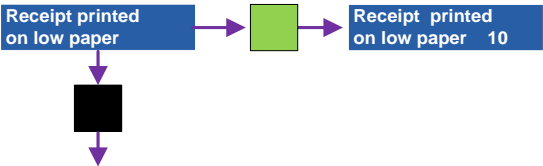
The MAX controller monitors the dispensing of a card and if for some reason, it does not have a response from the dispenser within a preset time, it will activate

SEM BUILT-IN EDITING TOOL



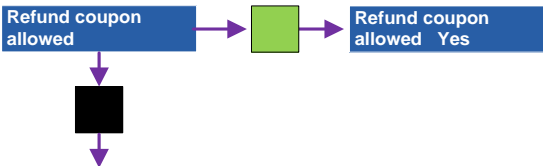
a countdown visible on the display to inform the customer some action is going on inside the machine and that the delivery of its card is on the way. If the SEM MAX controller does not receive confirmation of a card delivery, it will issue a refund (in cash or back to the card) and will consider that dispenser as not available anymore. Adjust the time using the **Red button**; confirm new setting with the **Green button**.

Receipt printed on low paper



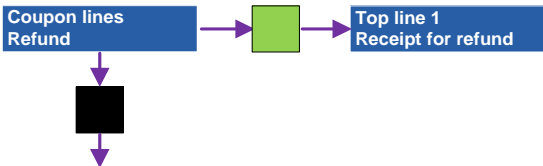
This setting allows you to print up to x receipts after the MAX controller has received the low paper signal from the printer as we all know there is still paper available in the roll. Adjust the quantity using the **Red button**; confirm new setting with the **Green button**.

Refund coupon allowed



The MAX controller can issue a refund coupon (I-O-U) if it senses the product has not been delivered or if the machine has short changed a customer. Select Yes or No using the **Red button**; confirm new setting with the **Green button**.

Coupon lines refund



In case of product jam or undelivered change, the MAX controller will print a refund coupon to your customer if the previous setting was set to Yes. You can edit the coupon as well by using the SEM Built-In Editing Tool seen on the previous page. There is a maximum of 6 lines available. Empty lines will not be printed thus saving on paper. In addition to the 6 lines, the coupon indicates the machine ID, the date and time, the error that caused the printout and the equivalent amount. An exam-

Machine 0001
2017-11-22 13:55
Receipt for refund
Reçu remboursement
Coins not remitted
\$4.00

Machine ID line

Date and time of transaction

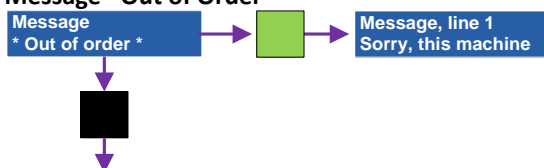
Top Line 1

Top Line 2 *(subsequent lines have smaller font)*

Description of what happened

Equivalent amount lost because of the error

Message *Out of Order*

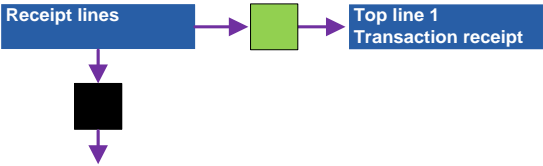


The MAX Controller allows you to creating your own *Out of order* message to the customer. This message will be visible on the front display. You have four lines available and each line has a maximum of 20 characters. If the display has only two lines, the message will toggle. This is an example of an out-of-order message:

***Sorry, this machine
is currently out of
service. Call us at
** 1-888-888-8888 *****

To edit or create your own message, use the SEM Built-In Editing Tool described on page 34. Press the green button to access the first line. Edit your text. If the text does not need editing, press on the black button to move to the second line. Please note that the display on the MAX controller is 16-character wide while the one visible by the customer is 20-character. A space is a character.

Receipt lines

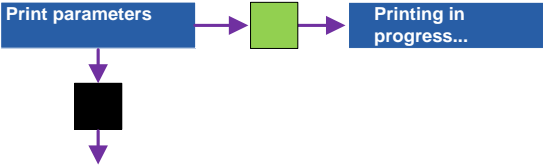


The MAX Controller can issue a transaction receipt. You can customize this receipt to fit your needs. You have 15 lines available: 6 top lines, 3 middle lines, and 6 bottom lines. In addition to those 15 customizable lines, the receipt will have the machine ID at the very top plus the date, time, and amount of the transaction. The printer ignores an empty line thus saving on paper.

Program all your lines using the SEM Built-In Editing Engine described previously. Example of receipt below.

0001	Machine ID line
Transaction Receipt	Top Line 1
Mr. Bubble Laundry	Top Line 2 <i>(subsequent lines have smaller font)</i>
2017-12-26-15:19	Date and time of transaction
\$20.00	Amount paid
Thank You / Merci	Bottom Line 1

Print parameters

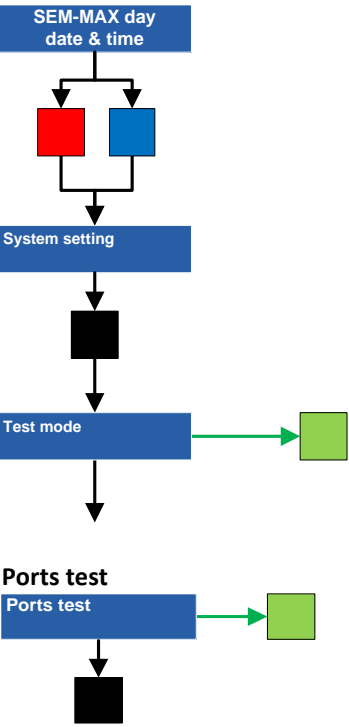


This is a very useful feature. As you have noticed, there are many parameters to program thus increasing the odds of entering a wrong setting by mistake. Once all your parameters programmed, print them for comparison with other machines you may have.

This concludes the System Settings section.

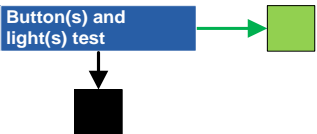
Technician section—Test mode

The test mode is a tool for the technician. When Test Mode is visible on the display, press on the **Green button**.



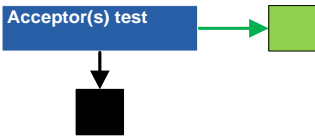
This allows you to dispense a product from each port without having to perform an actual transaction. When the good port is on the display, press on the green button. To change port, press on the red button. Press on the black button to get out of the port test mode. Any product delivered in the port test mode will NOT increase the audit of the machine.

Button(s) & light(s) test



This is to test the different push buttons of your machine. The button you press will prompt a message on the blue display and the corresponding light will activate on the button itself (i.e.: Key - Receipt). Press on the **black button** to exit.

Acceptor test



This is to test the good acceptance of the bill and/or coin acceptor. In this test mode, the audit ignores any money inserted and no sales will take place. Therefore, if you go on site following a complaint from a customer saying the machine has difficulties accepting money, use this test menu instead of making real sales.

All acceptance tests done outside this test mode will affect the audit thus creating a discrepancy in your accounting. Press on the black button to exit. This test mode disables the credit/debit card reader and therefore you cannot test it, as it would result in a real transaction visible on your monthly credit card statement.

This concludes the Technician menu.

Dump Hopper (port) function

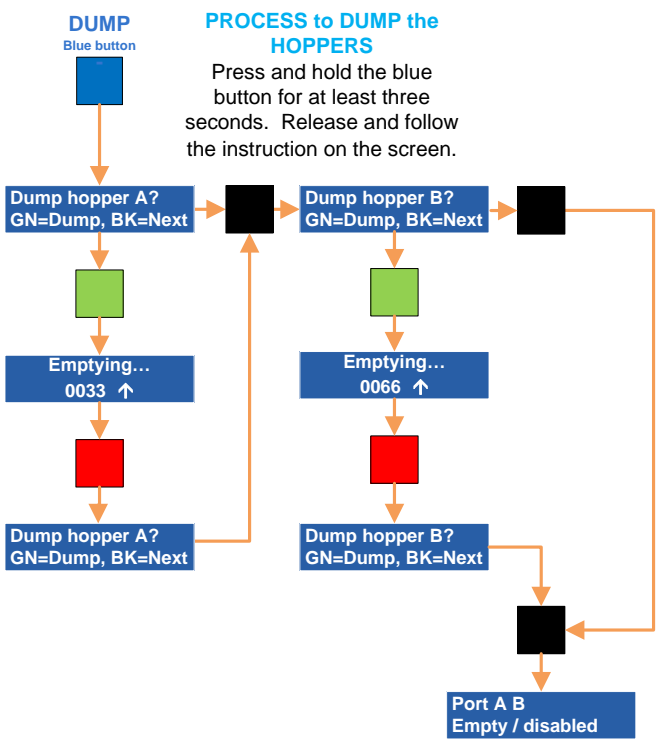
The MAX controller allows you to dump the contents of each port to zero for physical inventory purposes. A port is a coin hopper.

To access the DUMP function press and hold the **Blue button** for about 3 seconds and release. The first port available will be A. Follow instruction on the display as seen below.

It stops dispensing when the port is empty or if you press the red button. If a port is empty, it automatically transfers to the following port available.

Careful when using the dump function. Hopper will dispense non-stop so make sure you can catch what is being dispensed.

If you are using the Inventory setting, it will take into consideration what is being dump and adjust the inventory accordingly.



Audit Annex

As seen on page 32, the MAX controller offers a full audit. Below is a full description of each line. Remember that two or more coin tubes sharing the same value are seen as a single tube with the total of all tubes.

SEM MAX Control.			V2,0b2377	Type of controller and its firmware version
Machine 0001				ID of the machine
Audit	2018-11-22	12:30:00		Type of report + the date and time of the printout
Tube of	€5		\$3.25	Value of all the nickels in the €5 tube(s)
Tube of	€10		\$10.50	Value of all the dimes in the €10 tube(s)
Tube of	€25		\$18.00	Value of all the quarters in the €25 tube(s)
Tube of	\$1		79.00	Value of all the loonies in the \$1 tube(s)
Tube of	\$2		\$148.00	Value of all the twonies in the \$2 tube(s)
Inventory port A			30	Quantity of items left in dispenser A
Inventory port B			38	Quantity of items left in dispenser B
Resettable meters				Meters you can erase upon each visit on site
Port A out:			430	Quantity of products dispensed from A since last reset
Port B out:			72	Quantity of products dispensed from B since last reset
Coin box:			\$842.00	Value of the coins present in the coin box since last reset
Bill of :	\$5		36	Quantity of \$5 bills in bill cassette since last reset
Bill of :	\$10		15	Quantity of \$10 bills in bill cassette since last reset
Bill of :	\$20		20	Quantity of \$20 bills in bill cassette since last reset
Bill box:			\$730.00	Value of all the bills in the cassette since last reset
Cash sales:			\$1560.00	Value of the sales done using cash (coins & bills) since last reset
Cashless sales:			\$8420.00	Sales done using a card (credit/debit/prepaid) since last reset
Total sales:			\$10040.00	All the sales done since last reset
Selection 1:			430	Products sold using selection button #1 since last reset
Selection 2:			72	Products sold using selection button #2 since last reset
Non-resettable meters				Meters you cannot erase
Port A out:			602	Quantity of products dispensed from A since DAY ONE
Port B out:			244	Quantity of products dispensed from B since DAY ONE
Cash sales:			\$3880.00	Value of the sales done using cash (coins & bills) since DAY ONE
Cashless sales:			\$13040.00	Sales done using a card (credit/debit/prepaid) since DAY ONE
Total sales:			\$16920.00	All the sales done since DAY ONE
Selection 1:			602	Products sold using selection button #1 since DAY ONE
Selection 2:			244	Products sold using selection button #2 since DAY ONE

Last bill accepted Annex

Once last point to discuss that is somehow related to the audit is the Last Bills Accepted feature. As mentioned on page 33, the MAX controller keeps tracks of the last twenty banknotes inserted and accepted by the machine. This list is printable if needed by pressing on the **Blue button** when you see a bill description on the display.

Below is an example of such a printout. The most recent entry erases the oldest. In this example, the most recent was a \$20 inserted on November 22nd at 13:39. When it made its entry in the log, it pushed out the oldest bill that could have been a \$5 inserted on the 20th at 21:00. The value of the bill shown in an entry is equal to the credit the display showed when the bill was inserted. In other words, the display cannot show \$10 if the entry in the log shows \$20.

SEM MAX Control.		V2,0b2377
Machine 0001		
Last bills accepted		
2017-11-22 13:47		
2017-11-22	13:39	\$20
2017-11-22	13:26	\$20
2017-11-22	13:18	\$20
2017-11-22	13:15	\$10
2017-11-22	13:15	\$5
2017-11-22	13:14	\$5
2017-11-22	13:01	\$10
2017-11-21	13:00	\$10
2017-11-21	11:19	\$20
2017-11-21	10:36	\$20
2017-11-21	08:04	\$20
2017-11-21	06:45	\$10
2017-11-21	06:21	\$5
2017-11-21	06:21	\$10
2017-11-21	06:12	\$10
2017-11-21	06:06	\$20
2017-11-21	06:01	\$5
2017-11-20	23:49	\$20
2017-11-20	22:22	\$10
2017-11-20	22:11	\$10

Quick troubleshooting

In the next pages, we will go through a quick troubleshooting of the most common problem you may experience with this MAX machine.

Machine is not lit, looks dead	<p>No power to the machine. Make sure main switch is ON in the machine, if it is, check the fuse and replace if needed (see page 15)</p> <p>Make sure power goes from the power supply and from there to the MAX Controller module, (black rounded jack entering bottom left corner)</p> <p>Check power entry, circuit breaker.</p>
Machine is lit, but does not accept payment	<p>Machine is empty of products to sell. A sold-out machine will not accept payment. Display of the MAX controller will prompt the sold-out message.</p> <p>Machine is in error mode in all of its dispensers (card jam, dispenser not connected, etc.) Display will inform you. When cause of error solved, press the Red button on the MAX Controller to reset the machine.</p>
Accepts coins and cards but no bills	<p>Check the level of coin in the tubes of the coin changer. Fill to the top if needed.</p> <p>Check Currency settings (see pages 35+36).</p>
Not accepting coins at all.	<p>Coins can be jammed in upper part of the coin changer.</p> <p>Check Currency settings (see pages 35+36).</p>

Machine does not give out proper change	<p>Make sure your vend prices are set according to your signage.</p> <p>If prices are OK, check the payout manually by pressing on the payout buttons on the coin changer itself (A-B-C-D-E). One coin should fall into the delivery bin for each button you press.</p> <p>Make sure coin changer sliding bracket is pushed in the proper position and the wing nut tightens. If not, you will most likely find coins at the bottom of the cabinet.</p> <p>Make sure the proper coin sits in the proper tube. Remove coin cassette and look very carefully at each tube to see a potential intruder.</p>
Credit card reader not accepting cards	Network may be absent (consult displays on the card reader and the AMIT module)
Coins inserted but not going through.	Check coin changer for a jam. Remove coins if jammed. Make tests using the Test Mode (see page 38).
Machine accepts payment but no token comes out	Check token hoppers for damaged, bent, or sticky tokens.

Clearing an error message

To clear an error message, shut power OFF and turn it back ON. The display will prompt **Wait while initializing**. This will reset not only the MAX controller but also any dispenser or hopper connected to any port.

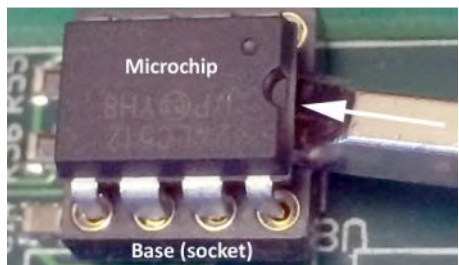
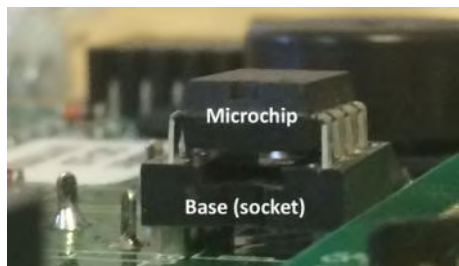
Replacing a MAX Controller

The MAX Controller of your machine is a very reliable circuit assembly. However, it may require, one day, to be replaced for some reasons. If it ever comes, you will greatly appreciate the memory transfer feature unique to all SEM products.

There is a small 8-pin memory chip on the circuit board containing the entire memory of the machine. It includes the audit, all the parameters, plus the internal hidden configuration. In the unlikely event that you need to replace the MAX controller, **shut power OFF**, remove the MAX controller from its position, locate the microchip, carefully remove it and install it onto the new circuit. This microchip **MUST** be inserted into its socket the proper way. There is a half-moon shape groove on the chip itself that indicates the way to insert the chip.

As seen below, when looking at the back of the MAX Controller, with all port connectors pointing down, the half-moon groove is on the right of the microchip. **Failure to comply with the above may result in losing all the data on this microchip, including the audit and all the multiple settings.**

Pressing and holding on any button while booting, will prompt the internal configuration code on the display, something like **000-03-10-02-004**.



WARNING !!!

Shut power OFF before unplugging or plugging any element (dispenser, hopper, coin changer, bill acceptor, credit card reader, circuit). Failure to comply may result in damages to the controller and/or the element.

Parts Listing

Description	P/N	Qty
36-inch MDB Harness Extension from Controller to Peripherals	A03610	1
Blue Selection Button	A09540	2
Cable Tie-Clip 0,500	G00815	12
Cage Nut 1/2-13 for T-Handle	B00290	2
EVO Hopper Extension Funnel	S06715	2
EVO Regular Hopper	S06710	2
MEI 5-tube Coin Changer (5-25-100-100-200¢)	7512i-DAE	1
Harness to external Light Indicator	A05530	1
Kept Nut 1/4-20	B00610	27
Kept Nut 6-32	B00490	13
Kept Nut 8-32	B00520	30
MAX Controller w/Housing	A08760	1
MDB Down Stack Canadian Banknote Acceptor	VX73D34CA00	1
Nayax Card Reader VPOS Black w/AMIT GSM	500015	1
Orange 24-V Tab Light Indicator	E01200	1
Orange Language Selection Button	A09570	1
Paymax BV Stopper UP	S06504	1
Paymax Coin Box	S06020	1
Paymax Coin Box Bracket	S06030	1
Paymax Coin Box Chrome Button	S04110	1
Paymax Coin Changer Bracket	S06000	1
Paymax Coin Insert Assembly w/Plunger	S06100	1
Paymax Custom Printer Assembly w/Harness	A09725	1
Paymax Delivery Bin	S05070	1
Paymax Display/SV6 Module Assembly	A09700	1
Paymax Dispenser shelf	S05080	1
Paymax Door Assembly w/NAMA Internal Plates	S05060	1
Paymax EVO Hopper Harness	A09750	2
Paymax Heater Kit DIN w/Thermostat	A09730	1
Paymax Lower Dispenser Shelf	S05080	1
Paymax MDB Display Harness & Printer Power	A09740	1
Paymax Power Supply 115/230-24VDC 2,5A desktop	E04350	1
Paymax Power Supply Assembly	K01630	1
Paymax Power Supply Holding Bracket	S06045	1
Paymax Stainless Steel Door Chute	S05090	2
Paymax Standard Housing	S05050	1
Paymax T-Handle Secure Internal Plate	S06090	2
Paymax Upper Dispenser Shelf	S05085	1
Red Cancel Button	A09560	1
T-Handle 5500/N9900 5,5 without Lock	S04640	2
VAN Lock Key (<i>specify key encoding</i>)	K5	2
VAN Lock Plug-Lock Standard for T-handle (<i>specify key encoding</i>)	4275S	2

Personal notes:

Use this page to write notes and memos.

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Our technical department wrote this manual. Even though the utmost attention was given to writing this manual, errors may have slipped by unnoticed. Any comments, suggestions, or errors should be sent directly to:

gilbert.guinard@sem.ca

Telephone: 514-334-7569 Toll free: 1-888-334-7569 Fax: 1-514-334-5922
support@sem.ca www.sem.ca