



 Manuale di Programmazione
Distributore automatico

Mod. *Selene-Tab*

 Programming Manual for the
Vending machine

Mod. *Selene-Tab*

 Programmierhandbuch
für Warenautomat

Mod. *Selene-Tab*

 Manual de Programación
distribuidor automatico

Mod. *Selene-Tab*

 Manuel de programmation
du distributeur automatique

Mod. *Selene-Tab*

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Vending Machine
Selene

Models Selene-Tab/Selene-Tab cb

Programming Manual

May 2017



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THIS MANUAL WILL HELP YOU TO BECOME MORE FAMILIAR WITH YOUR MACHINE. WE SUGGEST THAT YOU READ THROUGH IT VERY CAREFULLY AND FOLLOW THE INSTRUCTIONS PROVIDED.

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Programming Manual

Software version 1.00 and subsequent

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03		
04		
05		
Firma		

INTRODUCTION

The vending machine "Selene " is provided with a software allowing to display and set a wide range of parameters and functions in a very clear and easy way. The programming operations are performed through the display and keyboard normally used for the selection of products.



In the programming mode the function of the keys is different and the display will allow to see the parameters to be modified. Some machine commands can be protected by a password to prevent any non-authorized operators from using them.

PROGRAMMING MODE

In order to have access to the operation parameters it is necessary to get into “programming mode” through the push-button placed on the technical compartment protection casing, inside the machine door. In order to get back to normal operation mode, just press the key “7”; if no push-button is pressed, one minute after the machine will get out of the programming mode automatically.

On the access to the programming mode the display will show:

SERVICE

In order to get into the programming menu press the key “6”

The function of the keys used is the following:

- | | | |
|--------|---|---|
| Key ①: | Page Forward
Increase Value | -allows to scroll forward the menu of functions
-increases the present parameter by one unit |
| Key ②: | Page Backward
Diminish Value | -allows to scroll backward the menu of functions
-diminishes the present parameter by one unit |
| Key ⑥: | Enter / Save | -allows to get into a sub-menu and/or to confirm the modification made. |
| Key ⑦: | Esc | -allows to get out of a previously selected menu without making any modification. |
| Key ⑧: | Parameter resetting | -allows to reset a parameter |

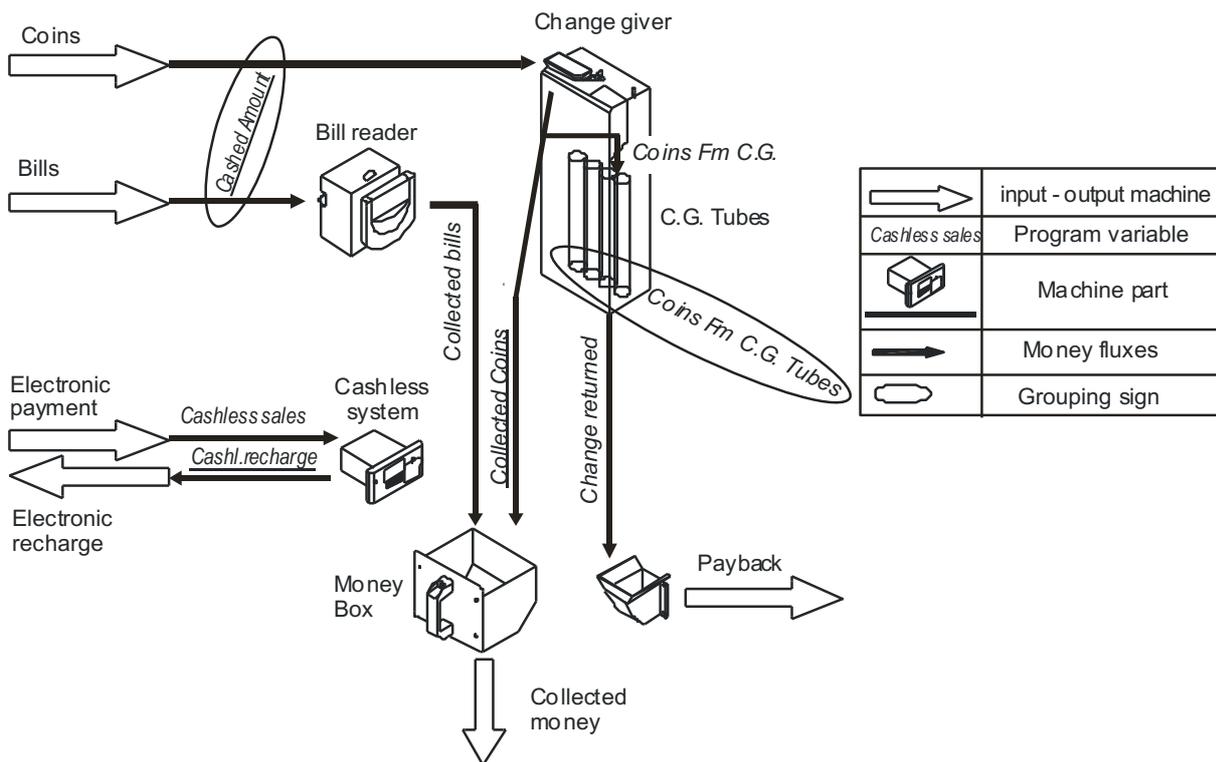
1_Accounting

Once you are in the programming mode, the machine display is ready to get into the accounting sub-menus by pressing the key “6”.

**01
ACCOUNTING**

The menu structure is described in paragraph 1. We are providing here below some information relating to the selection of sub-menus. In order to get into the sub-menus of main menu “ACCOUNTING” press the key “6”. In order to get from a sub-menu to another one press the key “1” to go forward and the key “2” to move back into the list of the main sub-menus of the “ATTACHMENT 1”. In order to get out from the main menu, press the key “7” , and the display will show again the starting notice. By pressing further the key “7” the machine will start working getting out of the programming mode. In order to move into the machine menus, press “1” to go to the following menu and “2” to move back (in this case, starting from “ACCOUNTING” you would reach “COUNTERS” or “STATISTICS” respectively).

The flows of money into the machine are shown in the following figure. The under stressed words are referred to the variables available in the section “ACCOUNTING”.





1_1 CASHED AMOUNT

The cashed amount includes the amount actually inserted in the machine

1_2 CASH SALES

The cash sales include the amount coming from cash sales.

1_3 CASHLESS SALES

The cashless sales include the total amount of sales made through cashless systems (chip cards rechargeable).

1_4 CHANGE GIVEN BACK

Total amount of coins that have been given back by the change giver.

1_5 RESIDUAL CREDIT

The total amount of credit that has not been used before the set time “*credit persistency*” expires.

1_6 COLLECTED COINS

Total amount of the coins into the cash box of the machine.

1_7 COLLECTED BILLS

Total amount of the bills collected by the bill reader

1_8 CASH RECHARGE

Total credit recharged in the chip card.

1_9 COINS FM C.G.

The value of the coins inserted in the Change Giver tubes by the Change Giver, after resetting the accounting parameters.

1_10 COINS FM C.G. TUBES

This parameter gives the total value present in the change giver tubes. It cannot be reset.

In this menu it is possible to refill the change giver tubes without affecting the collected amounts.



In order to refill the change giver get into this menu and put in the coins as required. The value of every coin, the number of the corresponding tube and the amount present in that tube will be shown through a window like this:

C . G . T U B E S C O I N S	
0 1 - (0 1 0)	1 . 2 0

Through the keys “1” and “2” it is also possible to see any time the amount of money present in every single tube. The numbers shown in this example show that in the tube 01 there are 0.10 EUR coins for a total of 1.20 EUR.

1_11 ACCOUNTING RESET

This command will reset all the parameters of the menu “ACCOUNTING” except for the parameter “coins fm c.g. tubes” which will get reset on complete emptying of the change giver.

By pressing the key “6” the following notice will appear:

A C C O U N T . R E S E T	
1 = Y E S	2 = N O

Pressing the key “1” cancels the data relating to accounting in a not reversible way. Pressing the key “2” takes back to the menu “ACCOUNTING RESETTING” without making any modification.

This command can be protected, as the other commands mentioned in Attachment 1 (marked PSW), by a password so that it can be operated by authorized people only.

When leaving the Project Vending factory, the machine has no password; a password can then be included by customers as mentioned under the section "SETTINGS".

In order to modify a parameter protected by a password, please refer to the menu “PASSWORD”.

1_12 REALATIONS BETWEEN THE MONEY FLOWS

In order to clarify the relations existing between the money flows monitored by the system, please note hereby the following two examples:



Value of the money coming into the machine.

- *After resetting of the accounting values and emptying of the cash box inside the machine, i.e. the actual increase of money present in the machine can be obtained by the relation:*

 **Total amount collected = “CASHED AMOUNT” – “CHANGE GIVEN BACK”**

- *The money present in the machine cash box ready to be drawn after last resetting can be obtained from the relation:*

 **Money present in the cash box = “COLLECTED COINS” + “COLLECTED BILLS”**



2_Counters

This menu provides all the information relating to the quantity of products sold from the various selections.

2_1 MAIN COUNTER

This sub-menu records the total number of products dispensed during machine operation, with no distinction of shelf or selection. This parameter can only be reset by restoring the machine in the standard configuration through the control “*STD Configuration*” (9_4).

2_2 COUNTERS

This sub-menu records the total number of products dispensed by every single enabled selection.

By pressing the key “6” the display will show:

C O U N T E R s . 1

By pressing further the key “6” it will be possible to see the total number of products dispensed by selection 1 (shelf 1 or spiral 1) , as shown in the window here below:

C O U N T E R s . 1
T O T 8 P C S

By pressing the keys “7” or “6” it will be possible to see the previous message; from there, in order to go forward or get back by one selection, press the keys “1” or “2” respectively. By pressing further the key “7” the main window will appear:

0 2 > 0 2
C O U N T E R S



2_3 COUNTERS RESETTING

It is used to reset all the partial counters of the machine selections. The procedure is the same as the menu “*ACCOUNTING RESETTING*” (1_8).

It does not reset the menu “*GENERAL ACCOUNTING*”. This command can be protected by a password in the same way as for accounting resetting.

2_4 INVENTORY RESETTING

The function “Inventory” gets operating automatically by inserting some values in the configuration of spirals, as mentioned in para. 8_2. Such function allows to prevent dispensing of any sold out products, thus avoiding any loss of money for the customer.

The function “*Inventory resetting*” is used to restart the machine full of products, after refilling

The procedure is the same as the menu “*ACCOUNTING RESETTING*”.

3_Prices

This menu allows to set the prices of the various selections quite easily, both with cash payment and cashless payment.

The prices inserted in the section “*Normal Prices*” are automatically inserted also in the section “*Cashless prices*”. Anyway, it is possible to favour the customers having the cashless key through the section “*Discount*”, where a discount can be set, in a given percentage, on all the cashless prices.

If on a selection a different price is to be set, i.e. a price not depending on the combination “*normal price + discount*”, ex. on the selection 1, this can be done directly in the section “*Cashless prices*” (3_2).

3_1 PRICES

This option allows to set the prices of all the selections present in the machine.

By pressing the key “6” the display will show:





On pressing further the key “6” the display will show the price set for the current selection, as shown here below:

PRICE SEL.1
EUR 1.50

At this point, the selection price can easily be set using the keys “1” and “2” to increase or diminish the price by one unit at a time. Once the required value has been reached, the price can be set by pressing the key “6”; the display will show:

PRICE SEL.1
PLEASE WAIT

Such notice will be on just the time required for storing the datum. Then the following will reappear: Through the keys “1” and “2” respectively it is possible to go to a subsequent selection or get back to a

PRICE SEL. 1

previous one. By keeping the keys “1” or “2” continuously pressed, the selection number will be scrolled, thus making the selection choice easier. The inserted price is automatically updated also in the section “Cashless prices”.

3_2 CASHLESS PRICES

The cashless prices are set for a machine provided with a cashless device.

Setting of prices for this type of payment can be performed in three different ways:

- *Automatically, the same prices as the normal ones.*
- *Selection by selection, in the same way as described in the section “Normal prices”, if a different price per each selection is to be set.*
- *Obtaining a reduced price, for the customers provided with a cashless key, price depending on the combination “normal prices + discount”.*

Setting of such prices does not affect the prices of customers that pay cash.



3_3DISCOUNT

The discount to make on the cashless prices is performed through this sub-menu.

The discount is made by rounding off a figure to the closest one with reference to what is set in the sub-menu "BASIC COIN". As an example, please refer to the parameters here below:

- *BASIC COIN* *Eur 0.05*
- *PRICE selection 1* *Eur 0.25*
- *DISCOUNT %* *10*
- *Reduced price calculated* *Eur 0.225*
- *CASHLESS PRICE selection 1* *Eur 0.20*

By pressing the key "6"; the display will show:



The discount rate is set through the keys "1" and "2".

Once the desired price has been reached, confirm through the key "6".

In order to get into the main menu without saving, press the key "7".

4_ Settings

This section allows to program the general machine parameters and in particular the password, when the possibility of access to modification of important parameters, such as "ACCOUNTING" and "COUNTERS" is to be restricted.

4_1 LANGUAGE

The languages available in the machine are: Italian, English, German, French, Spanish, Norwegian.



The selection of the key “6” allows to get into the menu for language choice; in order to move inside it, the keys “1” or “2” shall be used to scroll the available languages. Saving of the chosen language is performed through the key “6”.

4_2 CURRENCY

This parameter allows to add to a price or a credit figure an abbreviation identifying the currency used (ex. Euro = Eur; Ster. = Pound)

The programmable currencies are: Euro, Pound and Crowns. The relevant programming procedure is similar to what is described in the previous paragraph.

4_3 CLOCK SETTING

This section allows to save date and time. By pressing the key “6” the display will show:



Through the keys “1” and “2” it is possible to select the parameter chosen by the key “6”. The parameter value is set through the keys “1” and “2” and the relevant saving is performed by the key “6”.

The parameters that can be set are:

- *Set minutes* 0-59
- *Set hour* 0-23
- *Set date* 1-31
- *Set month* 0-12
- *Set year* 2-99



4_4 CONTRAST

The display contrast can be adjusted to a value between 1 and 100 (max. contrast). It is possible to have access to menu by pressing “6” and then, adjusting the value through the keys “1” and “2”, the selection is made by the key “6”.

4_5 PASSWORD

The machine leaves the manufacturer's workshops with no password. It is not possible to choose the parameters to protect: once the password has been set, the password itself is necessary to modify all the parameters marked with (PSW) in the Attachment 1.

The procedure to insert or modify the password is described hereinafter.

By pressing the key “6” it is possible to get into the menu to insert the password, and the display will show:



Go on assigning a number included between 0 and 9 to each one of the four figures shown, through the keys used for the selections. Once the setting of the four figures has been achieved, confirm the choice by pressing “1”. In order to get out of this function without saving, press “2”.

If a password has already been set in the machine, the display will show:



Digit the password. If the password is correct, the machine will give a sound signal for three times allowing to set a new password, following the same procedure as described here above.

Once the four-digit password has been inserted, confirm through the key “1”.

In order to get out of this function without saving the modifications press “2”.

If no protection through password is not to be used, the function can be disabled through the code 1111, equivalent to absent password.



Record and keep in a safe place the password. Its loss would be prejudicial to the use of the functions for which it is required!

We are describing hereinafter the mode to have access to resetting of the above mentioned parameters protected by a password, ex. the command “*Accounting Resetting*” of the menu “ACCOUNTING”.

By pressing the key “6” starting from the submenu “*Accounting resetting*” the display will show:

ACCOUNT. RESET

. . . .

The password will be covered by an asterisk. If a wrong password is set, the display will show:

ACCOUNT. RESET

PSW WRONG !!!

In this case press any key to get back to the previous menu. Vice versa, if the password is correct, the machine will give a sound signal for three times showing the message:

ACCOUNT. RESET

1 = YES 2 = NO

By pressing the key “1” the data relating to accounting will be cancelled in a non-reversible way. By pressing the key “2” you will get back to the menu “*ACCOUNTING RESETTING*” without making any modification.

4_6MACHINE CODE

A 16-character code identifying the machine. A machine code can be set for each customer. If a password is set, the code cannot be modified by anyone that does not know the password.

In order to insert/modify the code, get into the menu through key “6”. IN order to get out without saving modifications, press “7”.



4_7MAX. CHANGE

If a change giver unit is used, it is necessary to specify the value of max. change to be given back for any sale. In order to set such a value, select, in the programming mode, the parameter “Max. change” through the keys “1” and “2” and press “6”. If the European currency is set, the display will show:

MAX. CHANGE	
EUR	2.50

Through the keys “1” or “2” increase or decrease the value to the desired amount. In order to reset the value press the key “8”. To confirm the choice and get back to the previous menu press “6”. In order to get out without modifying the present setting, press “7”.

4_8CREDIT PERSISTENCY

This function allows to set the credit persistency time, i.e. the time during which any credit left after a sale is available for further selections. Values between 1 and 300 seconds can be set.



If the max. value of 300 s is set, the credit persistency becomes unlimited.

In the programming mode select the parameter “Credit persistency“ using the keys “1” and “2” and press the key “6”. The display will show:

CREDIT PERSISTENCY	
SEC.	300

Increase or decrease the value, expressed in seconds, through the keys “1” and “2” until reaching the desired time; in order to reset the parameter, press the key “8”; in order to save the modifications, press the key “6”. Press “7” to get back to the starting menu without saving.

4_9COUNTERS PASSWORD

In this menu it is possible to set a password that, inserted in normal operation mode, allows to visualize the counters of every single selection without having to open the machine to get into the programming mode. In order to set the password, get into the menu 4.9 “Counters PSW” through the key “6”.



The display will show:

D I G I T P A S S W O R D
1 1 1 1

Go on assigning a number included between 0 and 9 to each one of the four figures visualized through the keys used for the selections. Once the four figures have been inserted, press “6” and confirm through “1”. In order to get out without saving the modifications press “2”. In order to disable this function save the code 1111, equivalent to absent “counters password”.

4_10 MESSAGE OF GOOD WORKING ORDER

In good working order mode, the display shows on the upper part a message that can be customized. In order to insert/modify the message, get into the menu 4_10 through the key “6”. A window with the set message and a cursor will appear below the selected character:

M E S S A G E
_

Through the keys “1” and “2” move to cursor on the character to be modified and then, through the keys “3” e “4”, select the required value. Confirm the modifications through the key “6”. In order to get out without saving, press “7”.

4_11 MESSAGE OF OUT-OF-ORDER MACHINE

If the machine is out of order (9_2) the display shows on the lower part the message “Out of order” and on the upper part a message that can be customized. In order to insert/modify the message, get into the menu 4_11 through the key “6”. A window with the set message and a cursor below the selected character will appear:

M E S S A G E
_

Through the keys “1” and “2” move the cursor on the character to be modified and then through the keys “3” and “4” select the requested value. Confirm the modifications through the key “6” . In order to get out without saving press “7”.

4_12 LIGHT BULB ENABLING



Function not available for this model

5_Payment systems

In this section it is possible to set the main parameters relating to the configuration of the payment systems and the basic monetary unit for all the prices of the selections.

5_1 BASIC COIN

The basic coin is the minimum monetary unit to be handled by the system.

Definition of basic coin is obtained by setting the multiplicative factor and the decimal point as described hereinafter.

Example (currency: Euro):

- *Mult. factor 5* *decimal point 0.00* *basic coin 0.05 €*
- *Mult. factor 1* *decimal point 0.0* *basic coin 0.1 €*
- *Mult. factor 1* *decimal point 0* *basic coin 1 €*

5.1.1 Multiplicative factor. To set the multiplicative factor press the key “6”, the display will show:



By pressing again “6” the display will show:





Through the keys “1” and “2” it is possible to set the required multiplicative factor; once the chosen value has been reached, it can be saved by pressing the key “6”. In order to reset the parameter, press the key “8”.

5.1.2 Decimal point

In a similar way, it is possible to set the value of the decimal point, that can be fixed to the three following values:

- *Dec. point 0* *basic coin defined as whole units of the currency used*
- *Dec. point 0.0* *basic coin defined as tenths of the currency used*
- *Dec. point 0.00* *basic coin defined as hundredths of the currency used*

5_2 COIN SELECTOR

The machine can be equipped with a coin selector having a binary or parallel output.

In order to interface correctly a coin selector having a parallel or binary output with the vending machine it is necessary to program all the relevant lines, L1÷L6 respectively, or L1÷L8 with the relevant value. The non-used lines must be set to “0”.



Before programming the lines, both the currency and the basic coin must have been fixed.

The example hereinafter refers to a coin selector to be programmed in Euro, basic coin 0.05, with the following coins: 0.05, 0.10, 0.20, 0.50, 1 e 2 EUR.

In the programming mode, select the parameter “Coin selector lines“ using the keys “1” and “2” and press “6” .

The display will show:

LINE No. 1

Select the number of line to be set through the keys “1” and “2” and press “6”.



-  **For a correct visualisation of the credit it is essential to set the multiplicative factor (5_1_1) to the same value as the change giver is configured.**

-  **In order to refill the change giver tubes please refer to the menu 01_10 “Change giver tubes coins”.**

5_5 CASHLESS SYSTEM

It is also possible to install in the machine a cashless system to be set according to the following possible choices: “None”, “MDB” or “Executive”.

For further information, please contact the service centre.



Temperatures

In this section it is possible to program the temperatures to be kept by the cooling unit in the upper part of the machine (*Upper Temp.*) and in the lower part (*Lower Temp.*)

 **You can control every time the temperature in the machine, pressing key “1” four times consecutively, in normal operation mode.**

The lower temperature regulates the action of the cooling unit and the upper temperature of the inside ventilation (function available only on model Selene Plus).

 **In the models SELENE BASIC and CB the upper temperature is not monitored.**

6_Temperature setting

The lower temperature setting regulates the operation of the cooling unit. The cooling unit starts operating when the temperature exceeds a max. value equal to the total of the lower temperature plus the offset value (“*OFS*”) set in the menu “COOLING UNIT”. The system allows a tolerance equal to three tenths of degree centigrade.

In a similar way, the mechanical ventilation of the machine compartment takes place, which starts when exceeding the upper temperature added to the offset value (only model Selene Plus).

In order to set the upper temperature (only model Selene Plus) press “6” from the menu “*TEMPERATURE SETTING*”; the following message will appear:

**06 > 01 > 01
UPPER TEMP.**

Then, press again “6” to get into the upper temperature regulation. This window will appear:

**UPPER TEMP.
18 ° C**

The regulation of temp.value is performed through the keys “1” and “2”. Then confirm through the key “6”.



The lower temperature regulation is performed in the same way, by selecting in the sub-menu the parameter “*Lower Temp.*”.

The temperature can be adjusted within the interval as defined by parameters TLH, THH, TLL, THL, present in the menu ”REFRIGERATING UNIT”.

As an option, it is possible to show the temperature of lower machine compartment during normal operation instead of a clock. In order to implement such option, get into the menu “Low Temp.”; the following window will appear:



By pressing the key “3”, the display will show ON and temperature will be viewed. In order to get out of the programming mode, press the key “7” and check the result.

6_1 SET POINT SETTING

Parameter for Project Vending use.

7_Cooling unit

In this menu section the standard parameters of the cooling unit are defined, set by the manufacturer.

 **Programming of the operation parameters is performed according to specific environmental conditions in the destination country, or according to specific requirements on the order. Therefore, we recommend not to make any modification.**

The parameters that can be set in this section are summarized in the list hereinafter, which also includes the limit values to be set for the parameters and the standard values saved according to normal environmental conditions. In order to save the parameters, press the key “6”. Through the key “8” the selected parameter value can be reset. The keys “1” and “2” allow to move in the menu and modify the parameter values.

7_1 RESTORE STANDARD CONFIGURATION

The standard parameters of the cooling unit can be restored through the command “RESTORE STD CUP” present inside the menu “Cooling Unit”.

We are listing hereinafter the available parameters; the standard values assigned for each model are shown in the columns on the right.

ITEM	FUNCTION	LIMITS	PLUS	BASIC	CB
Ddt	Defrosting time	0 ÷ 99 minutes	15	15	15
DPt	Time interval between two subsequent defrosting	0 ÷ 99 hours	5	5	5
AdI	First operation time. Time allowed, on first starting, to reach the desired temperature range	0 ÷ 99 hours	5	5	5
Ald	Second operation time. Time allowed, after first operation, to reach the desired temperature range.	0 ÷ 99 hours	4	4	4
OFS	Max. temperature deviation from the fixed value before operation of the cooling unit / fan	0 ÷ 5 °C	3	3	3
HIA	Max. temperature allowed in the lower machine area.	0 ÷ 35 °C	30	30	30



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AdH	Max. persistency time allowed at the max. temperature (HIA).	0 ÷ 9 hours incr. by 0.5	9	9	9
TLH	Minimum temperature value at which the upper sensor can be programmed.	0 ÷ 30 °C	10	N.A.	N.A.
THH	Max. temperature value at which the upper sensor can be programmed.	0 ÷ 30 °C	25	N.A.	N.A.
TLL	Minimum temperature value at which the lower sensor can be programmed.	0 ÷ 30 °C	6	10	10
THL	Max. temperature value at which the lower sensor can be programmed.	0 ÷ 30 °C	18	18	18
CPS	Power supply to cooling unit	ON ÷ OFF	ON	ON	ON
ISH	For Project Vending. use only	0 ÷ 30 °C incr. by 0.25°C	3	3	3
ISL	For Project Vending use only	0 ÷ 30 °C incr. by 0.25°C	0	0	0



8 Configuration

The vending machine model “Selene” can include up to 12 shelves to be enabled or disabled individually. If the machine is provided with product presence sensors, they can be enabled or disabled. On each shelf the inventory function can be implemented to disable the selection when there are no more products. If the machine is provided with a GSM modem, it is possible to get the function “Minimum Stock” to warn (through an SMS) when the products on the shelves go down a programmable number.

8_1 CONFIGURATION OF SHELVES

The machine is supplied completely programmed in the requested configuration, therefore no modification in this section is to be made. Any modification should be made only to change the shelves configuration.

By pressing the key “6” the machine will show:

08 > 01
SHELVES CONF.

By pressing two times more the key “6” you will get into the following sub-menu:

SHELF NO.	1
ENABLED	

Through the keys “1” or “2” it is possible to enable or disable any shelf.

In order to confirm the value of the selections, press “6”. In order to get out without saving, press “7”.

If a shelf is disabled, the key relating to that selection will also be disabled, and even if pressed, no operation will be performed by the machine.

8_2 CONFIGURATION OF SPIRALS

The function of this submenu is to operate the “Inventory” function, giving the machine the information relating to quantity of products that each spiral can include when it is full.

8_3 MINIMUM STOCK

If the machine is provided with a GSM modem and the PC data downloading functions are used, it is possible to know when the number of products on a shelf goes below a given value, programmable in this menu. Once the programmed value has been reached, the modem will transmit to the PC the inventory status that very moment (number of products, minimum stock and max. capacity). In order to program the minimum stock value on a given shelf, go into the menu 8.3 “Minimum stock” and press the key “6”. Through the keys “1” and “2” choose the selection to be programmed. By pressing the key “6”, the value as set will be shown:

SEL. No.1 0

Through the keys “1” and “2” the parameter can be modified and then confirmed through the key “6”.

  **In order to have the system working properly, it is essential to use the “Inventory” function (menu 8.2).**

8_4 CONFIGURATION OF PRODUCT PRESENCE SENSORS



The machine is supplied completely programmed in the requested configuration, therefore no modification in this section is to be made. Any modification should be made only to change the shelves configuration.



Only in model SELENE CB is provided with the product presence sensors. In the models SELENE BASIC and PLUS the parameters relating to the product presence sensors must not be enabled.

If the machine is provided with product presence sensors, a product can be selected only if it is available, otherwise the display will show the message:

SOLD



If no product is available, the machine will show the message “Out of order” and the payment system will be disabled.

In order to modify the parameters of product presence sensors, select menu 8_4 and press the key “6” the machine will show:

F. PROD	N. 1
----------------	-------------

Through the keys “1” or “2” choose a shelf and press the key “6”.

The display will show (example shelf 2):

F. PROD.	NO. 1
ENABLED	

Through the keys “1” or “2” it is possible to enable or disable the monitoring of product presence.

In order to confirm the value, press “6”. In order to get out without saving, press “7”.

If the monitoring of product presence is disabled, the selection will be carried out even in case of non-availability of a given product.

In the models not provided with product presence sensors the INVENTORY (8_2) function can be used to advise non-availability of a given product.



9_Maintenance

The machine is provided with a trouble diagnostics menu able to provide very quickly information on state of motors, and proper operation of both the payment systems and the keyboard.

9_1 DIAGNOSTICS

Line Test

Parameter for Project Vending use.

Coin mechanism Test

This test allows to check proper interfacing between the electronic card and the coin mechanism. This test can only be performed with coin mechanism on, not with a change giver.

The display will show:

COIN MECH. TEST

Press the key “6” to confirm the choice. When putting in the coin mechanism the various coins used, the display will show the corresponding coin mechanism line. In order to get out and get back to the previous menu, press “7”.

Bill validator test

This test gives the same possibilities as the "COIN MECH TEST" referring to the bill reader.

Keyboard test

This test allows to check good working order of the keyboard. Press the key “6” to confirm the choice. Check on the display correspondence of pressed keys. In order to get back to the previous menu, wait a few seconds from last operation.

Temperature test

Parameter for Project Vending use.



Motor test repetition

This test allows to perform a test of proper working of all the machine motors. In order to get into the test press “6”. If a malfunction is noticed, the test will stop on the defective motor and the kind of error found is viewed.

Single Motor Test

This test allows to perform a test of proper working of a single motor that could be stopped or jammed. In order to get into this test, press “6”. Through the keys “1” and “2” select the number of the selection to test and confirm through the key “6”. If a malfunction is noticed, the kind of error found is visualized.

Single tests, various

Parameter for Project Vending use.

MDB test

This test allows to check MDB communication with a change giver. In order to get into this test press “6”. If the vending machine and the change giver can communicate, after a few moments the message “MDB Test” will appear as well as the amount of coins in the tubes. Inserting some coins the relevant value and channel will be shown. If any error occurs, it will be shown instead of the message “MDB test”.

Fan test

Parameter for Project Vending use.

Watch test

It shows the time set in the machine.

Lamp test

Parameter for Project Vending use.

F.P. test

Parameter for Project Vending use.



9_2 FAILURE LIST

When a failure is noticed during normal operation, the display will show the symbol @ on the left-hand side of the lower part and the problem will be included in the failure list. This list gives the last 15 failures occurred during machine operation after last resetting, in a chronological order, marked by a list number, error code and a short description.

The example hereinafter shows the motor 10 jammed at 10:15 am of the 8th August, with error code 02.

10:15 08/08	ER 02
01) MOTOR	F. 10

The table here below shows the possible machine errors, saved in the failure list.

Generic error codes

Code	CAUSE	EFFECT	POSSIBLE SOLUTION
Er 11 12	Breakage of a motor micro switch (Er 12) or jammed motor (Er 11)	Inhibition of relevant selection. The display will show for a few seconds “Error 11” or “Error 12”, then the machine stop and the display shows “Out of Order”.	Replace the damaged motor or remove the cause for the jam. Reset the failure list to remove the error signal.
Er 2	One or more product dispensing motors non-operating	Inhibition of non-working selection. The display Shows for a few seconds “Error 02”, then the machine continues working regularly; on a second request of the same selection the display will show “Not available”	Replace the non-working motor. Check integrity of the wiring that supplies power to the motor. Reset the failure list to remove the error signal.
Er 3	Set temperature has not been reached	The machine continues working regularly, but an alarm has occurred.	Check correct closing of machine door and product delivery door. Check



	(Low Temp.) in the allowed time (AdI).		ambient temperature. Increase value set for “Low Temp”.
Er 4	Temperature (Low Temp) did not reached set value in the allowed time (AId)	The machine continues working regularly, but an alarm has occurred.	Increase value set for “Low Temp”. Check presence of ice on evaporator. If required, carry out defrosting.
Er 5	Machine temperature (Low Temp) remained at max. value (HIA) for max. allowed time (AdH)	Machine stop. The display shows “Out of order”. Warning: some products could be deteriorated.	Check proper working of cooling unit. If required, carry out defrosting. Reset the failure list to remove the error signal.
Er 61 Er 62 Er 63 Er 64	Problems on sensors. Er 61/63: Low/High sensor short-circuited Er 62/64: Low/High sensor open.	The cooling unit continues cooling in a pre-set cycle in order to preserve the stored products.	Apply to service centre.
Er 9	Communication problems with MDB payment system.	The payment system does not work.	Check connections with payment system. Switch off and switch on the machine. Apply to service centre.

Parameter for Project Vending use.



*Error codes of MDB change giver**

Type of change giver	Code	CAUSE
MDB 1	Er 90	Detective Tube Sensor
	Er 91	Tube Jam
	Er 92	Rom checksum error
	Er 93	Coin jam
MDB 2	Er 94	General changer error
	Er 95	Discriminator module error
	Er 96	Accept gate module error
	Er 97	Separator module error
	Er 98	Dispenser module error
	Er 99	Coin Cassette/ tube module error

*For more information regarding errors on the change giver and their possible solution, please refer to the relevant manual.



Machine out of order

In out-of-order status the machine is completely blocked. The payment systems and all the selections are disabled. The machine will show “Out of order” and a message that can be customized in the menu 4_11.

The reasons for an out-of-order status can be as follows (some have already been described in the previous menus):

Error	CAUSE
Er 11	Motor stalled.
Er 12	Break of a motor micro switch. The motor continues turning
Er 2 on all the selections	All the product dispensing motors do not work
Er 5	The machine temperature (Temp. low) has been at max. value (HIA) for the max. time allowed (AdH)
All the products are sold out	The inventory function is to be used (8_2) if the machine has not been refilled after sell-out all the products (2_4).
Memory Corrupted	Apply to the customer service centre.

Once the cause of the problem has been eliminated, in order to re-establish the machine in good working order the failure list must be reset, as described in the following paragraph.

9_3RESETTING OF FAILURE LIST

This command resets the failure list and allows to restore proper operation of both the product dispensing and the cooling unit that might have been inhibited by a trouble. Of course, the problem should first have been solved.

Get into the menu through the key “6” and then press “1” to confirm resetting or “2” to cancel.



9_4 STANDARD CONFIGURATION

This command allows to set the machine parameters to the manufacturer's values, as shown in the following table:

DESCRIPTION	STD VALUES
Price setting	0
Counter of total dispensed products	0
Partial counters of dispensed products	0
Configuration of shelves	Shelves 1 through 10 enabled
Language setting	Italian
Currency setting	Euro
Setting of max. change	2.50 EUR
Setting of credit persistency	300 sec
Contrast regulation	70
Setting of payment system	6-Coin Selector
Setting of multiplicative factor	5
Setting of decimal point	0.00
Setting of cooling unit	Enabled
Temperature settings	SELENE PLUS 12 °C inf. 18 °C sup. SELENE BASIC 14 °C SELENE CB 14 °C

This command is protected by a password.



10_ MODEM SET UP

Though installation in the machine of a proper GSM modem in the “Selene ” machine and a central communication unit to be connected with a PC it is possible to receive information on machine operation at a distance, and download to the PC data relating to amounts collected, counters, prices, temperatures, compressor, inventory, as well as information on possible failures.

10_1 OFFICE TELEPHONE NUMBER

In this menu the telephone number of the SIM card installed in the central unit shall be inserted.

In order to insert/modify the code get into this menu by pressing the key “6”. A window with the set number and a cursor below the selected figure will appear (ex. 393331234567):

3 9 3 3 3 1 2 3 4 5 6 7 - - - -
—

Through the keys “1” and “2” move the cursor to the figure to be modified and then through the keys “3” and “4” select the desired value.

Insert the number with the proper country code with no zero (ex. 39 for Italy). At the end of the number insert some hyphens to fill the line.

Press “6” to confirm the modifications. In order to get out without saving press “7”.

10_2 MODEM TEST

This test provides values relating to power and quality of the signal received by the Modem. If no value is provided, check that the modem should be enabled (menu 10.4).

10_3 SMS MAILING FREQUENCY

It is possible to set the modem mailing frequency regarding machine inventory (number of products, minimum stock and max. capacity). To select frequency press the keys “1” and “2” and confirm through “6”. The SMS message will be transmitted after 4:00 am of the set date.



10_4 MODEM ENABLING

The modem can be enabled or disabled through the keys “1” and “2”. To confirm the choice press the key “6”.

Attachment 1

Menu of « Selene »

1_Attachment 1 - Introduction

The following page describes the menu structure of the “Selene” vending machine with the same numbering present in the machine menu. Such numbering is also kept in the numbering of the programming manual.

The cascade structure is summarised to provide a quick reference regarding all the available options and parameters, as well as the relevant layout.

Ten main menus are present, each one having a variable number of sub-menus, structured in further options.

 **The machine is supplied already programmed in the configuration. Therefore, programming of menus “CONFIGURATION”, “PAYMENT SYSTEM” or “COOLING UNIT” is useless or even dangerous. On the contrary, it is necessary to set the value of the section “PRICES”.**

The commands marked with (PSW) can be protected by a password in order to be inhibited to non-authorised operators.



10_ Serial Protocol RS232

The communication protocol between the vending machine mod. "Selene" and the central unit is implemented through a serial communication RS232, 3-wire, TX, RX, GND, 9600, 8, n, 1, without flow control.

For the relevant connection, the machine is provided with a cable located inside the technical compartment, with a standard female connector, 9-pin, D-Sub.

The machine can receive two commands from the central unit: the VEND command for a sale and the STAT command to know the status of a selection. The "STAT" command can also be used to know if the machine is connected with the central unit, as there is no other feedback.

Should any dispensing problem occur, the machine will send the ERR02 error message and the selection will get disabled. Instead, if the machine goes out of service, the ERR01 error message will be sent.

In order to know exactly the problem occurred, please see the Failures List on the machine programming menu.

We are summarizing here below the two commands and the possible responses from the machine:

Command for machine sales:

- VENDXX Request for a sale (XX = selection number)

Possible responses:

-NOACK Unrecognized command or nonexistent selection
-ACKXX Request for a sale XX, recognized
-OK XX Successful sale XX
-ERR02 Unsuccessful sale
-ERR01 Machine out of service
-SOLD Empty selection (if the inventory function is used)

Command for machine status:

- STATXX Request for status of a selection (XX = selection number)

Possible responses:

-NOACK Unrecognized command or nonexistent selection
-OK XX The selection is working properly
-ERR02 The selection doesn't work
-ERR01 Machine out of service
-SOLD Empty selection (if the inventory function is used)

Each command must be sent in ASCII code and followed by a CR character.



1_ Attachment 1 - Menu

- 2_ ACCOUNTING
 - 2_1 CASED AMOUNT
 - 2_2 CASH SALES
 - 2_3 CASHLESS SALES
 - 2_4 CHANGE RETURNED
 - 2_5 RESIDUAL CREDIT
 - 2_6 COLLECTED COINS
 - 2_7 COLLECTED BILLS
 - 2_8 CASH RECHARGE
 - 2_9 COINS FM C.G.
 - 2_10 COINS FM C.G. TUBES
 - 2_11 ACCOUNTING RESET
- 3_ COUNTERS
 - 3_1 MAIN COUNTER
 - 3_2 COUNTERS
 - 3_3 COUNTERS RESET (PSW)
 - 3_4 INVENTORY RESET
- 4_ PRICES
 - 4_1 NORMAL PRICES
 - 4_2 CASHLESS PRICES
 - 4_3 DISCOUNT
- 5_ SETTINGS
 - 5_1 LANGUAGE
 - 5_2 CURRENCY
 - 5_3 CLOCK SETTING
 - 5_3_1 MINUTES SETTING
 - 5_3_2 HOUR SETTING
 - 5_3_3 DATE SETTING
 - 5_3_4 MONTH SETTING
 - 5_3_5 YEAR SETTING
 - 5_4 CONTRAST
 - 5_5 PASSWORD (PSW)
 - 5_6 MACHINE CODE (PSW)
 - 5_7 MAX. CHANGE
 - 5_8 CREDIT PERSIST.
 - 5_9 COUNTERS PSW
 - 5_10 MSG OF GOOD WORKING ORDER
 - 5_11 MSG OF MACHINE OUT OF ORDER
 - 5_12 LIGHT BULB ENABLING (NON AVAILABLE)
- 6_ PAYMENT SYSTEMS
 - 6_1 BASIC COIN
 - 6_1_1 MULTIPL. FACTOR
 - 6_1_2 DECIMAL POINT
 - 6_2 COIN MECHANISM
 - 6_2_1 TYPE
 - 6_2_2 LINES
 - 6_3 BILL READER
 - 6_4 CHANGE GIVER
 - 6_5 CASHLESS SYSTEM
- 7_ TEMPERATURES
 - 7_1 TEMPERATURE SETTING
 - UPPER TEMP. +/-
 - LOWER TEMP +/-
 - 7_2 SET POINT SETT
(NON AVAILABLE)
- 8_ COOLING UNIT (IN SUCCESSION)
 - DDT TLH
 - DPT THH
 - ADI TLL
 - ALD THL
 - OFS CPS
 - HIA ISH
 - ADH ISL
 - RESTORE STD CUP
- 9_ CONFIGURATION
 - 9_1 SHELVES CONFIG.
 - SELECTION NO. 1
 -
 - SELECTION NO. 12
 - 9_2 SPIRALS CONFIG.
 - INVENT. SEL. 1
 -
 - INVENT. SEL. 12
 - 9_3 MINIMUM STOCK
 - SEL. 1
 -
 - SEL. 12
 - 9_4 F.P. CONFIG.
 - F. PROD. SEL. 1
 -
 - F. PROD. SEL. 12
- 10_ MAINTENANCE
 - 10_1 DIAGNOSTICS
 - 10_1_1 TEST LINE (NON AVAILABLE)
 - 10_1_2 COIN MECH TEST
 - 10_1_3 BILL READER TEST
 - 10_1_4 KEYBOARD TEST
 - 10_1_5 TEMPERATURE TEST
 - 10_1_6 MOTOR TEST REP
 - 10_1_7 MOTOR TEST SNG.
 - 10_1_8 TEST SGN VARIOUS
 - 10_1_9 MDB TEST
 - 10_1_10 FAN TEST
 - 10_1_11 WATCH TEST
 - 10_1_12 LAMP TEST
 - 10_1_13 F.P. TEST
 - 10_2 FAILURE LIST



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10_3 RESET F.L.
10_4 STD. CONFIG. (PSW)
10_5 INFO

10_ MODEM TEST

10_1 OFFICE TELEPHONE NUMBER
10_2 MODEM TEST
10_3 SMS MAILING FREQUENCY
10_4 MODEM ENABLING

