
INSTALLATION, OPERATION, MAINTENANCE

Samba Classic

EN English



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ad unico socio

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Reg. Produttori A.E.E.: IT08020000001054

Valbrembo, 01/01/2010

DICHIARAZIONE DI CONFORMITA'
DECLARATION OF CONFORMITY
DÉCLARATION DE CONFORMITÉ
KONFORMITÄTSEKTLÄRUNG
DECLARACIÓN DE CONFORMIDAD
DECLARAÇÃO DE CONFORMIDADE
VERKLARING VAN OVEREENSTEMMING



Italiano Si dichiara che la macchina, descritta nella targhetta di identificazione, è conforme alle disposizioni legislative delle Direttive Europee elencate a lato e successive modifiche ed integrazioni.

English The machine described in the identification plate conforms to the legislative directions of the European directives listed at side and further amendments and integrations

Français La machine décrite sur la plaquette d'identification est conforme aux dispositions légales des directives européennes énoncées ci-contre et modifications et intégrations successives

Deutsch Das auf dem Typenschild beschriebene Gerät entspricht den rechts aufgeführten gesetzlichen Europäischen Richtlinien, sowie anschließenden Änderungen und Ergänzungen

Español Se declara que la máquina, descrita en la etiqueta de identificación, cumple con las disposiciones legislativas de las Directrices Europeas listadas al margen y de sus sucesivas modificaciones e integraciones

Português Declara-se que a máquina, descrita na placa de identificação está conforme as disposições legislativas das Diretrizes Europeias elencadas aqui ao lado e sucessivas modificações e integrações

Nederlands De machine beschreven op het identificatieplaatje is conform de wetsbepalingen van de Europese Richtlijnen die hiernaast vermeld worden en latere amendementen en aanvullingen

Italiano Le norme armonizzate o le specifiche tecniche (designazioni) che sono state applicate in accordo con le regole della buona arte in materia di sicurezza in vigore nella UE sono:

English The harmonised standards or technical specifications (designations) which comply with good engineering practice in safety matters in force within the EU have been applied are:

Français Les normes harmonisées ou les spécifications techniques (désignations) qui ont été appliquées conformément aux règles de la bonne pratique en matière de sécurité en vigueur dans l'UE sont :

Deutsch Die harmonisierten Standards oder technischen Spezifikationen (Bestimmungen), die den Regeln der Kunst hinsichtlich den in der EU geltenden Sicherheitsnormen entsprechen, sind:

Español Las normas armonizadas o las especificaciones técnicas (designaciones) que han sido aplicadas de acuerdo con las reglas de la buena práctica en materia de seguridad vigentes en la UE son:

Português As normas harmonizadas ou as especificações técnicas (designações) que foram aplicadas de acordo com boas regras de engenharia em matéria de segurança em vigor na UE são:

Nederlands De geharmoniseerde normen of technische specificaties (aanwijzingen) die toegepast werden volgens de in de EU van kracht zijnde eisen van goed vakmanschap inzake veiligheid zijn de volgende:

Targhetta di identificazione
Identification label

Direttive europee European directives	Sostituita da Repealed by
2006/42/EC	
73/23/EC + 93/68/CE	2006/95/CE
89/336/EC + 92/31/CE + 93/68/CE	2004/108/EC
90/128/EC	2002/72/CE
80/590/EEC and 89/109/EEC	EC 1935/2004

Norme armonizzate / Specifiche tecniche	Harmonised standards Technical specifications
CEI EN 60335-1 : 2002 + A11:20005 +A1:2005 + A12:2006 + A2:2006	
CEI EN 60335-2-75 : 2004 + A1:2005 + A11:2006	
EN 50366:2003 + A1:2006	
EN ISO 11201 and EN ISO 3744	
EN 55014-1 + A1+ A2	
EN 55022 + A1 + A2	
EN 55014-2 + A1	
EN 61000-3-2	
EN 61000-3-3 + A1	
EN 61000-4-2 + A1 + A2	
EN 61000-4-3 + A1 + A2	
EN 61000-4-4 + A1	
EN 61000-4-5 + A1	
EN 61000-4-6 + A1	
EN 61000-4-11 + A1	

Il fascicolo tecnico è costituito presso:
The technical file is compiled at:
N&W GLOBAL VENDING S.p.A.


ANTONIO CAVO

C.E.O

Declaration of conformity

The declaration of conformity with the European Directives and Standards provided for by the laws in force is supplied by the first page of this manual, which is an integral part of the machine.

CE It is declared that the machine described by the identification plate is in compliance with the provisions of the European Directives, its subsequent amendments and integrations as well as with the harmonised standards or technical specifications (designations) applied in compliance with the safety rules of good practice enforced in the EU and listed on the same page.

Warnings

FOR INSTALLATION

The installation and any subsequent maintenance operation shall be carried out by the personnel skilled and trained on the utilisation of the machine according to the rules in force.

The machine is sold without any payment system. As a consequence, only the installer will be liable for any damage that may be caused to the machine or to things and persons by an incorrect installation of the payment system.

The intactness of the machine and its compliance with the standards of relevant installations must be checked by skilled personnel at least once a year.

Package materials must be disposed of in observance of the environment.

FOR USE

The machine can be used by children and by people having reduced physical, sensorial or mental skills under the supervision of people responsible for their safety or specifically trained on the use of the machine. Children shall be prevented from playing with the machine by the people in charge of their supervision.

FOR THE ENVIRONMENT

Some tricks will help you to protect the environment:

- use biodegradable products to clean the machine;
- properly dispose of all the packages of the products used to fill and clean the machine;
- power off the machine during inactivity for energy saving.

FOR SCRAPPING



The symbol shows that the machine can not be disposed of as common waste, but it must be disposed of as it is established by the 2002/96/CE (Waste Electrical and Electronics Equipments - WEEE) European Directive and by the national laws arising out of it in order to prevent any negative consequence for environment and human health.

The differentiated collection of the machine at the end of its life is organised and managed by the manufacturer. For the correct disposal of the machine contact the sales point where you have purchased the machine or our after-sales service.

The unlawful disposal of the machine implies the application of the administrative sanctions provided for by the rules in force.

Attention!

If the machine is equipped with a cooling system, the cooling unit contains HFC-R134a fluoridised greenhouse effect gas ruled by the Kyoto protocol, the total heating potential of which is equal to 1300.



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VIA DEL CHIOSO 13 - 24030 MOZZO (BG)

VIA DELEDDA 16 - 24030 MAPELLO (BG)

VIA SALVO D'ACQUISTO 7/9 - 24050 GRASSOBBIO (BG)

for the following field of activities

Design and manufacturing of electronical and electromechanical vending machines

Refer to quality manual for details of applications to ISO 9001:2008 requirements

has implemented and maintains a

Quality Management System

which fulfills the requirements of the following standard

ISO 9001:2008

Issued on: 2010 - 04 - 27

Registration Number:

IT - 12979



René Wasmer

President of IQNET



Gianrenzo Prati

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VIA DEL CHIOSO 13 - 24030 MOZZO (BG)

for the following field of activities

Design, production and sales of vending machine

has implemented and maintains a

Environmental Management System

which fulfills the requirements of the following standard

ISO 14001:2004

Issued on: 2010 - 07 - 07

Registration Number:

IT - 8753



René Wasmer

President of IQNET



Gianrenzo Prati

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English

TABLE OF CONTENTS

	PAGE		PAGE
DECLARATION OF CONFORMITY			
WARNINGS			
INTRODUCTION	2	FILLER MENU	17
IDENTIFICATION OF THE MACHINE AND ITS FEATURES	2	STATISTICS	17
IN CASE OF FAILURE	2	SELECTION PRICES	18
TRANSPORT AND STORAGE	2	MANAGEMENT OF CHANGE TUBES	18
USING THE VENDING MACHINES OF PACKAGED PRODUCTS	3	SPECIAL SELECTIONS	19
POSITIONING OF THE VENDING MACHINE	3	TEST	19
		GSM	20
TECHNICAL FEATURES	3	EVADTS TRANSFER	20
VARIABLE COMBINATION LOCK	5	TECHNICIAN MENU	20
FILLING AND CLEANING	6	PAYMENT SYSTEMS	21
MAIN SWITCH	6	PRICES	25
HYGIENE OF THE MACHINE	6	MACHINE CONFIGURATION	25
		TEST	29
CONTROLS AND COMPONENTS	6	STATISTICS	30
		COMMUNICATION	33
TYPES OF TRAYS	7	FAILURES	34
STANDARD TRAYS	7	MAINTENANCE	35
TRAYS OF BOTTLES AND CANS	8		
		STANDARD TRAY CONFIGURATION	35
PRODUCT LOADING	8	PRODUCT SPACER	35
STANDARD TRAYS	8	PRODUCT EJECTOR	36
TRAYS OF BOTTLES / CANS	9	PRODUCT DIVIDER	36
POWER ON	10	PRODUCT RAISED SUPPORT	36
OPERATING TEMPERATURE	10	CHANGING THE TRAY CONFIGURATION	36
CLEANING THE VENTILATION GRIDS OF THE COOLING SYSTEM	10	REPLACING THE SPIRALS	37
INSTALLATION	11	CONFIGURATION OF BOTTLE/CAN TRAYS	38
MAIN SWITCH	11	CHANGING THE NUMBER OF TRAYS	38
UNPACKING THE VENDING MACHINE	11	CONFIGURATION OF THE COLD AIR DISTRIBUTION GRID	39
POSITIONING OF THE VENDING MACHINE	11	RECLINING TRAYS	39
PAYMENT SYSTEM ASSEMBLY	12	REMOVING THE TRAYS	39
ELECTRICAL CONNECTION	12	BOARD FUNCTIONS	40
INTERNAL COMPONENTS	13	CPU BOARD	40
COOLING UNIT	13	SOFTWARE UPDATE	40
POWER ON	14	GLASSFRONT LIGHTING BOARD	41
		ELECTRIC PANEL	41
OPERATION	14	ACCESS TO THE COOLING UNIT	42
DISPENSING PRODUCTS	14	WIRING DIAGRAMS	43
MANUAL DISPENSING COMPARTMENT RELEASE	14		
PROGRAMMING	15		
NAVIGATION MODE	15		
DIRECT SELECTION KEYBOARD	16		
NORMAL OPERATION MODE	16		

Introduction

The technical documentation supplied is an integral part of the equipment and it must therefore accompany the equipment whenever it is either moved or transferred to enable the various operators to consult it.

Before starting to install and use the machine, it is necessary to carefully read and understand the content of the documentation since it can supply important information on installation safety, utilisation rules and maintenance operations.

THE MANUAL IS DIVIDED INTO THREE CHAPTERS.

The **first** chapter is intended to describe the ordinary filling and cleaning operations that shall be carried out in areas of the machine that can be accessed with the simple use of the door key, without using any other tool. The **second** chapter contains the instructions for correct installation as well as the information necessary for optimal utilisation of the machine performance. The **third** chapter is intended to describe the maintenance operations involving the use of tools for access to potentially dangerous areas.

The operations described in the second and third chapter must be carried out only by the personnel who have a specific knowledge of the machine operation from the point of view of electric safety and health rules.

IDENTIFICATION OF THE MACHINE AND ITS FEATURES

Every single machine is identified by a specific serial number that can be found on the rating plate arranged inside on the right side.

The plate (see figure) is the only one recognised by the manufacturer and it contains all the data that enable the manufacturer to supply technical information of any kind in a quick and safe manner and to facilitate the management of spare parts.

IN CASE OF FAILURE

In most cases, any technical problem can be solved by carrying out minor operations. As a consequence, we suggest carefully reading this manual before contacting the manufacturer.

In case of failures or malfunctions that can not be solved, please apply to:

N&W GLOBAL VENDING SpA
Via Roma 24
24030 Valbrembo
Italy - Tel. +39 - 035606111

TRANSPORT AND STORAGE

To avoid damaging the machine, loading and unloading operations shall be performed with great care. It is possible to lift the machine by means of a motor-driven or manual lift truck by positioning the forks beneath the machine and on the side clearly stated by the symbol on the cardboard package.

Please avoid:

- overturning the vending machine;
- dragging the vending machine by means of ropes or alike;
- lifting the vending machine by its sides;
- lifting the vending machine by means of slings or ropes
- shaking the vending machine.

For storage it is necessary to keep the room dry at a temperature between 0 and 40 °C.

Never stack several machines and never forget to keep the vertical position specified by the arrows on the package.

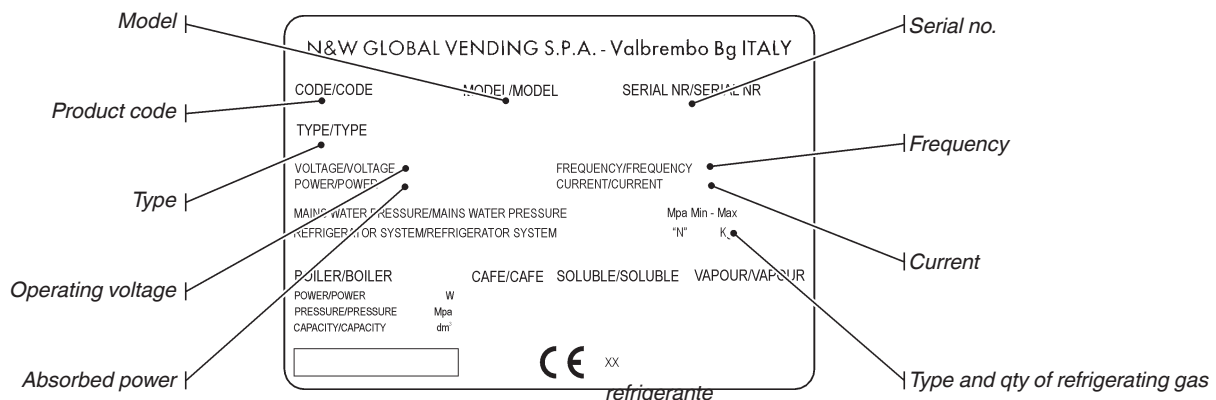


Fig. 1

USING THE VENDING MACHINES OF PACKAGED PRODUCTS

The control electronics of the machine enables you to separately assign every single selection a different sales price. The various functions are programmed by means of the selection pushbutton-panel without adding any specific equipment.

The vending machine can only be used to sell and dispense packaged products that do not need refrigeration to be preserved (snacks).

Strictly comply with the producer's instructions on the temperature of preservation and the pull date for each product.

Any other use shall be considered as improper and thus potentially dangerous.

POSITIONING THE VENDING MACHINE

The machine is not suitable for installation outdoors. It must be installed in a dry room at a temperature ranging from 5°C to 34°C. It can not be installed in a room where water jets are used for cleaning (e.g. large kitchens, etc.). The ventilation system enables you to place the back of the machine against the wall, thus saving space, since air is aspirated from the bottom and discharged through a grid in the front.

Attention!!!

If not correct, ventilation can compromise the good operation of the cooling unit.

The machine must be arranged in such a way that the maximum inclination will not exceed 2°.

If necessary, level it by using the adjustable feet.

Attention!!!

If completely loaded, the machine can reach a total static weight on the 4 support feet, ranging from 300 to 600 Kg according to the model.

The structure supporting the machine shall be suitable for this weight to avoid any dangerous condition, such as collapse, subsidence, damage and, in general, any kind of instability.

TECHNICAL FEATURES

- Height	mm	1830
- Width	mm	890
- Depth	mm	793
- Overall dim. with open door	mm	1495
- Overall dim. with open slide-in comp.	mm	1205
- Loadless weight	Kg	280
- Power supply voltage	V~	230
- Power supply frequency	Hz	50
- Absorbed power	W	470

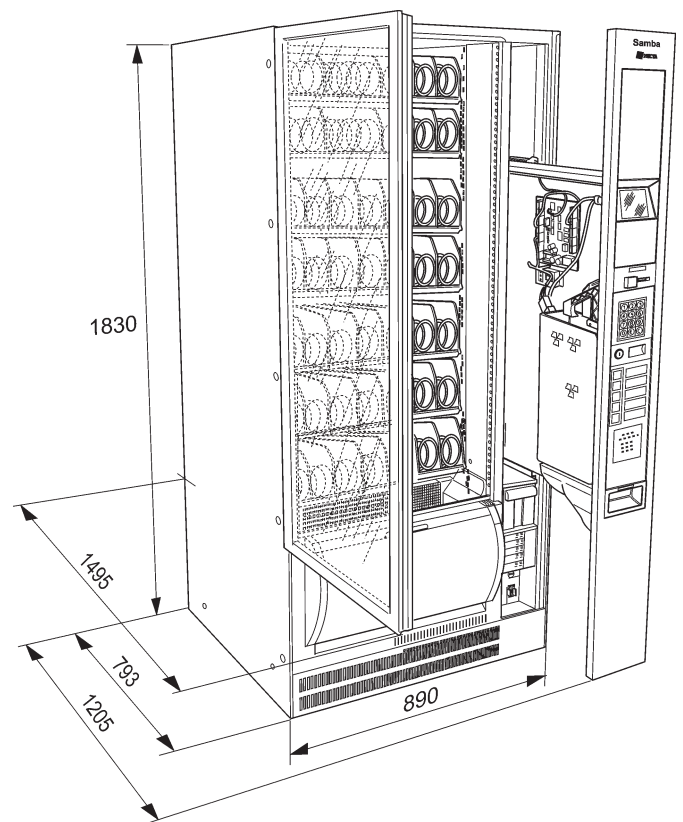


Fig. 2

MAXIMUM OPERATING CONDITIONS:

- | | | |
|---------------------|----|----|
| - Room temperature | °C | 34 |
| - Relative humidity | % | 65 |

COOLING SYSTEM:

- | | | |
|-------------------------------------|---|-----|
| - Compressor refrigerating capacity | W | 340 |
| - Ventilated evaporator | | |
| - Programmable defrost cycle | | |

PAYMENT SYSTEM

The machine can be electrically arranged for the systems with Executive, MDB and BDV protocol as well as 24 Vdc validators.

The space is not only arranged to accommodate the coin mechanism, but also to assemble the most widespread payment systems (optionals).

SALES PRICES

You can set a different sales price for every single selection.

COIN BOX

You can also mount a cover and a lock.

CONTROLS AND SAFETY DEVICES

- payment system compartment switch
- maximum sales motor supply time
- compressor heat protection
- line fuses
- fuses on the primary and secondary transformer,

ACCESSORIES

A wide range of accessories can be mounted on the machine to vary its performances:

The assembly kits are supplied with mounting and testing instructions that shall be strictly followed to preserve the machine safety.

Assembly and any subsequent testing operation must be carried out by qualified personnel who have a specific knowledge of the machine operation from the point of view of electric safety and health rules.

ELECTRIC ENERGY CONSUMPTION

The electric energy consumption of the machine will depend upon many factors such as the temperature and ventilation of the room where the machine is installed, the product load temperature and the temperature inside the refrigerated boxes.

On average operation conditions, i.e:

- | | | |
|---|----|----|
| - room temperature: | °C | 25 |
| - temperature in the refrigerated box: | °C | 8 |
| - temperature of loaded products (completely empty machine) | °C | 20 |

The following energy consumption values have been measured:

- | | | |
|-----------------------------|----|------|
| - average daily consumption | KW | 5.33 |
|-----------------------------|----|------|

The energy consumption calculated on the average values above shall be understood as merely indicative.

VARIABLE COMBINATION LOCK

Some models are supplied with a variable combination lock.

The lock is complete with a silver key for normal opening and closing operations.

It is possible to customise the locks by using a kit made available as an accessory and intended to change the lock combination.

The kit is composed by a change key (black) of the current combination as well as by change (gold) and use (silver) keys of the new combination.

Sets of change and use keys with other combinations can be supplied upon request.

Moreover, further sets of use keys (silver) may be requested by specifying the combination stamped on the keys.

Generally, only the use key (silver) shall be used whereas the combination change keys (gold) can be kept as spare keys.

Do not use the change key for usual opening operations since this may damage the lock.

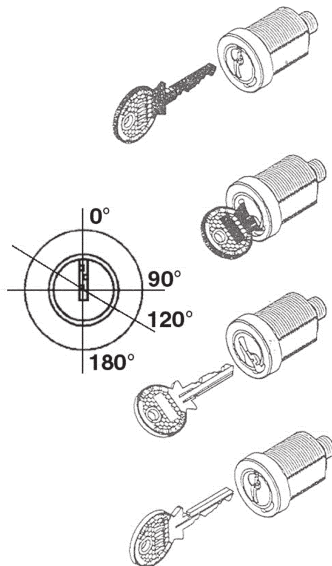
TO CHANGE THE COMBINATION:

- open the sliding compartment of the machine to avoid having to force the rotation;
- slightly lubricate by using a spray inside the lock;
- insert the current change key (black) and turn it until you reach the change position (reference notch at 120°);
- remove the current change key and insert the change key (gold) with the new combination;
- turn it until you reach the close position (0°) and remove the change key.

The lock has now assumed the new combination.

The keys of the old combination can be no longer used for the new combination.

Fig. 3



Chapter 1

Filling and cleaning

The machine is not suitable for installation outdoors. It must be installed in a dry room at a temperature ranging from 5°C to 34°C. It can not be installed in a room where water jets are used for cleaning (e.g. large kitchens, etc).

MAIN SWITCH

If you extract the slide-in compartment, a switch (see fig. 4) will power off the electric installation of the equipment to service and clean on fully safe conditions.

Only the parts protected by covers and highlighted by the label “power off before removing the cover” remain live.

HYGIENE OF THE MACHINE

The operator of an automatic vending machine is responsible for its hygiene and cleaning on the basis of the health and safety rules in force.

The vending machine can only be used to sell and dispense packaged products that do not need refrigeration to be preserved (snacks).

Strictly comply with the producer’s instructions on the storage method and pull date for each product.

Any other use shall be considered as improper and thus potentially dangerous.

It is recommended to use sanitising products to clean the surfaces, even if not directly in contact with food-stuffs.

Some parts of the machine can be damaged by corrosive detergents.

The manufacturer will disclaim all responsibility for any damage caused to people by the non-observance of the rules in force.

CONTROLS AND COMPONENTS

The controls and information for the user are arranged outside the slide-in compartment (see fig. 4).

- The credit and all operation messages are displayed.

- Selection keyboard: of a numeric type. To dispense the product, select the number corresponding to the product you wish.

Press key **[C]** to delete a selection you have reserved.

Key **[E]** and **[0]** are not available for the user. They are only used for programming.

- Coin insert, button and coin return flap.

The machine may have the following standard or optional components:

- Standard trays with double or single spirals;

- Bottle trays configured to dispense plastic bottles and “slim” cans,

- Product passage photocells

- Dispensing compartment lock

- Direct selection keyboard

NOISE LEVEL

The continuous, equivalent, weighted sound pressure level is below 70 dB.

OPERATION TEMPERATURE

The machine may only work at a temperature between 5 and 34 °C.

The refrigerated box temperature can be regulated between 5 and 20°C (8°C by default)

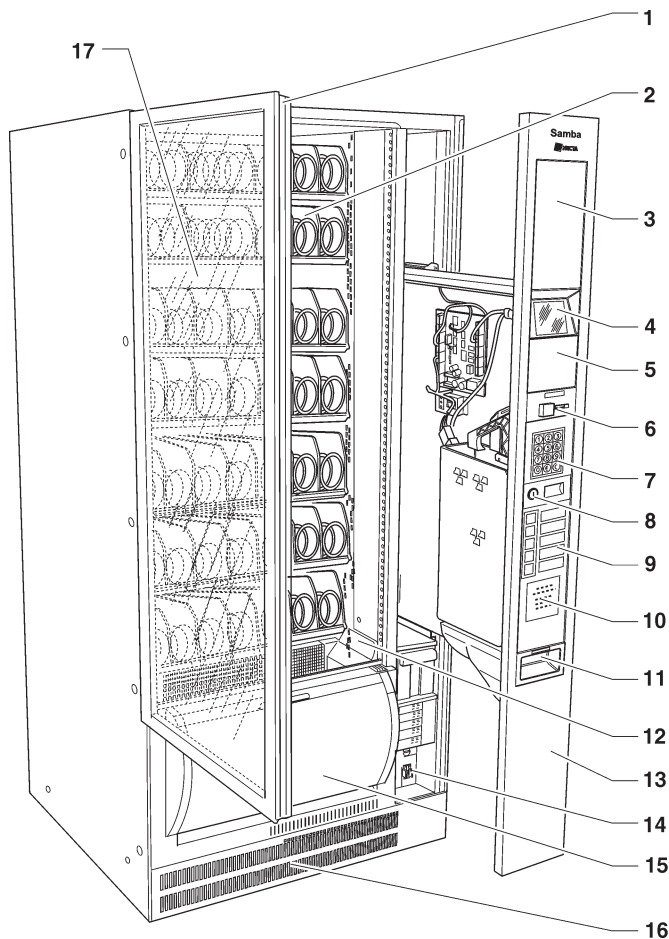


Fig. 4

- 1- Glassfront opening grip
- 2- Extractable trays
- 3- Advertising space
- 4- Graphical display
- 5- Space for the cashless payment module
- 6- Coin insert and return button
- 7- Selection keyboard
- 8- Lock and handle intended to open the slide-in compartment
- 9- Direct selection keyboard (optional)
- 10- Instructions for the user
- 11- Coin return door
- 12- Photocells (optional)
- 13- Slide-in compartment of payment systems
- 14- Main switch
- 15- Dispensing compartment
- 16- Feet cover
- 17- Glassfront

TYPES OF TRAYS

The machine may have different types of trays according to the configuration.

The following trays are made available:

STANDARD TRAYS

These trays can dispense most products.

According to the size of products you wish to dispense, spirals can be housed either in 152 mm. compartments (two spirals: right-hand and left-hand) for large-size products or into 75 mm. compartments (one right-hand spiral) for smaller products.

Standard trays can be configured to:

- dispense snacks and bottles

No special accessory is required to dispense snacks and bottles (see fig. 5).

You can distribute plastic bottles by loading them upside down to enable the cap to slide into the compartment channel.

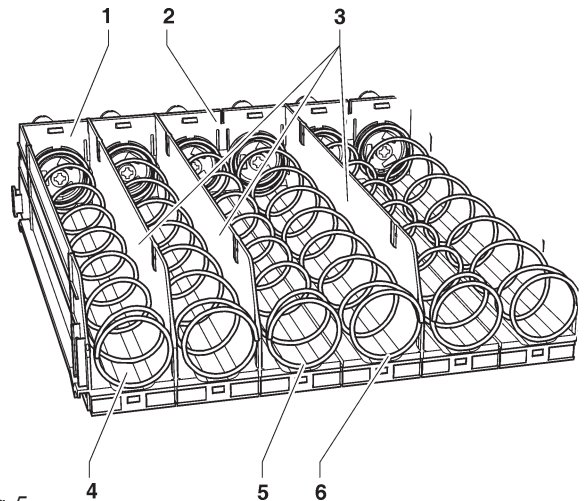


Fig. 5

- 1- Single compartment
- 2- Double compartment
- 3- Compartment walls
- 4- Compartment channel
- 5- Left-hand spiral
- 6- Right-hand spiral

- dispense thin products

These compartments can be recognised by the presence of a spacer (see fig. 6)

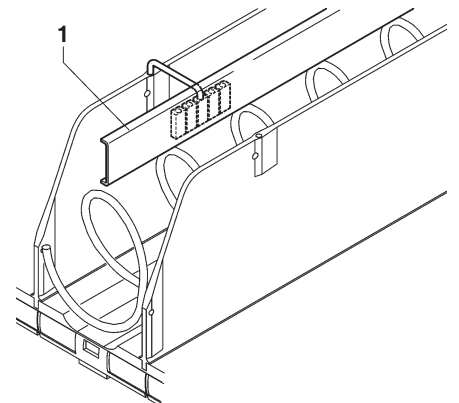


Fig. 6

- 1- Spacer

- dispense sticks of candies and alike.

These compartments can be recognised by the presence of a spiral rotating just by 180° and complete with a divider (see fig. 7). The divider is intended to double the compartment capacity.

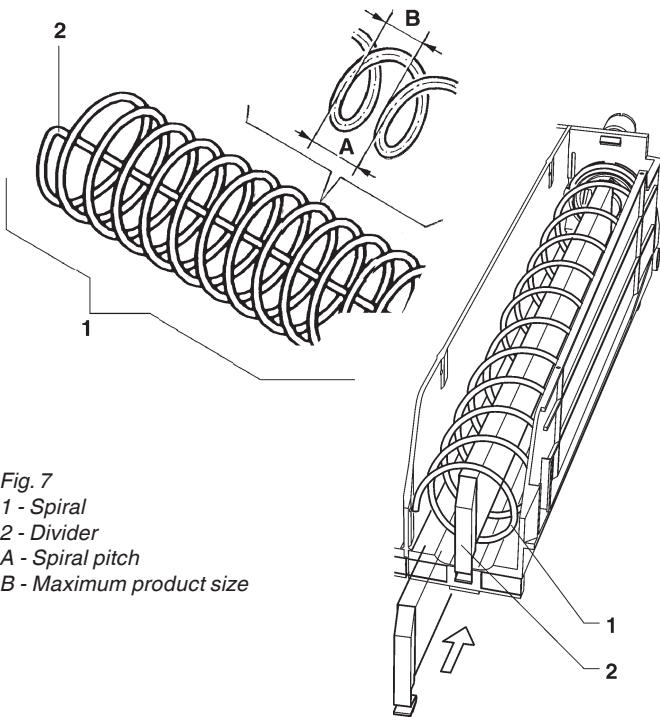


Fig. 7
1 - Spiral
2 - Divider
A - Spiral pitch
B - Maximum product size

- dispense cans and tetrapacks

These compartments can be recognised by the presence of a product raised support (see fig. 8). Use standard trays to dispense cans up to 69 mm in diameter and 0.2l tetrapacks.

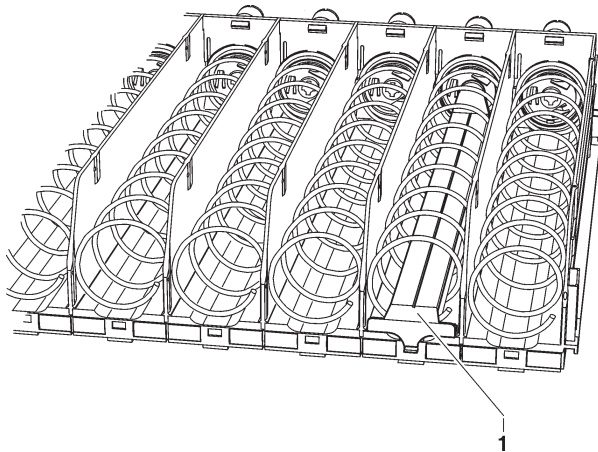


Fig. 8
1- Product raised support

TRAYS OF BOTTLES AND CANS

These trays can be recognised by the presence of retaining springs for each compartment. These trays can dispense 0.5 l and 0.33 l plastic bottles as well as 0.33 and 0.25 l "slim" cans vertically, thus improving the readability of the product label.

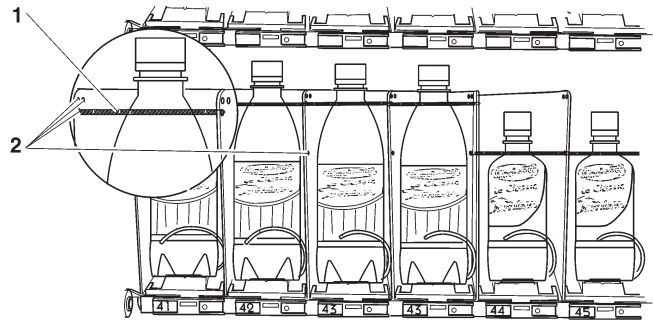


Fig. 9
1- Retaining spring
2- Holes intended to fasten the retaining spring

PRODUCT LOADING

Load the products from the outside to the inside and make sure that all spaces are filled. The product bottom must rest at the bottom of the compartment with the label facing the glassfront so that it can be recognised.

Avoid inserting any product stored at a temperature above 30°C.

Carefully follow the manufacturer's instructions on how to preserve and the pull date of every single product.

All products shall be easily insertable between the spirals. Avoid inserting any object that is too large.

STANDARD TRAYS

SNACKS

- Extract one tray at a time by lifting and pulling it past the retaining slide.

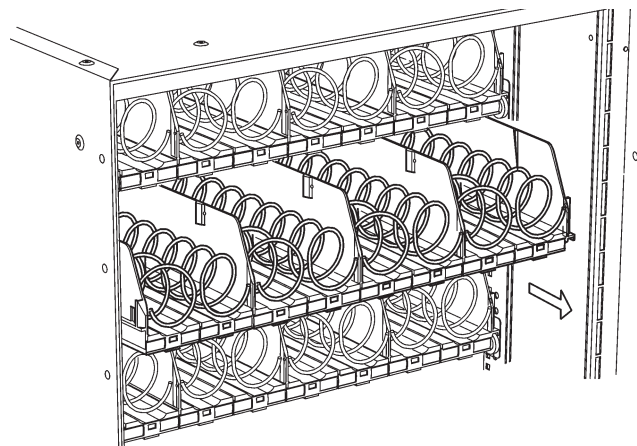


Fig. 10

The upper trays will tilt downwards to facilitate the loading cycle.

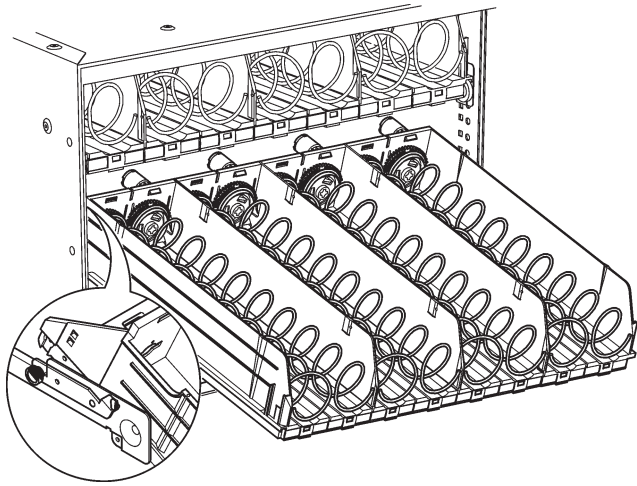


Fig. 11

- Push in the trays completely. Make sure that they go past the retaining slide.

The sealed edge of bags may be caught under the spiral, thus preventing the bag from falling down. Fold it forwards and upwards before inserting it into the spiral.

The most fragile products must be placed on the lower trays to avoid any damage when falling down.

Thin products can be dispensed only by using the special spacer (see fig. 12).

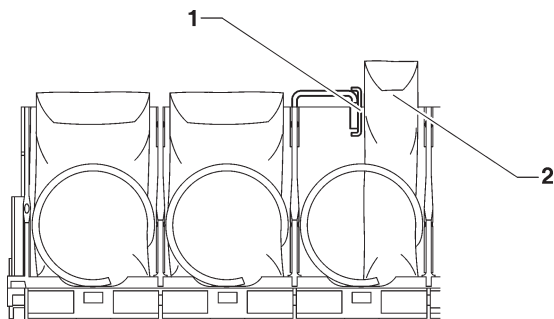


Fig. 12

1- Product spacer
2- "Narrow" products

BOTTLES, CANS AND TETRAPACKS

Load from the outside to the inside with the label facing the glassfront so that it can be recognised. These products might require the use of raised supports (refer to the paragraph configuration of spiral trays) Most bottles can be dispensed without any raised support, i.e. by loading the bottles up side down, so that the cap slides in the tray channel (see fig. 8).

Place these products on the lower trays to avoid any damage when falling down into the dispensing compartment.

Make sure that bottles and cans can be easily inserted between the spirals. Avoid inserting any object that is too large.

TRAYS OF BOTTLES AND CANS

Load bottles and cans vertically. The label shall be turned to the glassfront so that it can be recognised. You can load 0.5 l and 0.33 l plastic bottles as well as 0.33 and 0.25 l "slim" cans into these trays. Load bottles/cans so that the upper part is placed above the retaining spring.

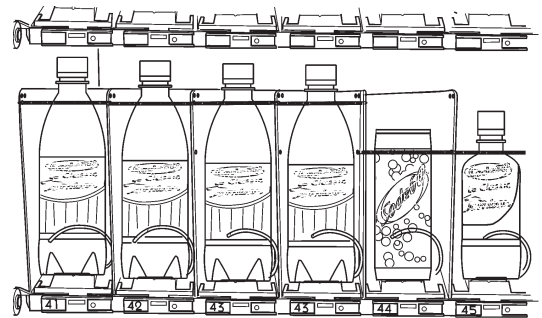


Fig. 13

POWER ON

Whenever you power on the machine, the management electronics will:

- check the number of trays you have actually connected
- check whether the dispensing compartment is locked (if available)

The display will show the following in sequence:

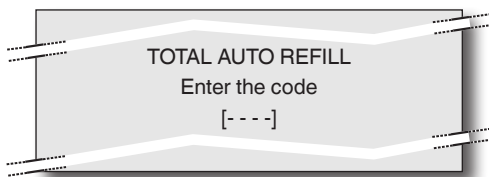
- software release
- presence of the photocells intended to detect the dispensing cycle
- number of trays you have actually connected
- presence of the device intended to prevent the dispensing compartment from opening
- refrigerated box temperature measured by the probe

If the machine had been powered off for a long time, wait for the steady-state temperature to be reached before inserting the products.

The manufacturer will disclaim all responsibility for any damage caused by the inobservance of the precautions mentioned above.

REFILL RESET (IF REQUIRED)

The “refill” code is a 4-digit code used to reset the counters managing any “ending product” signal.



Enter the “refill code” (1234 by default) to reset the counters and set the machine to the normal operation mode.

As an alternative, press key **C** to set the machine to the normal operation mode without resetting any counter.

After 1 minute, if no key is pressed, the machine will automatically switch to the normal operation mode without resetting any counter.

OPERATING TEMPERATURE

The machine can only work at a temperature between 5 and 34°C.

The refrigerated box temperature can be regulated between 5 and 20 °C (by default 8°C).

CLEANING THE VENTILATION GRIDS OF THE COOLING SYSTEM

Clean the ventilation grids of the cooling system at least every 30 days by using a vacuum-cleaner. To do it, act as follows:

- detach the vending machine from the supply mains and remove the feet cover
- extract the aspiration grid
- after having cleaned the grids, re-assemble everything by acting in the reverse order

Attention!!!

It is forbidden to use any water jet.

Never forget to power off the machine before servicing.

The qualified personnel shall check the machine intactness and its compliance with the rules in force at least once a year.

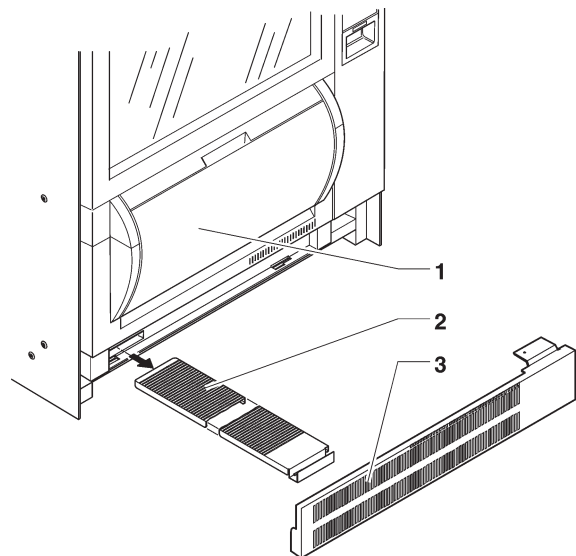


Fig. 14

- 1- Dispensing compartment
- 2- Aspiration grid
- 3- Feet cover

Chapter 2 Installation

Installation and any subsequent maintenance operation must be carried out by the personnel skilled and trained on the use of the machine as well as aware of the specific risks such a condition may involve.

MAIN SWITCH

A microswitch is assembled in the electric panel (see fig. 20). It is intended to power off the equipment as soon as you open the slide-in compartment of the payment systems.

Only the parts protected by covers and highlighted by the label “power off before removing the cover” remain live inside the equipment.

Before removing these covers, detach the power supply cable from the mains.

To power on the machine when the extractable compartment is open, just insert the key into the slot of the compartment switch,

UNPACKING THE VENDING MACHINE

After having unpacked the machine, make sure that the equipment is intact.

In case of doubt never use the equipment.

No packing material (plastic bags, foam polystyrene, nails, etc.) should be left within the reach of children since they are potential sources of danger.

Packing materials shall be disposed of in authorised dump sites and recyclable ones collected by specialised companies.

POSITIONING THE VENDING MACHINE

The machine is not suitable for installation outdoors. It must be installed in a dry room at a temperature ranging from 5°C to 34°C.

Relative humidity shall not exceed 65%.

It can not be installed in a room where water jets are used for cleaning (e.g. large kitchens, etc.).

The machine must be arranged near a wall, but so as to provide for regular ventilation.

Maximum inclination shall not exceed 2°. If necessary, level it by using the adjustable feet

If the vending machine has been laid down during transport, wait at least one hour before connecting it with the power mains.

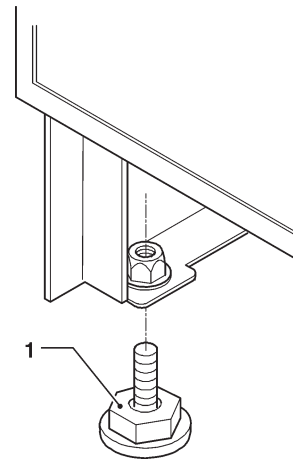


Fig. 15
1- Adjustable foot

PAYMENT SYSTEM ASSEMBLY

The machine is sold without any payment system. As a consequence, only the installer will be liable for any damage that may be caused to the machine or to things and persons by an incorrect installation of the payment system.

Mount the coin mechanism by paying attention to the following, according to the type of coin mechanism in use:

- Lift and turn the coin mechanism support
- Select the most suitable fastening holes;
- Loosen the fastening screw and adjust the coin insert slide according to the coin mechanism entrance;
- Loosen the fastening screws and adjust the lever intended to open the selector:

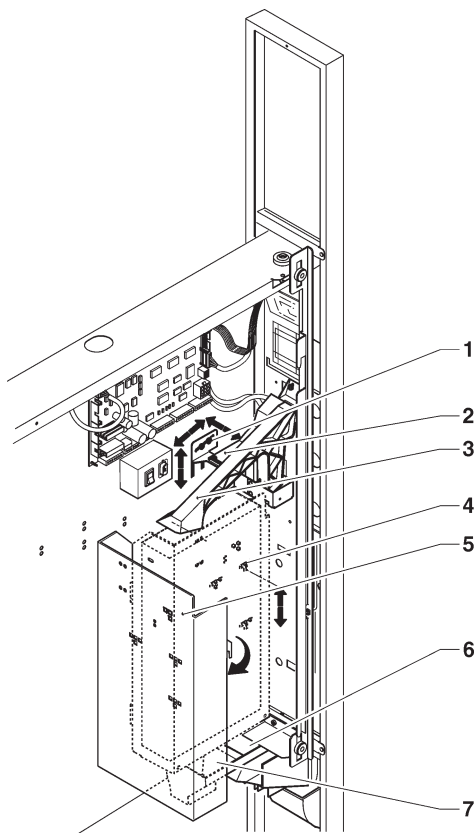


Fig 16

- 1- Coin slide fastening screw
- 2- Coin slide
- 3- Selector opening lever
- 4- Coin mechanism fastening holes
- 5- Openable coin mechanism support
- 6- Coin return slide
- 7- Coin insert slide

ELECTRIC CONNECTION

The machine is arranged for electrical operation at a 230 V~ single-phase voltage and it is protected by T6.3A fuses.

For connection make sure that the rating will comply with the mains data, in particular:

- the supply voltage value shall lie within the limits recommended for the connection points;
- the main switch shall be featured in such a way that it can support the maximum load required and to ensure omnipolar disconnection from the mains with an opening gap of the contacts of min. 3 mm.

The switch, the power socket and the corresponding plug shall be located in an accessible position.

The electrical safety of the machine is only ensured when the machine is correctly and efficiently grounded according to the safety standards in force.

It is necessary to check this fundamental safety requirement and, in case of doubt, to require professionally qualified personnel to check the installation carefully.

The supply cable is of the type with a fixed plug. If necessary, the connection cable (see fig. 16) shall be replaced by qualified personnel by using only cables of the HO5 RN - F or HO5 V V-F or H07 RN-F type, 3x1-1.5 mm² in cross-section.

It is forbidden to use adapters, multiple sockets and/or extensions.

THE MANUFACTURER WILL DISCLAIM ALL RESPONSIBILITY FOR ANY DAMAGE CAUSED BY THE NON-OBSERVANCE OF THE PRECAUTIONS MENTIONED ABOVE

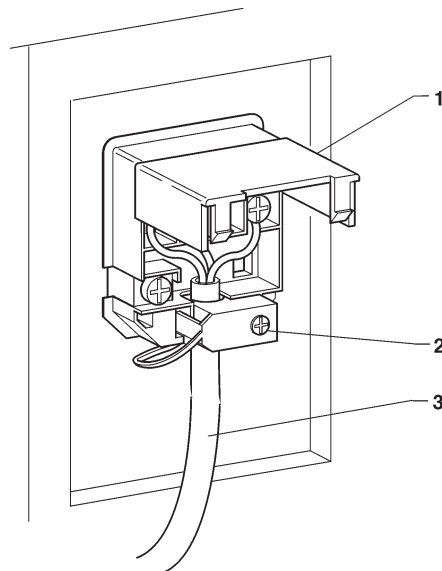


Fig. 17

- 1- Lift cover
- 2- Cable clamp
- 3- Mains cable

INTERNAL COMPONENTS

The evaporator unit on the shelf of the refrigerated box is composed by two fans, the evaporator, the air conveyor and the water retaining trap beneath the evaporator. The C.P.U. (central process unit) board inside the payment system compartment is intended to manage the various functions of the dispensing machine.

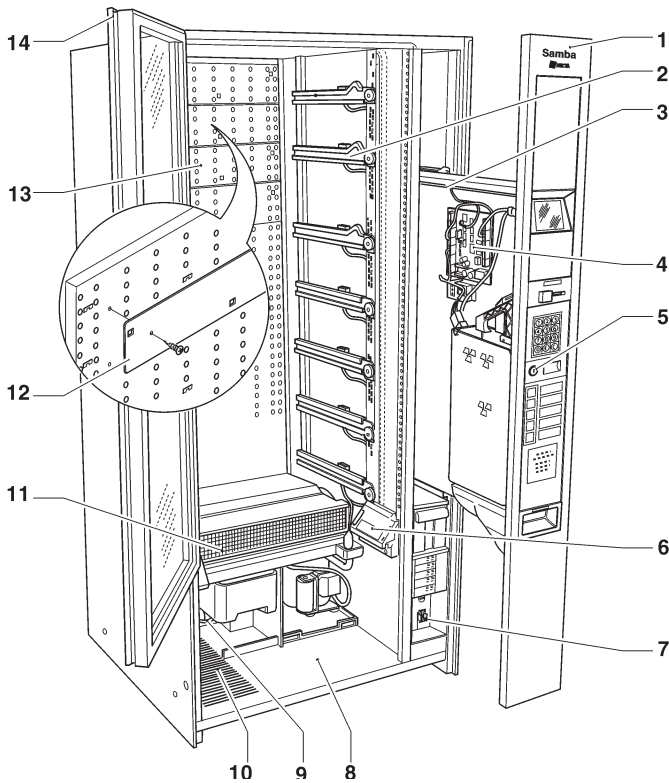


Fig. 18

- 1- Slide-in compartment
- 2- Tray guides
- 3- Glassfront lighting board
- 4- CPU board
- 5- Lock and grip of the slide-in compartment
- 6- Product passage photocells (optional)
- 7- Main switch
- 8- Housing of the product dispensing compartment
- 9- Cooling unit condenser
- 10- Ventilation grid
- 11- Cooling unit evaporator
- 12- Removable shutters of the cold air grid
- 13- Cold air distribution grids
- 14- Glassfront opening grip

COOLING UNIT

The cooling unit is arranged at the bottom of the cabinet and activated by the relay board accommodating the electric panel.

It changes the stratification level of the refrigerated box temperature according to the number of “opening” and “closing” shutters.

To reach a stratified temperature (5-8°C for lower trays and 8-20°C for upper trays), arrange the shutters as follows:

- “**opening**” for lower trays: the holes of the shutters match with the holes of the cold air distribution grid
- “**closing**” for upper trays: the holes of the shutters do not match with the holes of the cold air distribution grid

It changes the stratification level of the refrigerated box temperature according to the number of “opening” and “closing” shutters.

To achieve a uniform temperature in the refrigerated box, arrange all shutters in the “opening” position.

TEMPERATURE REGULATION

The refrigerated box temperature can be set between 5°C and 20°C (8°C by default) via software.

DEFROST

The cooling unit is automatically defrosted every 6 hours. The defrost time can be directly programmed by means of a software.

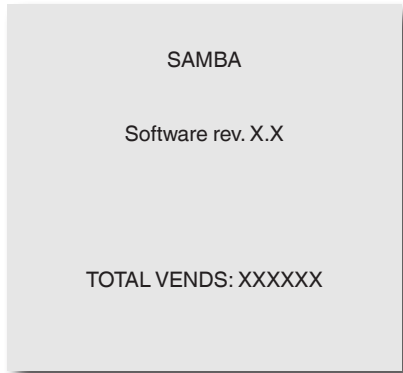
POWER ON

At the first power-on, the electronics will check as follows before setting the machine at work:

- check the number of trays you have actually connected with the machine

The display will show the following in sequence:

- software release



- presence of the photocells intended to detect the dispensing cycle
- number of trays you have actually connected
- presence of the device intended to prevent the dispensing compartment or the motor-driven compartment from opening (plus version only)
- refrigerated box temperature measured by the probe.

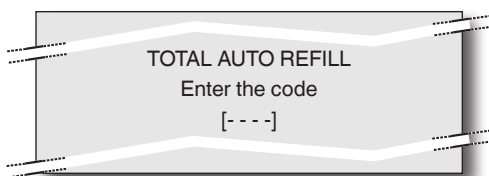
You can programme the machine to display the number of selections you have made for some seconds (total vends).

The machine is set to the normal operation mode after some seconds.

Wait for the steady-state temperature to be reached before inserting the products to be dispensed.

REFILL RESET (IF REQUIRED)

The “refill” code is a 4-digit code used to reset the counters managing any “ending product” signal.



Enter the “refill code” (1234 by default) to reset the counters and set the machine to the normal operation mode.

As an alternative, press key **[C]** to set the machine to the normal operation mode without resetting any counter.

After 1 minute, if no key is pressed, the machine will automatically switch to the normal operation mode without resetting any counter.

OPERATION

PRODUCT DISPENSING

To dispense a product included in a spiral compartment:

- If the models are complete with a “dispensing compartment lock” device, release it to open the compartment manually and to get the product after it has fallen down into the tray.
- The motor intended to rotate the spiral is activated.
- The spiral will push the product forwards and let it drop into the dispensing compartment.
The photocells (if any) will detect the product passage.

MANUAL DISPENSING COMPARTMENT RELEASE

Some models are complete with a device intended to lock the dispensing compartment that is electrically released after a dispensing cycle.

If you should open the compartment for any reason whatsoever in case of a power failure, act as follows:

- Remove the last tray;
- Remove the vandal-proof grid;
- Operate the compartment lock device manually.

programming notes

The electronics intended to control the machine will enable the operator to use many functions or not. The machine programme is intended to describe all available functions, including those that are not used due to the specific configuration of the model (**layout**). The following is supplied with the machine:

- Selection layout including the selections arranged for the specific model
- Flow chart of programming menus.

The main functions required to manage the machine operation as well as possible are briefly explained here below, not necessarily in the order they are displayed in the menus.

The software release can be updated by using proper systems (PC, Giga, Upkey etc.)

The messages intended to display the operation in progress are fixed whereas the action the user is required to perform is flashing on and off.

The machine can work in three different operation modes. The keyboard buttons may assume different functions, according to its operation state.

Possible states are listed here below:

NORMAL OPERATION MODE

- The machine is powered on (the door is closed) and all checks are performed.
- The selection is dispensed and messages are displayed for the user.

FILLER MENU

- Statistical findings and execution of simple checks on the operation and on dispensing cycles.

TECHNICIAN MENU

- Test functions, the setups and the performances of the machine are programmed on two levels:

REDUCED

To manage the parameters of selections

COMPLETE

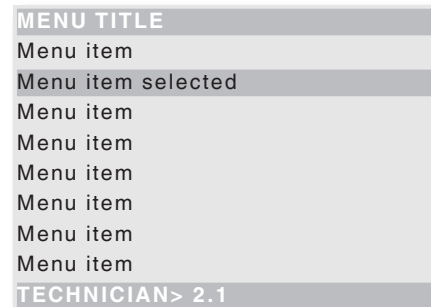
The operations you can perform can modify operation cycles. Therefore, they must be carried out by people having a specific knowledge of the machine in terms of electrical safety and sanitary rules.

NAVIGATION MODE

The interaction between the system and the operator occurs through the following components:

DISPLAY

10-line graphical display intended to display the user messages or the menu functions.



- If required, the menu title is highlighted on the first line.



followed by all available options.

- The line, on which the cursor is active, is highlighted



- The last line specifies the menu, in which we are acting (Filler or Technician), followed by the numeric position of the cursor (e.g. 2.1)



NUMERIC KEYBOARD

The numeric keyboard will assume the following functions during the programming cycle:

NUMERIC KEYS FROM **1** TO **7**

To select a menu item directly by typing the corresponding number shown by the flowchart supplied with the machine.

NEXT MENU KEY **0**:

↓ to move to the next menu option.

In the case of command management, it varies the logic status of a data item (**On/Off**), where required, or it writes the value 0 in case of entry of a number.

PREVIOUS MENU KEY **8**:

↑ to move to the previous menu option.

In the case of command management, it varies the logic status of a data item (**On/Off**), where required, or it writes the value 8 in case of entry of a number.

ENTER KEY **E**:

↵ to move from a menu to a sub-menu or to confirm the execution of a command.

EXIT KEY **C**:

← to go back from a sub-menu to a higher level menu or not to execute the active command for the time being.

KEY TO QUIT THE GRAPHICAL DISPLAY CONFIGURATION **5**:

⬅ to quit the configuration menus of the graphical display and go back to the programming menu of the machine.

The key is enabled only in the models equipped with a graphical display for the reproduction of promotional videos.

1	2	3
4	5 ⬅	6
7	8 ↑	9
0 ↓	E ↵	C ←

Fig. 19

DIRECT SELECTION KEYBOARD

A 5-button keyboard can be arranged on the machine (either as a standard or as an option) and associated with a group of selections.

After having enabled the direct selection function, you can associate an ensemble of selections with every single button by specifying the start and end numbers of the series.

Selections can also affect different trays provided that they are in sequence.

The products are alternatively dispensed by every single spiral grouped in a direct selection.

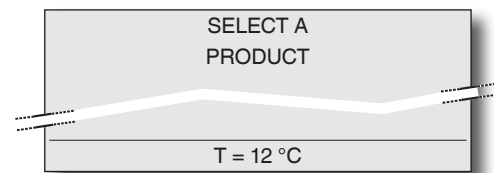
All the selections belonging to the same group shall have the same price.

NORMAL OPERATION MODE

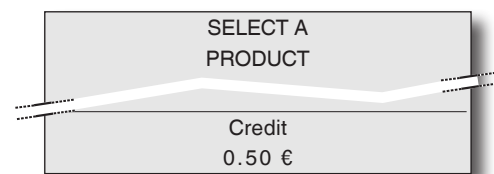
The machine is set to the normal operation mode when the machine is supplied and the slide-in compartment of payment systems is closed.

The user messages can be bilingual according to the machine settings.

The glassfront is lit up and the display shows the refrigerated box temperature and the message requiring the user to select a product.

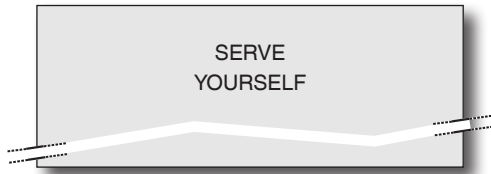


If the machine is complete with a payment module and you insert some coins or a payment system, the credit still available will appear on the display.

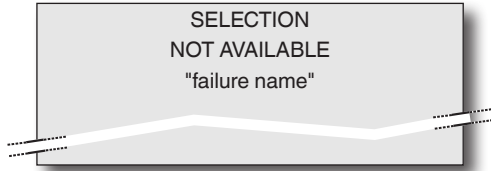


To dispense, select the number corresponding to the product you wish by using the numeric keyboard.

At the end of the dispensing cycle, the message requiring the user to take the product will appear on the display for some seconds and the machine will get ready for another delivery.



If the control system should find out a failure, an error message will appear and specify the type of problem.



FILLER MENU

Press the programming button on the slide-in shutter of the payment systems once to set the machine to the "filler menu" mode.

The first item of the "filler" menu appears on the display with a series of available operations.

The last line shows the menu and number showing the level you are in.

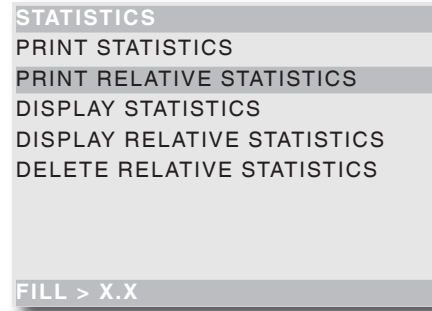
Press the Enter key **↵** to access the menu.

Press the Exit key **⬅** to go back to the previous menu..

Press the keys **⬆** and **⬇** to scroll the menu items:

STATISTICS

All the machine operation data are stored in total and relative counters that can be reset without losing total data.



PRINT

This function is intended to print the data that have been stored for the machine operation.

Connect an RS232 serial printer having 9600 baud rate, 8 data bits, no parity, 1 stop bit with the serial port on the button board in order to print all statistics, i.e:

TOTAL

- 1 - counter by selection;
- 2 - counter for bands,
- 3 - discount counter;
- 4 - failure counter;
- 5 - coin mechanism data.

RELATIVE

- 1 - counter by selection;
- 2 - counter for bands,
- 3 - discount counter;
- 4 - failure counter;
- 5 - coin mechanism data.

The machine code, the date and the software release will be also printed.

To print, act as follows:

- From the print function press key **↵** to display "Do you confirm?";
- Connect the printer;
- Press the Enter key **↵** to start printing

DISPLAY

The function is intended to sequence-display the same data you can obtain by printing statistics. Press the Enter key **↵** to sequence-display the following data:

total counters

- 1 - counter by selection;
- 2 - counter for bands;
- 3 - discount counter;
- 4 - failure counter;
- 5 - coin mechanism data.

relative counter

- 1 - counter by selection;
- 2 - counter for bands;
- 3 - discount counter;
- 4 - failure counter;
- 5 - coin mechanism data

DELETE

Statistics can be reset for relative counters either globally (all types of data) or selectively for:

- selections
- bands
- failures
- coin mechanism data

Press the Enter key **↵** to display the blinking message: "Do you confirm?"

Press the Enter key **↵** to reset the statistics. The display will show the "Running" message during the operation to reset the statistics.

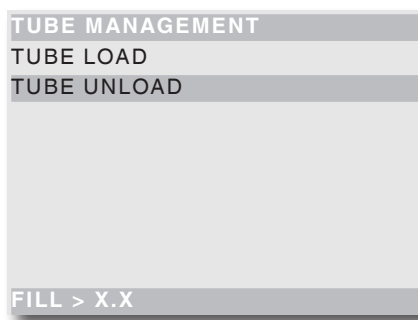
SELECTION PRICES

The machine can manage up to 4 different prices per selection, which can be active according to the time band you have set (standard or promotional) and/or the payment system in use.

Use this function to vary the sales price for every single selection by selecting among the price ranges available.

MANAGEMENT OF CHANGE TUBES

From this menu you can manually load or empty the change tubes of the coin mechanism.



LOAD THE TUBES

If you confirm the function, "Credit : —" will appear on the display. This is the value of the money made available in the tubes for the change. If you insert a coin into the selector, the display will increase the value of the money made available in the tubes for the change.

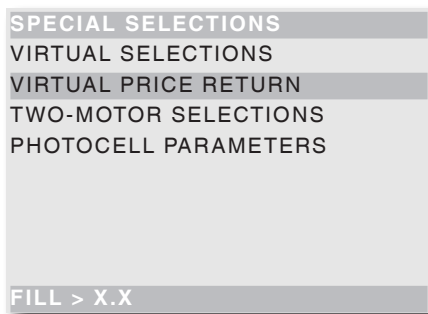
UNLOAD THE TUBES

If you confirm the function, you can establish the tube on which you wish to act.

Whenever you press the Enter key **↵**, a coin is ejected by the active tube.

SPECIAL SELECTIONS

From this group of functions you can set up the following parameters:



VIRTUAL SELECTIONS

This function is used to define a pair of selections that can be sold at a price different from the sum of the two selections, using one single selection number. 10 virtual selections can be programmed (70 to 79).

VIRTUAL PRICE RETURN

Use this function if you do not wish to cash the price of the second selection if the second dispensing cycle of a virtual selection should fail (only if MDB payment systems or validators are in use). For the other payment systems, you can establish whether to return the whole amount or not.

TWO-MOTOR SELECTIONS

To dispense long products, you can mount the dividers in order to use two motors for one single selection. Use this function to combine the operation of two motors by specifying the selection number and the second motor.

The first motor number will be the selection number whereas the selection number of the associated motor will remain disabled.

Important!

After a failure to the motors of these selections, follow the procedure intended to configure the “Spirals/Selections” menu of the machine.

DETECTION OF THE DISPENSING CYCLE

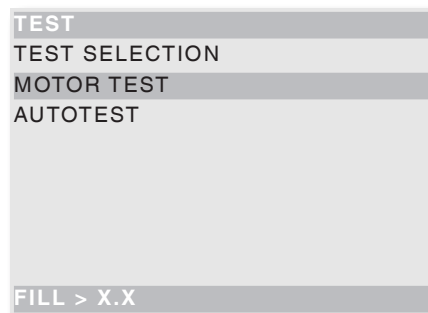
The machine can be fitted (as a standard or as an option according to the models) with a device intended to detect the passage of dispensed products by means of photocells.

If no dispensing cycle is detected for a product, this device will enable you to:

- set a rotation time for the spiral beyond the limit switch, to overcome any jam;
- return the paid amount or not;
- lock any further selection on the spiral in question.

TEST

From this menu you can carry out a series of tests to check the correct operation of the various machine devices.



TEST SELECTION

Use this function to simulate the normal dispensing mode of products without inserting the amount to check the operation of the spiral rotation by pressing the selection buttons.

MOTOR TEST

It is intended to operate all motors in a sequence and to display the selection number in question.

AUTOTEST

A function is implemented in the software to check the correct operation of some devices half-automatically. Some tests occur automatically whereas others require the manual operation of the component under test. Press button **←** to perform the next test.

The devices under test are listed here below:

- **Keyboard:** press the key required by the display; if it can operate properly, you will be required to press the next key.
- **Temperature:** to display the temperature value measured by the probe.
In case of power failure, -11.0 will appear. In case of a short-circuit, 41.0 will appear.
- **Buzzer:** a series of sounds is produced.
- **Compressor:** press key **←** and **←** to activate and deactivate the compressor.
- **Selections:** to activate all selections in a sequence.
- **Coin mechanisms:** to make sure that the communication with the coin mechanism is properly working and to check which validator lines are set up as active.

“Photocells”

If the device intended to detect the product passage is available, the light beam readout and interruption are checked.

“Compartment Lock”

If the device intended to prevent the dispensing compartment from opening is available, press key **←** and **←** to lock and unlock the opening of the compartment.

“Direct keyboard”

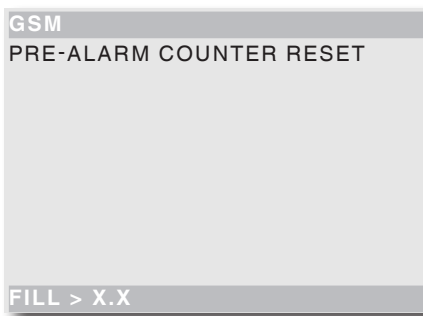
The 5 keys are checked in sequence if available on the machine.

Press the key required by the display. If it is working properly, you will be required to press the next key.

GSM

This function is active only if the vending machine is properly set up and connected with a GSM data transmission device.

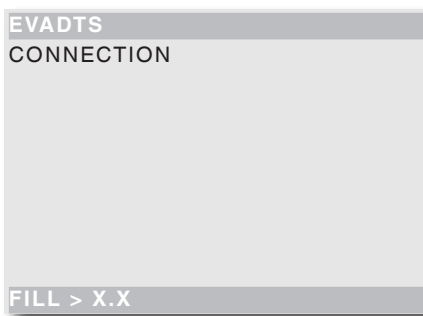
The control software can send an “ending product” signal via GSM modem when a well-defined (programmable) number of pieces of a given product is lacking. Use the reset function to reset the counters intended to manage prealarms.



If the function is enabled from the programming menu, counters may be reset directly at the time of the power on.

EVADTS TRANSFER

If you activate the function “connection” from this menu, the machine will be waiting for connection with a device for the purpose of acquiring EVADTS statistics.



TECHNICIAN MENU

The main software functions required to manage the machine operation as well as possible are briefly explained here below. They are grouped by logic of utilisation and not necessarily in the order they are displayed in the menus.

The software release can be updated by using proper systems (PC, Flash, Upkey etc.).

For more information and details refer to the dose table supplied with the machine. Please make reference to the machine software release.

Press key **←** from the “Filler” mode to set the machine to the “Technician menu” mode.

Notes:

Press key **←** in the technician menu to restore the filler mode for the machine.

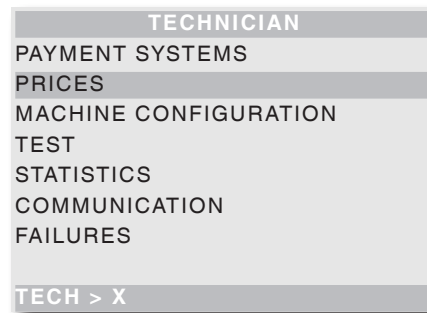
The display shows the first “Technician” menu item with the series of operations made available.

The last line shows the menu and the number enabling the operator to find out the level you are in.

Press the Enter key **↵** to access the menu.

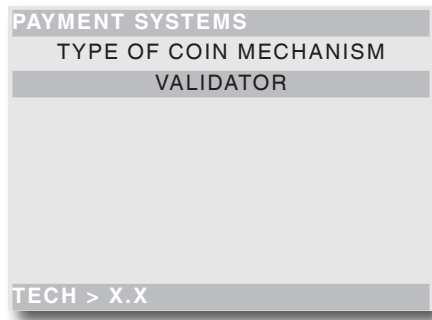
Press the Exit key **←** to go back to the previous menu.

Press key **↑** and **↓** to scroll the menu items.



PAYMENT SYSTEMS

You can decide which protocols to enable for the payment systems available and manage the relative functions.



The communication protocols for the payment systems available are listed here below:

- Validator
- Executive
- BDV
- MDB
- None (free vending)

Use key **↑** and **↓** to scroll the protocols available. Some parameters shared by several payment systems keep the set point even if you change the type of system. If necessary, they can be modified by the menus of the various payment systems.

VALIDATOR

IMMEDIATE CHANGE

The amount relative to a selection is generally cashed after the machine has sent the “Successful selection” signal.

If you enable this function, which is disabled by default, the cash signal is sent at the start of the dispensing cycle.

The setup of this parameter is compulsory.

LINE/VALUE ASSOCIATION

When the display is positioned on the “LINE-VALUE ASSOC.” function (line programming) of the “programming” menu, you can vary the value of the 6 coin lines of the validator from A to F.

DECIMAL POINT

Press the Enter key **↵** to display the position of the decimal point, i.e.

- 0 decimal point disabled
- 1 XXX.X (one decimal digit after the point)
- 2 XX.XX (two decimal digits after the point)
- 3 X.XXX (three decimal digits after the point)

If you press the Enter key **↵**, these values will flash on and off and they can be modified.

OVERPAY

You can decide whether to cash or leave the credit exceeding the selection amount at the user’s disposal.

EXECUTIVE

VERSION

You have to choose among the following payment systems for the Executive system:

- Standard
- Price holding
- UPKEY (Price holding price display)
- SIDA

IMMEDIATE CHANGE

The amount relative to a selection is generally cashed after the machine has sent the “Successful selection” signal.

If you enable this function, which is disabled by default, the cash signal is sent at the start of the dispensing cycle.

BDV

The BDV protocol menus will enable the user to define the following functions.

IMMEDIATE CHANGE

The amount relative to a selection is generally cashed after the machine has sent the "Successful selection" signal.

If you enable this function, which is disabled by default, the cash signal is sent at the start of the dispensing cycle.

The setup of this parameter is compulsory.

TYPE OF SALE

Used to set the operation mode by multiple or single dispensing. In case of multiple dispensing, the change is not automatically given at the end of a successful delivery, but the credit will remain available for further dispensing. If you press the coin return button, the remaining credit will be returned if its value is lower than the maximum change value.

CHANGE REFUSED

Used to enable/disable the credit return (escrow) if no dispensing has been performed.

If enabled, this function will provide for the return of the coins even if the first dispensing cycle has not occurred. If a delivery has failed for any reason whatsoever, the change will be paid upon request.

MAXIMUM CREDIT

Function used to define the maximum accepted credit for inserted coins.

MAXIMUM CHANGE

You can set a limit on the total amount of the change the coin mechanism will pay as soon as you press the change button or after one single dispensing. The credit exceeding the amount you have programmed by this function will be cashed.

COINS ACCEPTED

Used to define which coins shall be accepted among those recognised by the validator.

For the coin/value correspondence check the label showing the position of the coins on the coin mechanism.

COINS NOT ACCEPTED

Used to program the refusal of a coin in case of "exact amount".

For the coin/value correspondence check the label showing the position of the coins on the coin mechanism.

"EXACT AMOUNT" VALUE

Used to define the combination of empty tubes intended to set the coin mechanism to the "exact amount" mode. All possible combinations of empty tubes are listed here below.

For reasons of simplicity, the combination is described with reference to tubes A, B and C, where tube A will receive the lowest-value coins and tube C the highest-value coins.

0	=	A or (B and C)
1	=	A and B and C
2	=	A and B only
3	=	A and (B or C)
4	=	A only
5	=	A or B only (default)
6	=	A or B or C
7	=	A or B only
8	=	A or C only
9	=	B and C only
10	=	B only
11	=	B or C only
12	=	C only

DISPENSING BUTTONS

Function used to enable or disable the buttons arranged on the coin mechanism in order to discharge the coins in the change tubes.

C.P.C. PERIPHERAL UNIT

It is intended to inform the coin mechanism whether some peripheral units have been installed or removed from the serial connection (peripheral units of the C.P.C type - the default control unit is always enabled).

MINIMUM TUBE LEVEL

Used to warn the user in advance to "Insert exact amount" by adding a number of coins between 0 and 15 to the number of coins that has been programmed to establish the status of full change tubes.

VMC FREE SALE

Most of the payment systems complete with a BDV protocol is intended to manage the free sale function. However, there are some payment systems not having this function.

In this case, it is necessary to enable the VMC (vending machine control, disabled by default) free sale and to set the price of selections to zero if some selections are dispensed on a free basis.

MDB

The MDB protocol menus will enable the user to define the following functions.

IMMEDIATE CHANGE

The amount relative to a selection is generally cashed after the machine has sent the “Successful selection” signal.

If you enable this function, which is disabled by default, the cash signal is sent at the start of the dispensing cycle.

The setup of this parameter is compulsory.

DECIMAL POINT

Press the Enter key **↵** to display the position of the decimal point, i.e.

- 0 decimal point disabled
- 1 XXX.X (one decimal digit after the point)
- 2 XX.XX (two decimal digits after the point)
- 3 X.XXX (three decimal digits after the point)

If you press the Enter key **↵**, these values will flash on and off and they can be modified.

The setup of this parameter is compulsory.

TYPE OF DISPENSING CYCLE

Used to set the operation mode by multiple or single dispensing. In case of multiple dispensing, the change is not automatically given at the end of a successful delivery, but the credit will remain available for further dispensing. If you press the coin return button (if the function is enabled), the remaining credit will be returned up to the maximum change value.

OBLIGATION TO BUY

To enable/disable the operation of the coin return button before dispensing a product.

- ON: the change is returned after having selected a product
- OFF: the change is returned just after having pressed the coin return key (the machine is acting as a coin changer)

MAXIMUM CREDIT

Function used to define the maximum accepted credit for inserted coins.

MAXIMUM CHANGE

You can set a limit on the total amount of the change the coin mechanism will pay as soon as you press the change button or after one single dispensing.

The credit exceeding the amount you have programmed by this function will be cashed.

COINS ACCEPTED

Used to define which coins shall be accepted among those recognised by the validator when the change tubes are full.

For the coin/value correspondence check the coin mechanism configuration.

COINS RETURNED

Used to define which coins shall be used to give the change among those available in the tubes. This parameter is active only with the coin mechanisms not intended to manage the choice of the tube in use automatically (Auto changer payout).

For the coin/value correspondence check the coin mechanism configuration.

BANKNOTES ACCEPTED

Used to define which banknotes shall be accepted among those recognised by the reader.

For the banknote/value correspondence check the reader configuration.

BELOW-THE-LEVEL ACCEPTANCE

Used to define which coins shall be accepted among those recognised by the validator when the machine is in the “exact amount” mode.

FOR THE COIN/VALUE CORRESPONDENCE CHECK THE COIN MECHANISM CONFIGURATION

BELOW-THE-LEVEL BANKNOTE ACCEPTANCE

Used to define which banknotes shall be accepted among those recognised by the reader when the machine is in the “exact amount” mode.

For the banknote/value correspondence check the reader configuration.

CASHLESS PRIVATE

To protect the users’ privacy, this function is intended to display the string “-----” in the place of the credit on the cashless system.

OVERPAY

You can decide whether to cash or leave the credit exceeding the selection amount at the user’s disposal.

CASH-SALE

Used to give evidence that cash transactions have occurred by means of a cashless system.

The values available are listed here below:

- **0** standard operation: cash transactions are recorded as such
- **1** forced sending to cashless 1: cash transactions are recorded as transactions performed by the first cashless system
- **2** forced sending to cashless 2: cash transactions are recorded as transactions performed by the second cashless system

PARALLEL MACHINE

Function used to enable the presence of a validator or parallel bill reader to recharge the keys.

EXACT CHANGE EQUATION

To choose among 15 different algorithms to enable the machine to give the change at the end of the selection. Every single algorithm checks a series of requirements, such as the amount of coins in the tubes or the (empty or full) state of the tubes the coin mechanism will use to give the change.

If one of these requirements is not fulfilled, the machine can supply no change. In this case, the display will show the "No change" message.

MAXIMUM CASHLESS CREDIT

Function used to set up the maximum credit a cashless key/card may have to be accepted by the system. If the key has got a higher value, it will be rejected.

The setup value shall always be higher than or equal to the value set for the "Maximum cash revalue" function. If modified and lower, it will be automatically set to the same value as the "Maximum cash revalue".

MAXIMUM CASHLESS RECHARGE

Used to set up the maximum credit you can charge on a key or card system.

MINIMUM TUBE LEVEL

Used to set a number of coins between 0 and 15 in order to establish the status of full change tubes and to warn the user to "insert the exact amount".

BILL READER FUNCTION (BILL REVALUE)

Used to enable the bill reader only to recharge the credit on the cashless system (key or card)

INDEFINITE CREDIT ACCEPTANCE

This function is intended to accept cashless payment systems (key or card) or not if the cashless system credit is not defined.

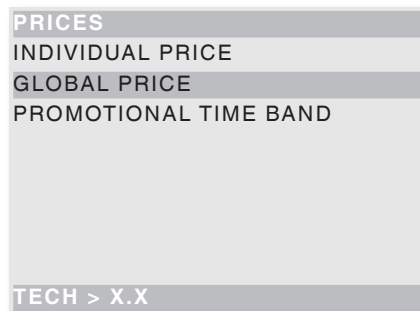
GROUPS OF USERS

The function is intended to associate a price list (list 1, list 2 and list 3) to the groups of users (from 1 to 5). All groups of users are associated to list 1 by default.

PRICES

From this menu you can set up prices individually (for every single selection) or globally (the same price for all selections) and define the ranges of the promotional time band.

The machine can manage up to 4 different prices for every single selection, which may be active according to the time band you have set up (either standard or promotional) and/or the payment system in use.



Prices are grouped into 4 lists and they can be programmed (from 0 to 65,535) for each one of the 4 lists either globally (the same price for all selections) and for every single selection.

The price of one single selection can be directly varied from the keyboard too.

If you have to sell most products at the same price, it will be advisable to programme the price globally and to change the price of the selections having a different sales price.

BDV, EXECUTIVE, VALIDATORS

These systems enable you to manage not only the standard price list, but also a promotional price list if the time band is enabled by the corresponding function. Selections will be dispensed at the price of the promotional list during the time intervals you have programmed.

MDB

These systems are intended to establish whether to use the 4 price lists at the same time or to use two alternative ranges according to the time band you have set up.

If you do not use the time band, you can manage not only the standard price list, but also three further price lists according to the type of cashless support in use (key 1-3).

If you use a time band, selections will be dispensed at a price other than the standard one for the cashless system. During the time intervals you may have programmed, selections will be dispensed at two different promotional prices for the standard list and the cashless system.

PROMOTIONAL TIME BAND

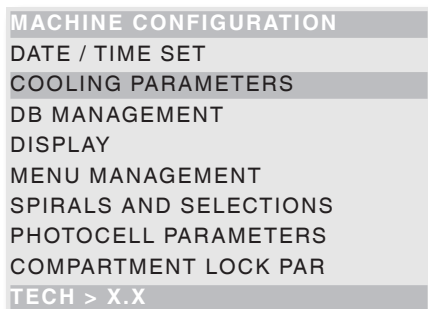
4 time ranges programmable for the sale at different prices.

Ranges can be set up by hour (from 00 to 23) and by minute (from 00 to 59).

The time of reference is supplied by an internal clock.

MACHINE CONFIGURATION

This group of functions is intended to check all parameters relative to the operation of the machine.



DATE AND TIME SET

Function used to set up the current date and time. The value is used to manage the time band and statistics..

COOLING PARAMETERS

The operation of the cooling system can be programmed for the following functions.

COLD UNIT ENABLE

You can disable the operation of the cooling unit. The change will apply as soon as you restart the machine. After having enabled the cooling unit, modify the following parameters: temperature, defrost and temperature record enable.

TEMPERATURE

You can directly set the refrigerated box temperature in °C (from 5 to 20°C, 8°C by default) during the operation. The differential deviation from the temperature set for the start/stop of the cooling unit is 2°C

DEFROST

The function allows for a 20-minute defrost cycle (the cooling unit is powered off, regardless of the temperature).

The time interval between one cycle and the other one can be programmed from 0 to 99 hours (every 6 hours by default); the time interval will be determined according to the relative humidity and the number of door openings.

If the time is set to 0, the function is disabled.

DB MANAGEMENT

This group of functions is intended to manage the basic data of the machine operation.

INITIALISATION

This function shall be used in case of a memory data error or if the software is replaced.

All statistic data are reset except for the general electronic counter.

When the display is set to the "Initialisation" function, you can

- initialise the machine by restoring all default data.
- initialise the machine by using the data saved during previous customisation;
- save the data modified on the machine in external memories

Press the Enter key **↵** to display the request for confirmation "Do you confirm?". If you press the Enter key **↵** once again, you will be required to enter some parameters, i.e.

- **Country**: understood as the type of configuration
- **Language**: for the messages that will appear on the display

DISPLAY

This group of functions controls all display parameters.

LANGUAGE

Use this function to select the language you wish to use to display the messages among those made available by the software.

SECOND LANGUAGE

To select a second language to display the messages in the “normal operation mode”.

USER DISPLAY

Use this function to enable and select the type of information you wish to display during the normal operation mode.

The information you can display is supplied here below:

- Refrigerated box temperature
- Time-table
- Temperature in the refrigerated box of the “slave” machine

SETTING UP THE PROMOTIONAL MESSAGE

The promotional message may include max. 4 lines (every line having 20 characters) and it can be composed by using the keys **↑** and **↓** to scroll all available characters.

If you press the Enter key **↵**, the first character you can modify will flash on and off.

Press the key **←** to store the message.

PROMOTIONAL IMAGE

To enable/disable the promotional image on the display in the normal operation mode:

- ON: the message “Select a product” and the promotional image are alternated every 3 seconds in the normal operation mode
- OFF: only the message “Select a product” is displayed in the normal operation mode

LCD CONTRAST REGULATION

Use this function to regulate the display contrast from min. 5% to max. 99% (default).

SCREEN SAVER TIME

Use this function to set the activation of the screen saver after a shutdown time that can be programmed for the vending machine (in minutes from 0 to 200).

The default setup is 10 min.

If the value is set to 0, the screen saver is not active.

CURRENCY SYMBOL

Use the function to enable the display of the currency symbol you have set up (€, \$ or £).

MENU MANAGEMENT

PASSWORD

It is a 5-digit numeric code you are required to enter to access menu functions.

The value of this code is set to 00000 by default.

PASSWORD ENABLE

To enable the request for password function in order to display all functions of the Technician Menu as soon as you access the programming mode. The request for password is disabled by default.

SPIRALS AND SELECTIONS

From this group you can set up the parameters of selections.

MACHINE CONFIGURATION

To recognise and store the number and positions of the trays and selection motors.

VIRTUAL SELECTIONS

To define a pair of selections that can be sold at a price different from the sum of the two selections.

5 virtual selections can be programmed (80 to 84).

VIRTUAL PRICE RETURN

Use this function if you do not wish to cash the price of the second selection if the second dispensing cycle of a virtual selection should fail (only if MDB payment systems or validators are in use). For the other payment systems, you can establish whether to return the whole amount or not.

TWO-MOTOR SELECTION

To dispense long products, you can use two motors for one single selection.

Use this function to combine the operation of two motors by specifying the selection number and the second motor.

The first motor number will be the selection number whereas the selection number of the associated motor will remain disabled.

Important!

After a failure to the motors of these selections, follow the procedure intended to configure the “Spirals/Selections” menu of the machine

ROTATION SELECTIONS

Use this function to create 6 groups of several spirals that are activated by rotation by means of the same selection number to increase the autonomy of the same product and to make dispensing uniform.

The spirals grouped in a single selection must be adjacent.

All the selections belonging to the same group must have the same price

To manage the safety devices on the selections properly, it is recommended to mount the device intended to detect the dispensing cycle on the machine.

PRODUCT CODE

Use this function to assign every single spiral a 4-digit identification code to process statistics.

DIRECT SELECTIONS

A 5-button keyboard can be arranged on the machine (either as a standard or as an option) and associated with a group of selections.

After having enabled the direct selection function, you can specify the selection number for association with every single direct selection button.

MAXIMUM NUMBER OF PRODUCTS

The function is intended to set up the maximum number of products belonging to a selection.

Press key **↑** and **↓** to scroll selections and press key **↵** to confirm the selection where to act.

Use the numeric keys to enter the value.

Press key **←** to store the setup.

MINIMUM PRODUCT LEVEL

The function is intended to set up the minimum number of products belonging to a selection. After having reached it, the operator is prompted to reload the selection.

Press key **↑** and **↓** to scroll selections and press key **↵** to confirm the selection where to act.

Use the numeric keys to enter the value.

Press key **←** to store the setup

PHOTOCELL PARAMETERS

The machine can be fitted (as a standard or as an option according to the models) with a device intended to detect the passage of dispensed products by means of photocells.

If this device is mounted, you can check the following:

- Error before the dispensing cycle; when the beam of the photocells is not read at the start of the dispensing cycle

- Error after the dispensing cycle; when the motor fails during the dispensing cycle

- No product error; when the device fails to detect the product passage during the dispensing cycle

In these cases, you can programme the machine to:

- set an "extra" rotation time for every single spiral to release the product;

- return the paid amount or not;

- lock any further selection on the spiral in question.

DISPENSING COMPARTMENT LOCK PARAMETERS

The dispensing compartment can be fitted (as a standard or as an option) with a compartment lock device.

This function is used for deciding whether:

- to leave the compartment always free

- to release it upon dispensing

The door is only released for a well-defined time interval (programmable from 1 to 10 minutes) in the "release upon dispensing" mode as soon as you request for a product.

However, you can enable the function intended to set the machine out of service for a well-defined time interval programmable between 1 and 10 minutes, if the door stays open.

The machine is set out of service if the lock device is always closed during a dispensing cycle.

ENERGY SAVING

Use this function to power off the heating of the boilers and/or the lights of the external illumination in order to save electric energy whenever the machine is not used. 2 power off time bands can be programmed on a weekly basis. The days of the week are identified by a progressive number (1=Monday, 2=Tuesday etc.).

The same range can not include the days of different weeks.

If you should set up overlapping time bands by mistake, the machine will remain on for the shorter period.

If you wish to set up the Service interruption bands to power on the machine from 7.00 a.m. to 10.00 p.m. on the days of the week and power it off on Saturdays and on Sundays, please set up the bands by means of the corresponding menu, as it is shown by the following table.

Day		1	2	3	4	5	6	7
Band 1	start	00.00	00.00	00.00	00.00	00.00	00.00	00.00
	end	07.00	07.00	07.00	07.00	07.00	23.59	23.59
Band 2	start	22.00	22.00	22.00	22.00	22.00	00.00	00.00
	end	23.59	23.59	23.59	23.59	23.59	00.00	00.00

When the "Energy saving" time band has tripped, the illumination of the glassfront will remain active and the display show the "Out of service" message.

MACHINE LED OUT OF SERVICE

Use this function to define whether to turn on or off the illumination of glass front when the machine is out of service or let lighting always on.

PROGRAMMING THE VENDING MACHINE CODE

Use this function to change the "machine code".

The "machine code" is an 8-digit numeric code identifying the machine (default 00000000)

PROGRAMMING THE OPERATOR CODE

Use this function to change the 6-digit numeric code identifying groups of machines (default 00000000).

INSTALLATION DATE

Use this function to store the current system date as the installation date.

The date is printed at the time of rolling out statistics.

MASTER/SLAVE

The control system of the machine is arranged for bank connection with other automatic vending machines by using special kits.

This will enable the operator to use one single payment system for several machines.

Even if you can use the machine in the master and slave function, it is recommended to use the snack machine as a master to make use of the central keyboard and to open the doors more easily.

The master/slave function is not enabled by default.

To enable it, define the master machine and the slave machine in the software of the master machine and in the software of the slave machine.

The payment system of the slave machine shall always be defined as a "validator".

In case of power failure, both machines will display the "communication failure" message.

SET UP

Use this function to define whether the machine is a "Master", i.e. controlling the second machine, or a "Slave", i.e. controlled by the other machine.

SLAVE PRICE HOLDING

Enable this function is the machine is configured as a “slave” and an executive payment system is set up on the master in the “price holding” mode.

COMBINED SELECTIONS

Use the function to combine two selections (one of the “Master” machine and one of the “Slave” machine).

TYPE OF SAMBA

If 2 or more than two vending machines are bank-connected, use this function to define the Master/Slave hierarchical order among the vending machines of the same type by assigning each of them a label (Samba2; Samba3; etc.)

RESET SAMBA SL

Use this function to reset all settings relative to the master/slave function on the “Slave” machine.

MONITOR

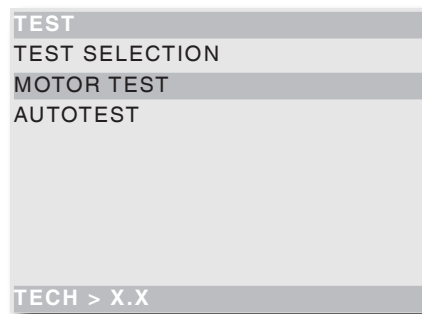
Use this function to scroll all information about the “Slave” machine, if connected.

After having set the display to this function, power on the slave machine to display the following slave information in sequence:

- software release
- type of slave (XX, 0XX, 9XX)
- presence of photocells intended to detect the dispensing cycle
- number of trays and drawers
- presence of the device intended to lock the opening of the dispensing compartment
- temperature detected by the internal probe.

TEST

This group of functions is intended to test the main components of the machine.



TEST SELECTION

Use this function to simulate the normal distribution of products without inserting the corresponding amount. To check the rotation of the motors, select the selection number.


MOTOR TEST

This function is intended to operate all motors of the trays.



AUTOTEST

correct operation of the machine devices half-automatically.

Some tests occur automatically whereas others require the manual operation of the component under test.

Press button  to test the next device.

The devices under test are listed here below:

- **Keyboard:** the display shows the key you have to press. If the key can operate properly, you will be required to check the next key.
- **Temperature:** to display the refrigerated box temperature value measured by the probe.
If the display shows “-11.0”, it means that the probe is faulty.
If the display shows “41.0”, it means that the probe has short-circuited.
- **Buzzer:** a series of sounds is produced to check the acoustic signaller.
- **Compressor:** press key  to activate the compressor and key  to deactivate it

- **Selections:** to activate all selections in a sequence.
- **Coin mechanisms:** to check the correct communication with the coin mechanism and which validator lines are set up as active.
- **Photocells:** to check the device intended to detect the product passage. The interruption of the light beam is detected.
- **Compartment lock:** press key **↵** to lock the compartment and key **←** to release it.
- **Direct keyboard:** If the direct selection keyboard is available on the machine, the five keys are checked in sequence.
The display shows the key you have to press. If it is working properly, you will be required to press the next key.

TEMPERATURE TEST

This group of functions that may be of use after having acted on the cooling unit is intended to check the operation of the cooling unit and the internal temperature probe.

START TEST

It is intended to start the temperature test. The operator is required to enter an identification code (that may be even zero) and the refrigerated box temperature is detected and stored every 30 seconds for a 20-min. normal operation.

Press key **↵** to display the test progress and the number of acquisitions made.

The machine is available for the other functions during the temperature test.

PRINT TEMPERATURE

Connect a serial printer with the following communication parameters: baud rate 9600, 8 data bits, no parity, 1 stop bit, with the RS232 serial connector inside the door to print the temperatures measured during the test.

To print the stored data, act as follows:

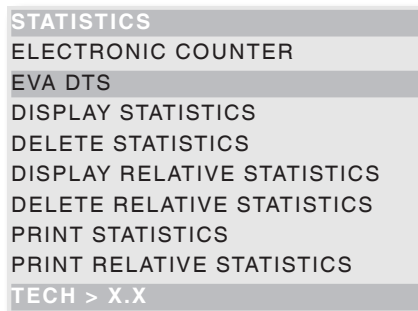
- Press key **↵** to display the request for confirmation, i.e. the message "Do you confirm?"
- Connect the printer before confirming
- Press key **↵** to start printing.

STOP TEST

Use the function to stop acquiring the temperature in the refrigerated box.

STATISTICS

The operation data of the machine are stored in total and relative counters that can be reset without losing total data.



ELECTRONIC COUNTER

An electronic counter is intended to store all the dispensing cycles you have performed since you last reset it in an aggregated manner.

TO DISPLAY THE ELECTRONIC COUNTER

Function used to display the total number of dispensing cycles that have been sold since you last reset the statistics.

TO RESET THE ELECTRONIC COUNTER

You can reset the electronic counter.

TO DISPLAY THE ELECTRONIC COUNTER AT THE START-UP

Function used to enable or disable the display of the total number of dispensing cycles that have been sold since you last reset the statistics, while you are powering on the machine.

EVA-DTS

Two codes are used to identify the machine and recognise the data transfer terminal according to the EVADTS (European Vending Association Data Transfer System) communication protocol.

To access the settings (such as communication speed, type of transmission, ...), choose the communication protocol you wish to use with the data acquisition device. Use the scrolling keys **↑** and **↓** to scroll the communication protocols.

COMMUNICATION PROTOCOL

DDCMP ENHANCED

with the following configurable parameters:

- **Pass code:** it is a four-digit numeric code (from 0 to 65535) that shall be the same as the one of the data transfer terminal for identification.
Default setup 0000
- **Security code:** it is a numeric code (from 0 to 65535) for mutual recognition between machine and EVA DTS transfer.
Default setup 0000
- **End-of-transmission:** if enabled, it can recognise the end-of-transmission signal sent to the last package and interrupt data transmission.

DEX/UCS

No configurable parameter is expected for this protocol:

DATA TRANSMISSION

The function is intended to select which communication interface shall be used for data transmission. The following interfaces are made available:

- "RS232" and "IrDA": for communication with serial or infrared data acquisition devices.
- "ALWAYS EVA DTS" for communication with data acquisition and transmission devices (telemetry).

EVADTS TYPE

The function will enable the operator to choose how to manage the communication speed with data acquisition devices:

- "ENHANCED": the communication speed is automatically adjusted to the maximum speed of the slowest device.
- "FIXED": the communication speed is fixed and it uses the communication speed set up by means of the "baudrate" function.

BAUDRATE (TRANSMISSION SPEED)

To choose the communication speed of transmission (only if "EVA DTS type" is set to "fixed").
Default setup 2400bps.

CONNECTION

If you activate this function, the machine will be waiting for connection with a device in order to acquire EVADTS data.


REFILL ENABLE

Only for models with a data transmission system.

The function is intended to enable the request to enter the "refill code" at the end of the power-on cycle of the machine.

The "refill code" is a 4-digit code (1234 by default) used to reset the counters managing the "ending product" pre-alarms to be sent by means of the data transmission system.

DISPLAY STATISTICS



Press the Enter key  to display the data you have stored in sequence, i.e.:

- 1 - counter by single selection;
- 2 - counter for bands;
- 3 - failure counter;
- 4 - coin mechanism data.


DELETE STATISTICS

Statistics can be reset either globally (all types of data) or selectively, i.e. by:

- selections
- discounts-overprices
- failures
- coin mechanism data

Press the Enter key  to display the request for confirmation "Do you confirm?"  flashing on and off.
Press the Enter key to display the "Execution" message for some seconds and to reset statistics.

DISPLAY RELATIVE STATISTICS



Press the Enter key  to display the data you have stored in sequence, i.e.:

- 1 - counter by single selection;
- 2 - counter for bands;
- 3 - failure counter;
- 4 - coin mechanism data.

DELETE RELATIVE STATISTICS

Statistics can be reset either globally (all types of data) or selectively, i.e. by:

- selections
- failures
- coin mechanism data

Press the Enter key  to display the request for confirmation "Do you confirm?"  flashing on and off.
Press the Enter key to display the "Execution" message for some seconds and to reset statistics.


PRINT STATISTICS

Connect an RS232 serial printer having 9600 baud rate, 8 data bits, no parity, 1 stop bit with the serial connector on the slide-in compartment to print the statistics stored by:

- 1 - counter by single selection;
- 2 - counter for bands;
- 3 - failure counter;
- 4 - coin mechanism data.

or to print all statistics

PRINT RELATIVE STATISTICS

Press the Enter key  to print all the data you have stored in sequence, i.e.:

- 1 - counter by single selection;
- 2 - counter for bands;
- 3 - failure counter;
- 4 - coin mechanism data.

BDV protocol audit

The coin mechanism data are intended to supply the following information in real currency:

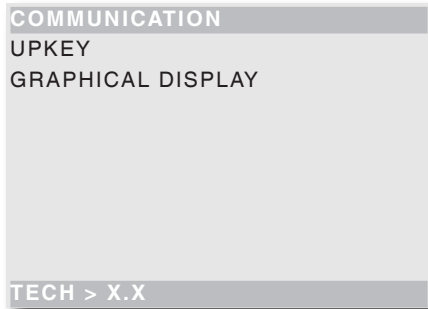
- **Aud. 1** Money in the tubes
money currently available in the change tubes
- **Aud. 2** Money to the tubes
Money conveyed to the change tubes
- **Aud. 3** Money to the coin box
Money conveyed to the coin box
- **Aud. 4** Change returned
Total amount of the money that has been returned.
- **Aud. 5** Money dispensed
Total amount of the money that has been manually dispensed
- **Aud. 6** Surplus
Surplus money. Amounts paid by the customer in excess and not returned (in case no money is available for change)
- **Aud. 7** Total sales
Total sales value.
- **Aud. 8** Exact change
Sales value on the "Insert exact amount" condition.
- **Aud. 9** Mixed dispensing
Total dispensing value paid in a different way, e.g. also other types of payment (C.P.C., coin).
- **Aud. 10** Manual load
Money inserted into the coin mechanism by means of the manual loading function.

MDB protocol audit

- **Aud. 1** Money in the tubes
money currently available in the change tubes
- **Aud. 2** Money to the tubes
Money conveyed to the change tubes
- **Aud. 3** Money to the coin box
Money conveyed to the coin box
- **Aud. 4** Change returned
Total amount of the money that has been returned.
- **Aud. 5** Surplus
Surplus money. Amounts paid by the customer in excess and not returned (in case no money is available for change)
- **Aud. 6** Unloading of tubes
Value of the coins dispensed by means of the "Manage tubes" function
- **Aud. 7** Loading of tubes
Value of the coins cashed by means of the manual loading function.
- **Aud. 8** Cash sales
Value of the total sales made cash (coins + banknotes)
- **Aud. 9** Banknotes cashed
Value of the banknotes that have been cashed
- **Aud.10** Charge key
Value of the money that has been recharged on the key
- **Aud.11** Key sale
Value of the money that has been cashed through key-dispensing.
- **Aud.12** Money dispensed manually
Value of the coins that have been manually dispensed through the dispensing buttons on the coin mechanism.

COMMUNICATION

This menu is intended to group the communication functions of the device.



UP-KEY

SETUP MANAGEMENT

UPKEY -> VENDING MACHINE

After having inserted the Up key into the plug on the C.P.U. board, this function is used to select the setup file from the list on the display. Press the Enter key to load the setup file you have selected on the machine.

VENDING MACHINE -> UPKEY

After having inserted the Up key into the plug on the C.P.U. board, this function is used to save on the Up key a setup file with the same configuration currently available on the machine.

Please specify the name you wish to assign to the file (e.g.: SAMBA000.STP)

DELETE

Use this function to delete one or more than one setup file on the up key you have inserted.

DELETE ALL

Use this function to delete all the setup files on the up key you have inserted.

UPKEY STATISTICS MANAGEMENT

VENDING MACHINE -> UPKEY

Confirm this function after having inserted the Up key into the plug on the C.P.U. board to save on the up key the statistics file with all the statistical data currently available on the vending machine. Please specify the name you wish to assign to the file (e.g.: SAMBA000.STA)

DELETE

Use this function to delete one or more than one statistics file on the up key you have inserted.

DELETE ALL

Use this function to delete all the statistics files on the up key you have inserted.

GRAPHICAL SCREEN

ENABLE/DISABLE

To manage the communication between CPU and the graphical screen on the machine. The function is disabled by default.

PROGRAMMING THE GRAPHICAL SCREEN

The relative functions are programmed by the control software of the graphical screen.

Use the same keys of the machine to move inside the menus of the graphical screen.

Press key **5** to quit the menus intended to configure the graphical screen and go back to the programming menu of the machine.

Attention !!!

The key is active only in the models equipped with a graphical display for the reproduction of promotional videos (optional).

RESET THE GRAPHICAL DISPLAY

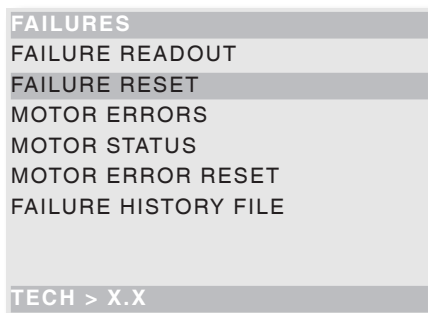
This function is to be used to restart the graphical screen after having acted on its software.

FAILURES

The machine is equipped with several sensors intended to control the various functional units.

As soon as a malfunction is found out, the type of failure is displayed and the machine (or part of it) is set out of order.

The failures are stored in special counters.



FAILURE READOUT

Function used to display the current failures.

Press the Enter key **↵** to display the current failures.

If there is no failure at the moment, the "Failure end" message will appear on the display by pressing key **↵**.

Possible failures are listed here below:

- **Compressor:** The machine stops if the compressor is working for over twenty-four consecutive hours.
- **Coin mechanism:** The machine stops if it should receive an over 2-sec. pulse on a validator line or if the communication with the coin mechanism is not longer than 30 (Executive protocol) or 75 (BDV protocol) seconds.
- **RAM data:** One or more than one area of the RAM memory contain altered data that have been corrected by default values.
- **Probe:** The machine stops after 5 minutes if the probe is found out to be electrically interrupted (the display shows -11°C).
The machine stops after 1 hour if a probe short-circuit is found out (the display shows +41°C).
- **Motor error:** The machine displays all faulty motors. Faulty motors are displayed every 1 second.
Note: If you power on the machine again, any faulty motor is found out as not available.

- Dispensing compartment lock:

- If the function "compartment release upon dispensing" is enabled, the fault is signalled if the closing device is not released and locked within a well-defined time interval after the selection once again.

- If the function "out of service if open" is enabled, the failure to lock the closing device is displayed to lock the operation of the machine.

- If the function "out of service if open" is disabled, the failure to lock the closing device is displayed.

FAILURE RESET

Function used to reset all current failures, if any.

MOTOR ERRORS

Use this function to display faulty motors for about 1 second.

All faulty motors are scrolled automatically.

Note: If you power on the machine again, any motor that may have jammed is found out as not available.

STATE OF MOTORS

Use this function to learn the failure that last occurred on every single spiral even if the machine configuration provides for an empty position.

A motor can be in one of the following states:

- motor running;
- motor not available; when the motor is not detected as soon as you power on the machine.
- motor disconnected; when a motor is detected as soon as you power on, but not during the dispensing cycle
- motor locked; when the positioning switch is not operated within the "time out" time.
- empty spiral; when the dispensed product is not detected when the dispensing control device is mounted (photocells).

MOTOR ERROR RESET

Function used to reset all current failures, if any.

HISTORY FILE OF FAILURES

Use this function to display the history file of failures. The history file shows the failure with the corresponding date and time.

Chapter 3 MAINTENANCE

The maintenance operations described by this chapter shall be performed when the machine is live. This means that they shall be carried out by the personnel specialised, trained on the use of the machine and informed about the specific risks that this condition involves. To power on the plant when the door is open, just insert the key into the payment compartment door switch (see fig. 20).

Only the parts protected by covers and signalled by the plate “power off before removing the cover” remain live inside the machine.

Before removing these covers, detach the machine from the power mains.

The intactness of the machine and its compliance with the rules of the relative installations shall be checked by skilled personnel at least once a year.

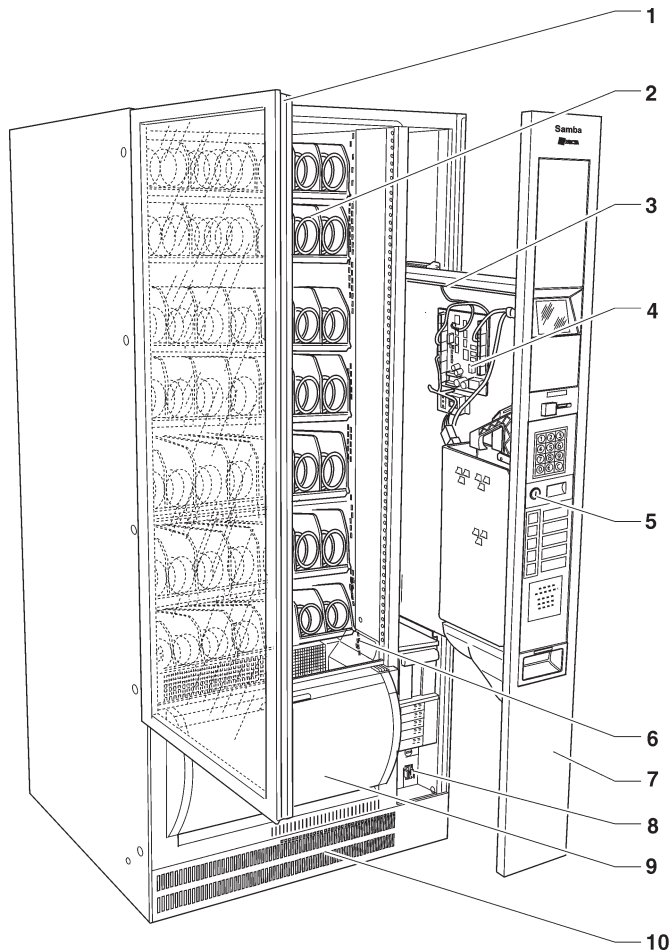


Fig. 20

- 1- Glassfront opening grip
- 2- Trays
- 3- Glassfront lighting board
- 4- C.P.U. board
- 5- Lock and handle intended to open the slide-in compartment
- 6- Photocells (optional)
- 7- Slide-in compartment of payment systems
- 8- Main switch
- 9- Dispensing compartment
- 10- Feet cover

STANDARD TRAY CONFIGURATION

PRODUCT SPACER

The spacers must be used to load “narrow” products. Mount them in such a way that they can contain the product - without blocking it - towards the right side of the compartment so that it stays upright. Insert the longest part of the brackets into the hole on the compartment wall.

Couple the shortest part of the brackets with the spacer in one of the 5 notches. Adjustment notches enable the spacer to protrude more or less from the compartment. The maximum projection from the compartment may be useful for some types of products.

The spacer remains mobile. Push it forwards or backwards to adjust it to the type of product to be dispensed. However, leave at least 3 mm between the spacer and the product.

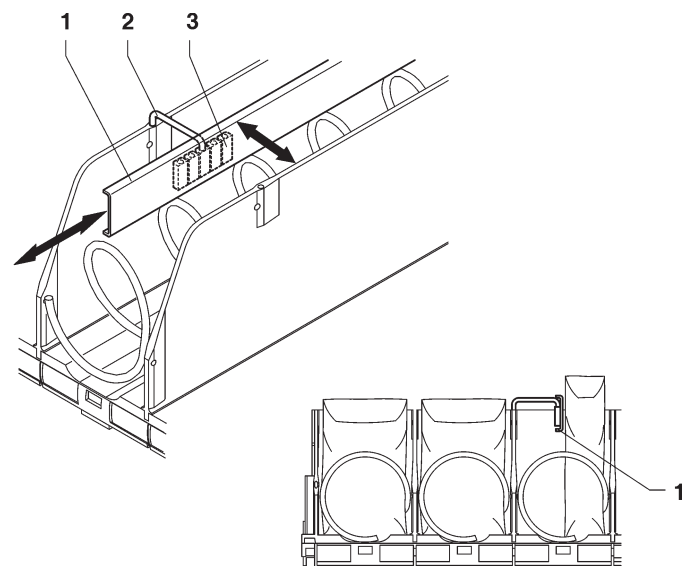


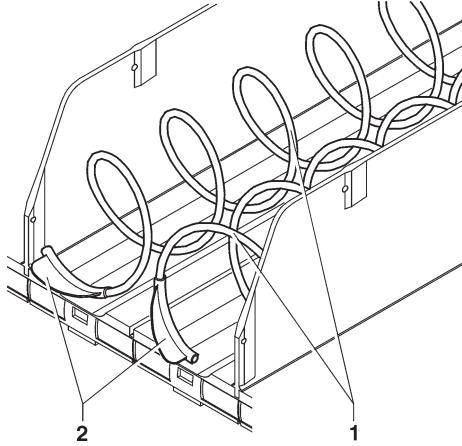
Fig. 21

- 1- Product spacer
- 2- Brackets
- 3- Adjustment notches

PRODUCT EJECTOR

Right and left ejectors must be used for products packed in bags, such as potato crisps or alike. As they are hooked at the end of the spiral, they will push the product further outside. If necessary, push them along the spiral wire to find out the position most suitable for the product to be dispensed.

Fig. 22
1- spirals
2- ejectors



PRODUCT DIVIDER

To dispense sticks of candies or alike, you can configure 75 mm compartments to double the compartment capacity by:

- mounting a spiral complete with a divider (see fig. 23)
- rotating the spiral by 180° instead by 360°

You can also insert a divider between already-existing spirals (see fig. 23).

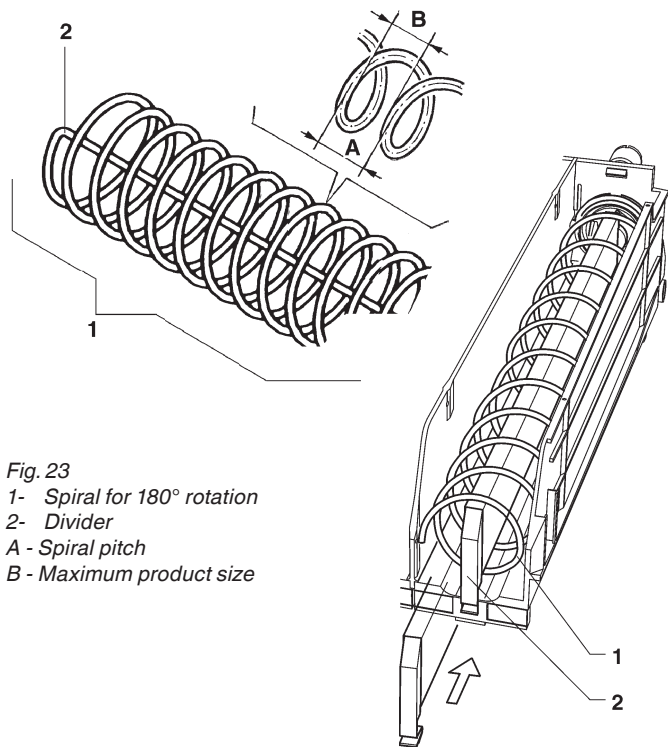


Fig. 23
1- Spiral for 180° rotation
2- Divider
A - Spiral pitch
B - Maximum product size

PRODUCT RAISED SUPPORT

It is recommended to use a product raised support to dispense plastic bottles up to 69mm, cans or 0.2L tetra-packs.

The product raised support shall be mounted, as it is shown by fig. 24

Most bottles can be dispensed without any product raised support by loading the bottles up side down so that the cap slides in the compartment channel.

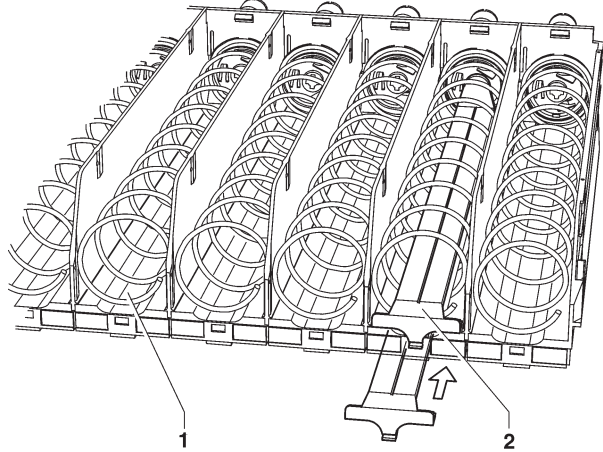


Fig. 24
1- Tray channel
2- Product raised support

CHANGING THE TRAY CONFIGURATION

The configuration of the spirals on each tray can be changed. To shift from two selections with single spirals to one selection with double spirals, act as follows:

- Remove the tray to be modified.
- Remove the central wall by pushing it towards the back and by lifting it later on.
- Detach the spirals and the relative flanges from the two motors.
- Disconnect the left motor from the wiring and remove it from the tray. In its place, fit the bush and pin bush.

- First, mount the right-hand and left-hand spirals with the same pitch onto the new flanges (the right one and the left one are the same), fitted with a transmission gear wheel. Then, couple the right-hand one with the motor still on the tray and the left-hand one with the bushes you have mounted before. The two gear wheels must mesh.
- Remove the price and tray labels no longer used and, if necessary, update the price labels still in use.
- Set the sales price you wish for the new selections.
- Test the modified selections to be sure they are properly working.

Please Note: The selection numbers are formed by two digits; the first digit refers to the tray number, counting from the top (1-6), the second digit refers to the spiral number, counting from the left (0-5). The selection number to which the motor is connected will therefore be formed by the tray number plus the wire code number.

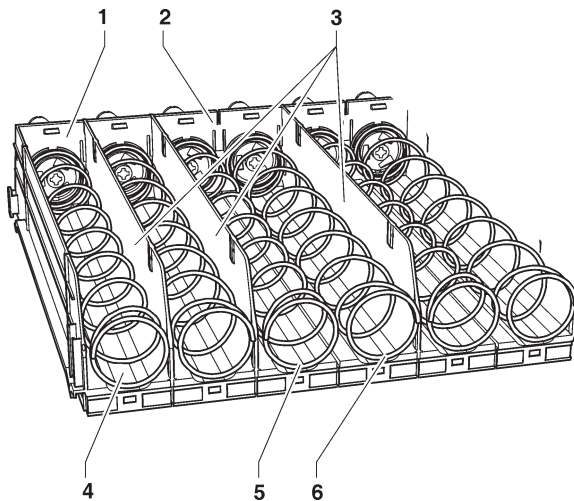


Fig. 25
 1- Single compartment
 2- Double compartment
 3- Compartment walls
 4- Compartment channel
 5- Left-hand spiral
 6- Right-hand spiral

REPLACING THE SPIRALS

To replace the spirals, act as follows:

- Extract the tray in question.
- Rotate the spiral in the direction opposite to the ejection rotation while holding the plastic support flange still to separate the two parts.
- Fit the new spiral unit by acting in the opposite direction: Make sure that the spiral is positioned correctly.

The spirals can be positioned with 22.5 degree steps by pulling them towards the front and rotating them in the direction of ejection.

The products can be dispensed without any problem when the spiral end is at the bottom and in the middle. If the pitch and sense of spirals is known, the table here below and of fig. 23 will help you calculate the maximum size and the number of dispensable products.

	Spiral pitch (mm)	Product size (mm)	Products per spiral
↻↻	100	96	5
	80	76	6
	64	60	7
	54	50	8
	46	42	9
	40	36	10
	34	30	11
	30	26	13
↻	24	20	15
	24 (180°)	20	19+19

The machine is supplied with a table indicating the optimum setting for the various product types.

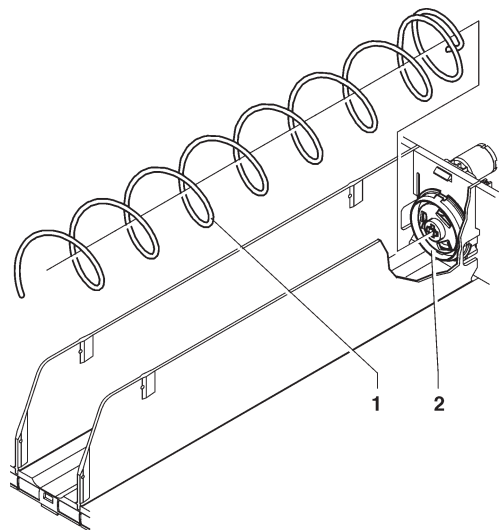


Fig. 26
 1- Spiral
 2- Plastic flange

CONFIGURATION OF BOTTLE/CAN TRAYS

The trays for bottles can be configured to dispense 0.5 l and 0.33 l plastic bottles as well as 0.33 and 0.25 l "slim" cans vertically.

You can:

- Replace the spirals with a pitch suitable for the product to be dispensed (see the paragraph "replace spirals")
- Change the position of the retaining spring according to the bottle height so that the bottle cap is placed above the retaining spring (see the figure)

However, test each compartment to make sure that the operation is correct.

Products particularly irregular or not very compact might not be dispensed automatically.

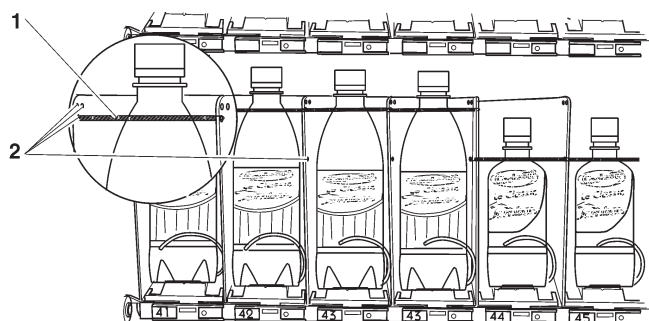


Fig. 27

1- Retaining spring

2- Holes intended to fasten the retaining spring

CHANGING THE NUMBER OF TRAYS

The vending machines are supplied with 6 or 7 trays. However, you can change the number of trays by acting as follows:

- Detach the machine plug from the power mains.
- Remove all trays from the machine.
- Move the guides (see fig. 26) placed on the side supports, except for the first ones at the bottom which stay in the same position.
- Remove the pair of guides not used.
- Reassemble the trays by making sure that the connectors are inserted properly.
- Secure the removed wiring to prevent it from hampering the movement of the other trays and the relative wiring.
- Reprogramme the machine.

CONFIGURATION OF THE COLD AIR DISTRIBUTION GRID

Cold air is dispensed from the grid at the back of the refrigerated box (behind the trays).

The machine is supplied with shutters intended to vary the stratification level of the refrigerated box temperature.

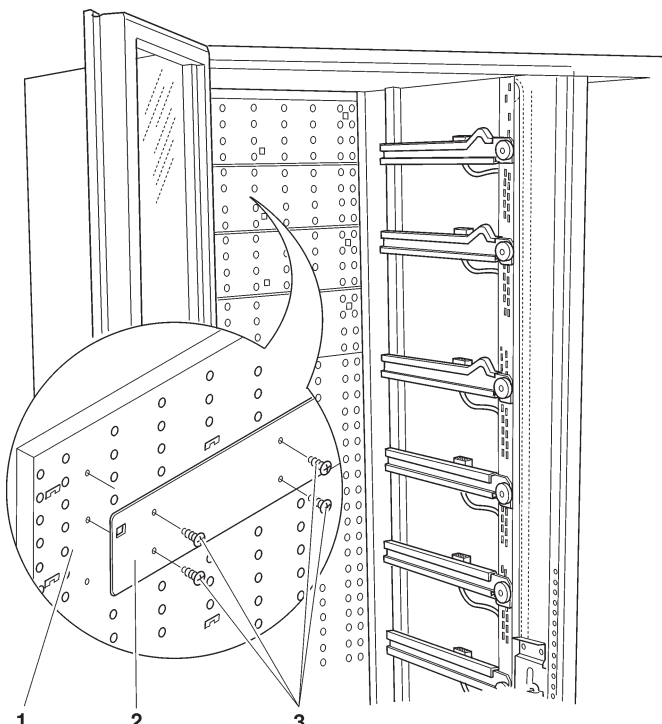


Fig. 28

- 1- Cold air distribution grid
- 2- Shutter
- 3- Shutter fastening screws

UNIFORM TEMPERATURE

If you wish to have a uniform temperature in the refrigerated box, the cold air distribution grid shall remain completely free (never assemble the shutters).

STRATIFIED TEMPERATURE

The machine may have up to 2 zones with different temperatures.

Shutters shall be placed on the cold air distribution grid consecutively behind the trays.

The stratification level varies according to the number and position of shutters.

The table shows the configuration experimentally established by the manufacturer:

2-zone configuration	
8-16 °C	air distribution grid CLOSED
5-8 °C	air distribution grid OPEN

RECLINING TRAYS

Spiral trays are complete with a leverage system that enables the operator to recline them to the bottom to facilitate the load cycle.

Just lock the leverage system by means of a screw in the position in which it is most convenient for you to keep the tray horizontal.

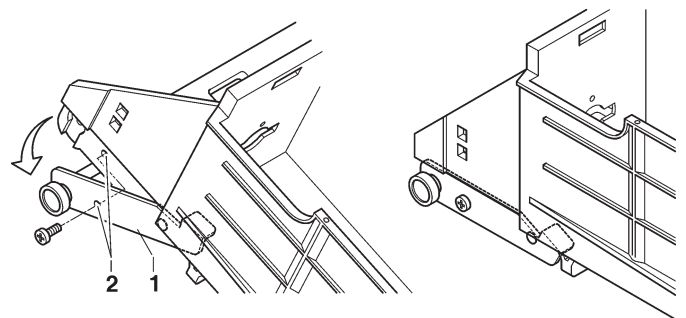


Fig. 29

- 1- Reclining tray lever
- 2- Lever locking holes (horizontal trays)

REMOVING THE TRAYS

To replace the tray, act as follows:

- Pull the tray as far as the limit stop;
- Detach the electrical connector from the tray;
- Lift the tray to unlock the retaining slide.
- Act in the reverse order to assemble another tray.

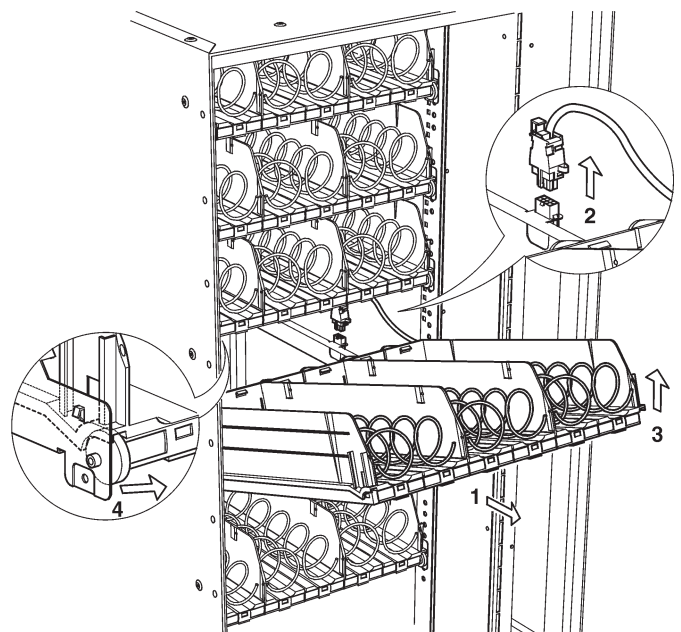


Fig. 30

BOARD FUNCTIONS

The C.P.U. board is arranged in the slide-in compartment of payment systems.

Open the slide-in compartment to access the boards.

CPU BOARD

The board is complete with some LEDs that can supply the following information during the operation:

- the green LED (26) is flashing on and off during the normal operation of the C.P.U. board;
- the yellow LED (28) will turn on when 5 Vdc is applied;
- the red LED (27) will turn on if the software is reset for any reason whatsoever.

The C.P.U. board manages

- motors of the trays
- dispensing compartment lock device
- numeric selection keyboard
- direct selection keyboard (if available)
- payment system
- the graphical display
- operation of the cooling unit and sensors
- product passage photocells
- current regulator board.

SOFTWARE UPDATE

The machine is equipped with Flash EPROM's that can be electrically rewritten.

Use a proper program and system (personal Computer, Up Keys or alike) to rewrite the machine management software without replacing the EPROM's.

Attention !!!

It is recommended to disconnect the motor connectors while downloading the software.

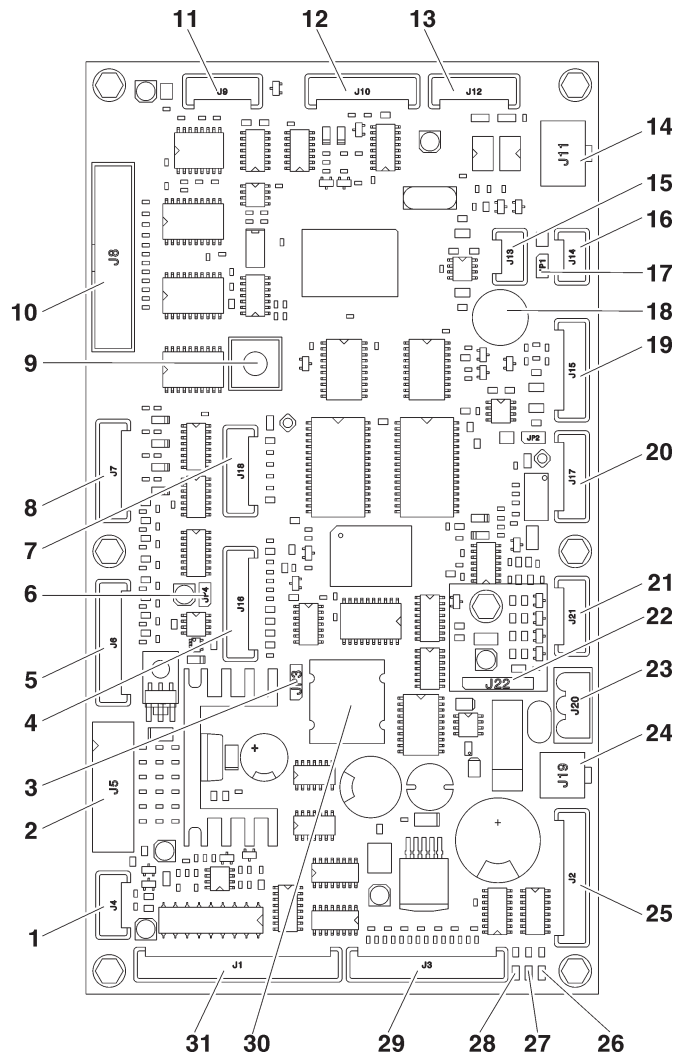


Fig 31

- 1- Temperature probe
- 2- Validators
- 3- Battery jumper (2-3)
- 4- not used
- 5- Direct selection keyboard (if available)
- 6- JP4 WDI jumper (closed)
- 7- Up-key
- 8- Selection keyboard
- 9- Programming button
- 10- Display
- 11- not used
- 12- RS232 serial port
- 13- EXE/BDV payments
- 14- MDB payments
- 15- Can-Bus
- 16- Can-Bus
- 17- Can-Bus JP1 jumper (closed)
- 18- Buzzer
- 19- Photocells (if available)
- 20- Not used
- 21- Not used
- 22- RAM data expansion (optional)
- 23- 24Vac supply
- 24- To the glassfront lighting board
- 25- Compartment lock / lighted path
- 26- DL3 "RUN" green led
- 27- DL2 "RESET" red led
- 28- DL1 "+5V" yellow led
- 29- To the external programming button and OUT/R management of the cooling unit
- 30- Battery
- 31- Tray motors

GLASSFRONT LIGHTING BOARD

This board is intended to supply the LED's intended to light the glassfront to have constant brightness. The board is placed in the slide-in compartment of payment systems.

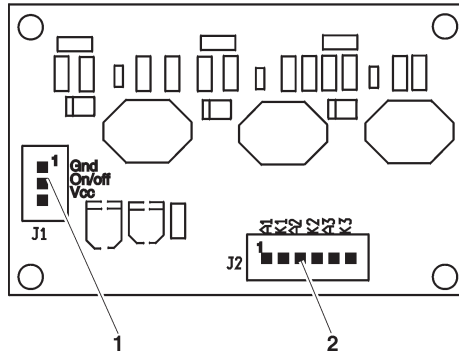


Fig 32
1- To the CPU board
2- To the LED boards

ELECTRIC PANEL

The electric panel is accommodated in the slide-in compartment of payment systems. Fuses and the compartment switch can be directly accessed. Remove the metal protection, to access the connectors in the front of the electric panel.

Before replacing any fuse, please detach the power supply cable from the mains.

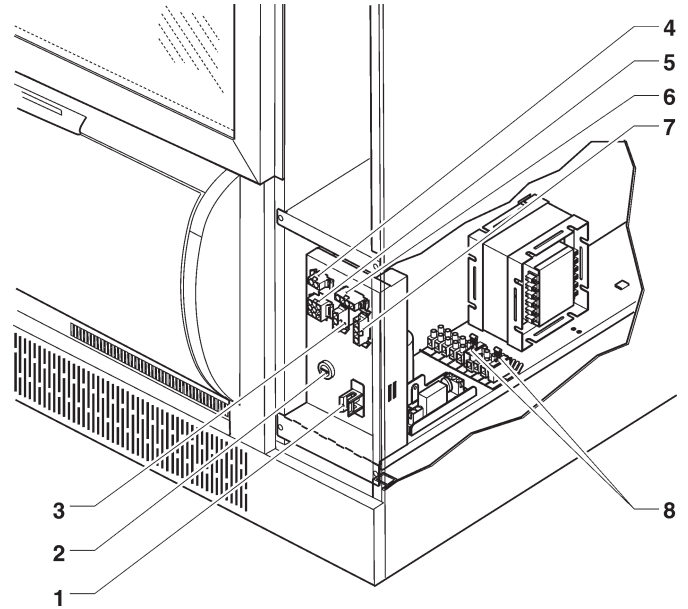


Fig. 33
1- Main switch
2- Line fuse
3- Not used
4- Not used
5- CPU power supply connector
6- Not used
7- Motor-driven fan compressor connector
8- Transformer protection fuse

ACCESS TO THE COOLING UNIT

If you have to access the cooling unit from the machine for any reason whatsoever, please act as follows:

- Detach the machine from the mains
- Remove the feet cover
- Remove the vandal-proof grid
- Remove the screws intended to fasten the product dispensing compartment and extract it from the machine.
- Remove the screws intended to fasten the cooling unit and extract the cooling unit.
- Remove the temperature probe.
- To reassemble, act in the reverse order.

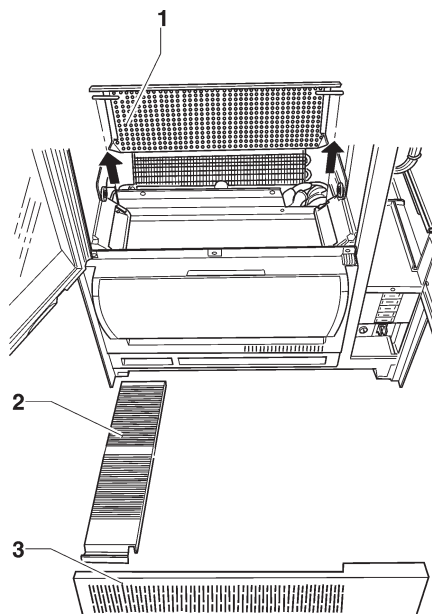


Fig. 34

- 1- Vandal-proof grid
- 2- Removable grid
- 3- Feet cover

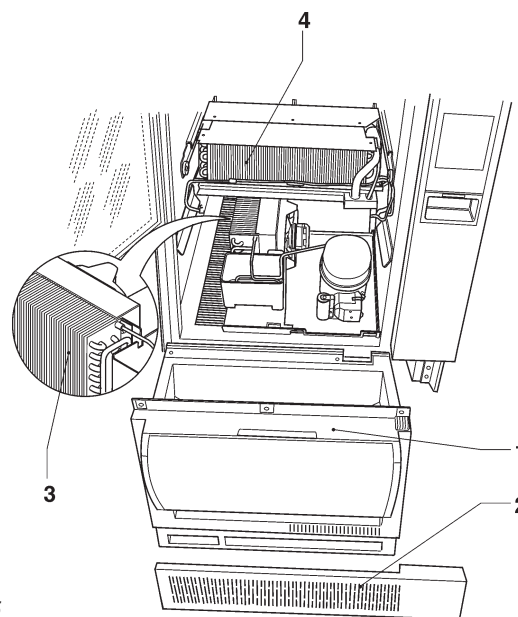


Fig. 35

- 1- Dispensing compartment
- 2- Feet cover
- 3- Condenser
- 4- Evaporator

PROGRAMMING KEY SUMMARY

The machine can work in 3 different operation states:

- **Normal operation mode;**
- **Filler menu;**
- **Technician menu.**

To be able to access the programming menus, press the programming button inside the door:

Now, the machine is set to the Filler Menu mode.

Press the key ← to move from the “Technician Menu” to the “Filler Menu” and vice versa.

1	2	3
4	5 ↕	6
7	8 ↑	9
0 ↓	E ←	C ←

Fig. 36

NAVIGATION MODE

To move inside the menus, use the keys shown by the figure:

NEXT MENU KEY [0]:

↓ to move to the next menu option.

In the case of command management, it varies the logic status of a data item (**On/Off**), where required, or it writes the value 0 in case of entry of a number.

PREVIOUS MENU KEY [8]:

↑ to move to the previous menu option.

In the case of command management, it varies the logic status of a data item (**On/Off**), where required, or it writes the value 8 in case of entry of a number.

ENTER KEY [E]:

← to move from a menu to a sub-menu or to confirm the execution of a command.

EXIT KEY [C]:

← to go back from a sub-menu to a higher level menu or not to execute the active command for the time being.

KEY TO QUIT THE GRAPHICAL DISPLAY CONFIGURATION [5]:

↕ to quit the configuration menus of the graphical display and go back to the programming menu of the machine.

Attention !!!

The key is active only in the models equipped with a graphical display for the reproduction of promotional videos.

ENTERING ALPHANUMERIC VALUES

When the management software requires the operator to enter alphanumeric characters, keys assume the following functions:

- The Enter key ← will enable the operator to modify / enter the first character, to confirm it and to move to the next one.
- The keys ↑ and ↓ will enable the operator to scroll all available values.

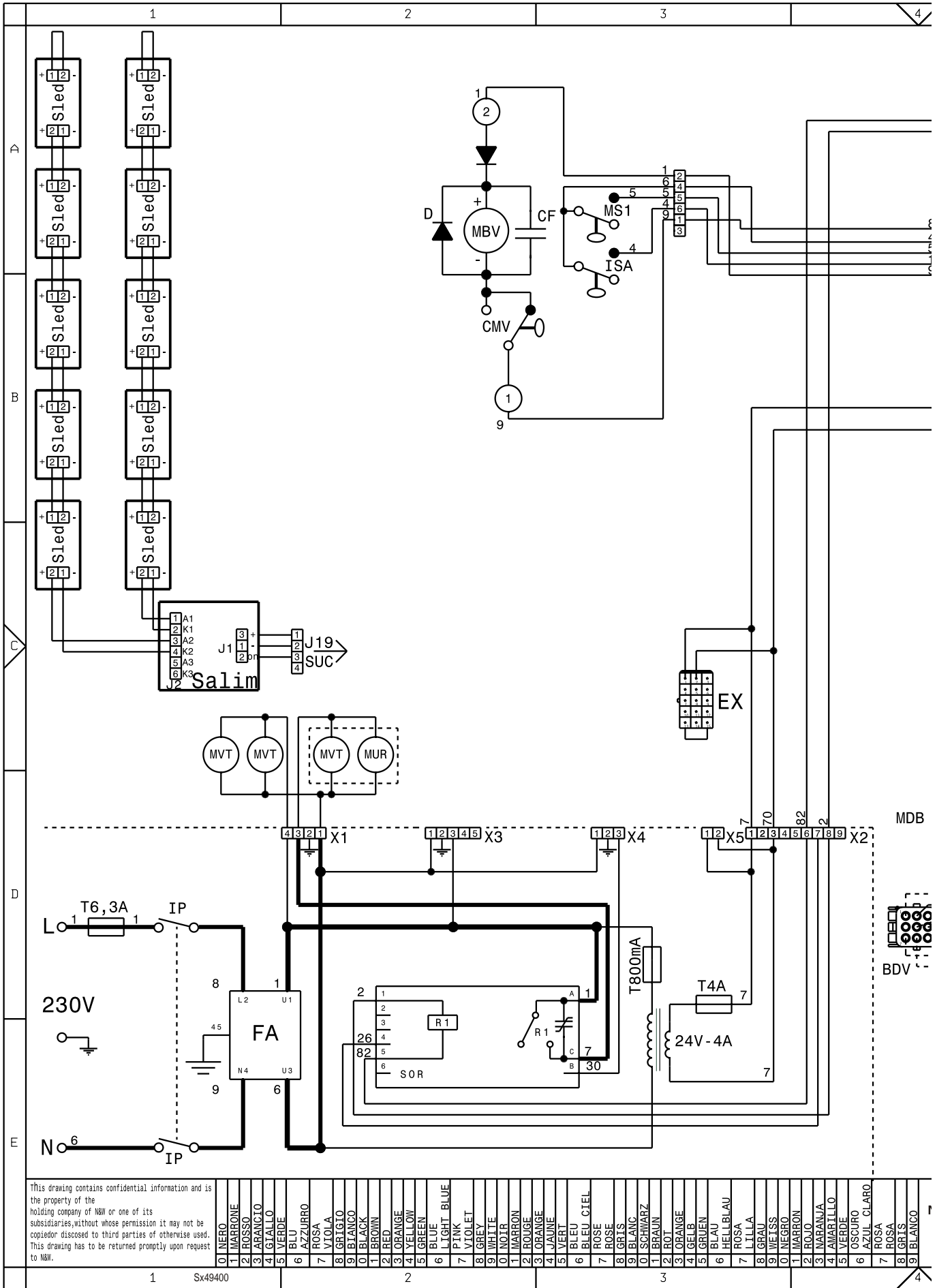
ENTERING PASSWORDS

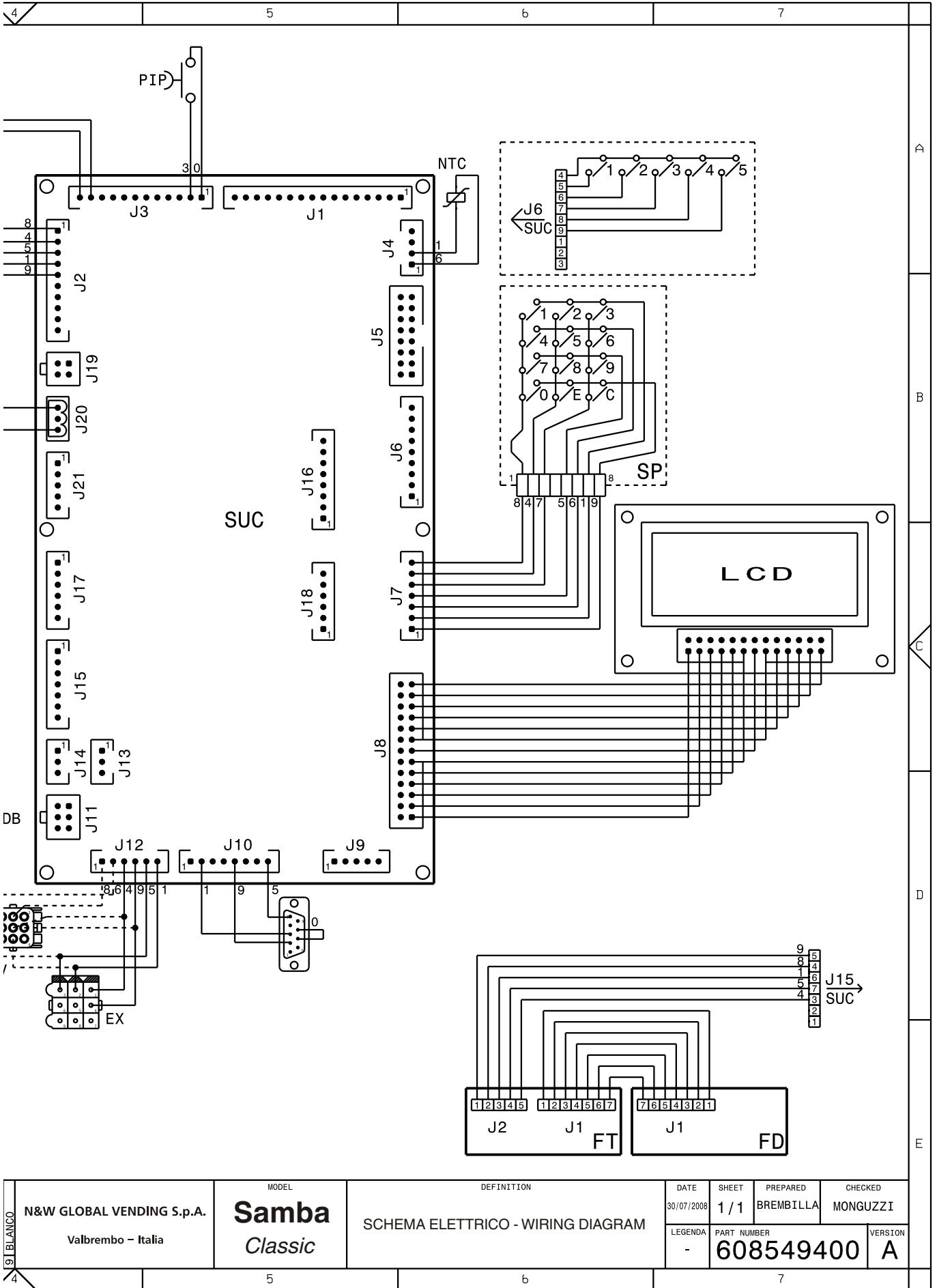
Passwords are 5-digit numeric codes.

When the management software requires the operator to enter a password, the keyboard will assume the corresponding numeric values.

WIRING DIAGRAM LEGEND

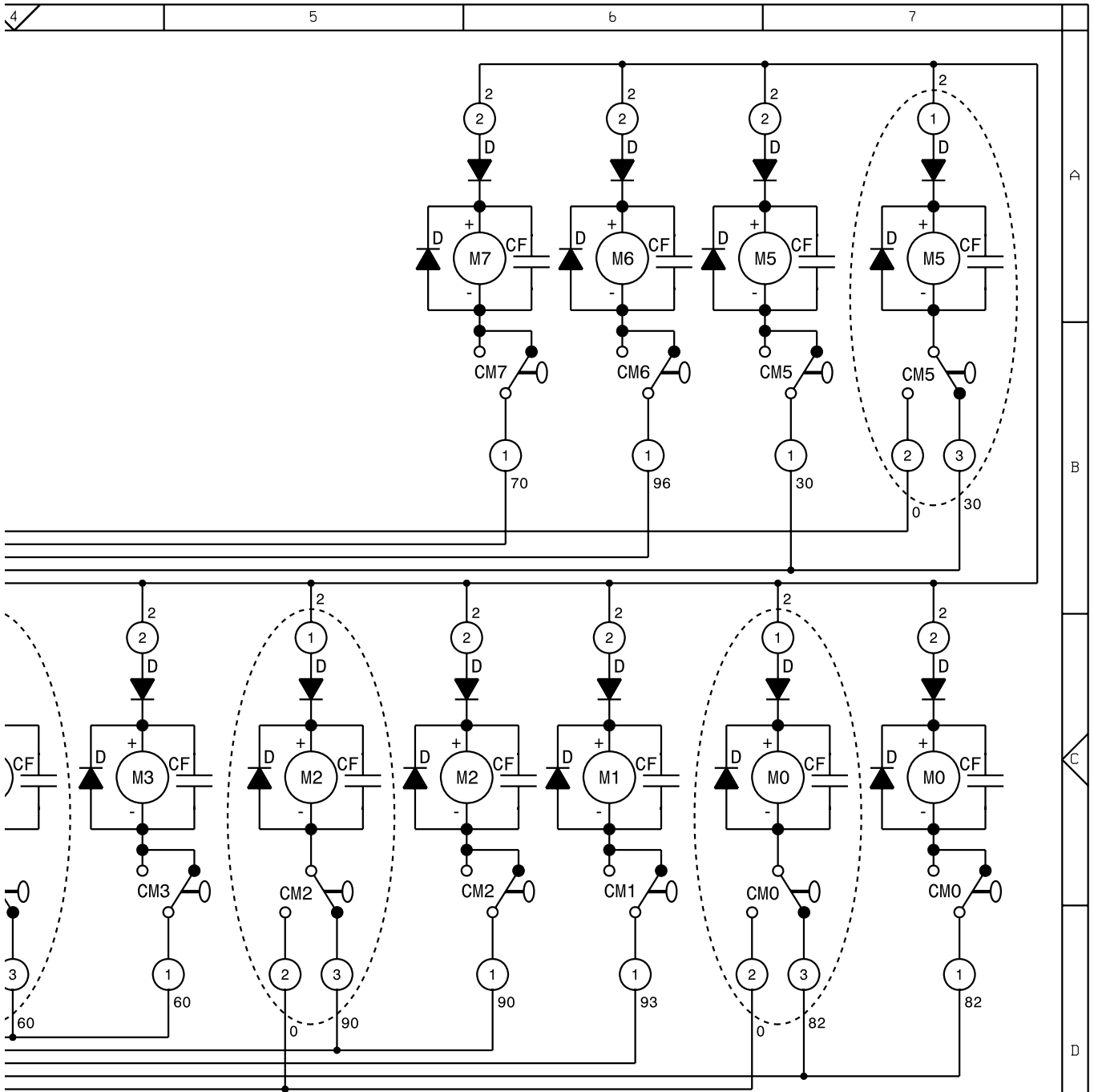
INITIALS	DESCRIPTION	INITIALS	DESCRIPTION
BDV	BDV COIN MECHANISM CONNECTOR	MDB	MDB COIN MECHANISM CONNECTOR
CF	FILTER CONDENSER	MUR	COMPRESSOR
CM0-9	VENDING MOTOR CAM	MVT	MOTOR-DRIVEN FAN
CMV	COMPARTMENT LOCK MOTOR CAM	NTC	TEMPERATURE PROBE
D	DIODE	PIP	PROGRAMMING BUTTON
EX	EXECUTIVE COIN MECHANISM CONNECTORS	R1-...	RELAY
FA	RADIO INTERFERENCE SUPPRESSOR	RS232	SERIAL PORT
FD	PHOTODIODE	SALIM	POWER SUPPLY UNIT BOARD
FT	PHOTOTRANSISTOR	SLCD	LIQUID CRYSTAL DISPLAY BOARD
IP	DOOR SWITCH	SLED	LED BOARD
ISA	OPEN FLAP SWITCH	SOR	OUT/R BOARD
LCD	LIQUID CRYSTAL DISPLAY	SP	BUTTON BOARD
M0-9	VENDING MOTORS	SUC	CPU BOARD
MBV	DISPENSING COMPARTMENT LOCK MOTOR	TX....	DELAYED FUSE (X=CURRENT)





9 BLANCO	N&W GLOBAL VENDING S.p.A. Valbrembo - Italia	MODEL Samba <i>Classic</i>	DEFINITION SCHEMA ELETTRICO - WIRING DIAGRAM	DATE 30/07/2008	SHEET 1 / 1	PREPARED BREMBILLA	CHECKED MONGUZZI
					LEGENDA -	PART NUMBER 608549400	VERSION A
	4	5	6	7			





J5 SLCD

1:6

CASSETTO	DIP 1	DIP 2	DIP 3	CASSETTO	DIP 1	DIP 2	DIP 3
CASSETTO 1	ON	ON	ON	CASSETTO 4	ON	OFF	OFF
CASSETTO 2	ON	ON	OFF	CASSETTO 5	OFF	ON	ON
CASSETTO 3	ON	OFF	ON	CASSETTO 6	OFF	ON	OFF

N&W GLOBAL VENDING S.p.A. Valbrembo - Italia	MODEL	DEFINITION	DATE	SHEET	PREPARED	CHECKED
	Samba <i>Classic</i>	Schema elettrico cassette Trays wiring diagram	30/07/2008	1/1	BREMBILLA	MONGUZZI
			LEGENDA	PART NUMBER	VERSION	
			-	608549502		



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