INSTALLATION, OPERATION, MAINTENANCE

Samba Top

EN English

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ad unico socio

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Reg. Produttori A.E.E.: IT08020000001054

Valbrembo, 01/01/2010

Targhetta di identificazione
Identification label

DICHIARAZIONE DI CONFORMITA'
DECLARATION OF CONFORMITY
DÉCLARATION DE CONFORMITÉ
KONFORMITÄTSERKLÄRUNG
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, descripta 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 Européias 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

Direttive europee **European directives**	**Sostituita da** **Repealed by**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

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:

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.

THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

IQNet and its partner
CISQ/IMQ-CSQ
hereby certify that the organization

N&W GLOBAL VENDING SPA

VIA ROMA 24 - 24030 VALBREMBO (BG)
VIA DEL CHIOSO 13 - 24030 MOZZO (BG)

for the following field of activities

Design, manufacturing and sale of electronical/electromechanical vending machines
Refer to quality manual for details of applications to ISO 9001:2000 requirements
has implemented and maintains a

Quality Management System

which fulfills the requirements of the following standard

ISO 9001:2000

Issued on: 2008 - 08 - 27

Registration Number: IT - 12979

René Wasmer
President of IQNET

Gianrenzo Prati
President of CISQ

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N&W GLOBAL VENDING SPA

VIA ROMA 24 - 24030 VALBREMBO (BG)

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: 2007 - 07 - 05

Registration Number: IT - 8753

René Wasmer
President of IQNET

Gianrenzo Prati
President of CISQ

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English

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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.

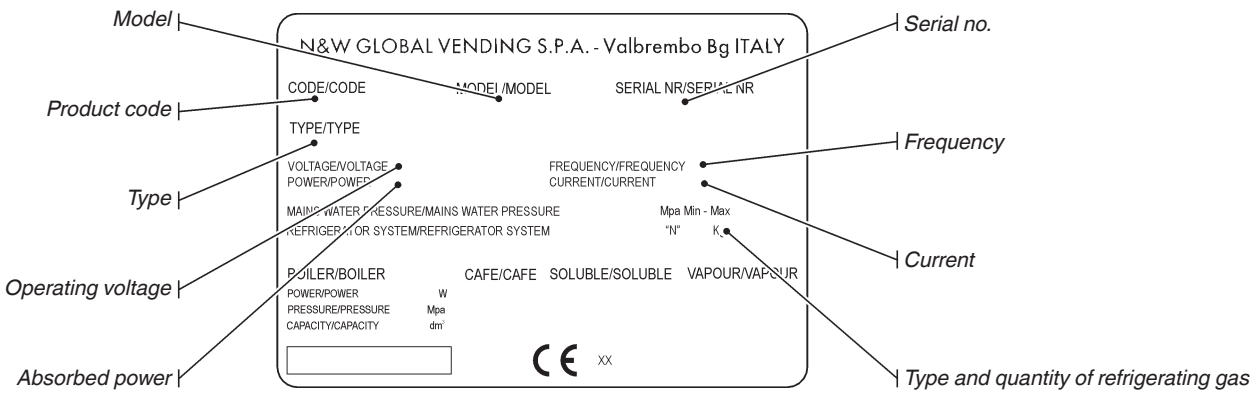

Fig. 1

USING THE VENDING MACHINES OF HERMETICALLY SEALED 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.
All models are equipped with variable-configuration trays. Some models can also have belt trays (MULTIMAX) for dispensing bottles and cans only.
In its maximum configuration, the machine can be used at the same time to:

- Dispense products requiring no refrigeration (snacks)
- Dispense products requiring refrigeration for preservation (food)
  The preservation of these products is guaranteed by the “food” area of the machine; the food area can be recognised by the presence of plates on dividing trays.
- Dispense food drinks originally sealed

Foodstuffs (in particular “food” products) shall be managed in full compliance with hygiene and food safety.

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 machine shall be placed near a wall.
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 current	A	4
- Absorbed power	W	630
Maximum operating conditions:		
- Room temperature	°C	34
- Relative humidity	%	65
Cooling system:		
- Compressor refrigerating capacity	W	814
- Ventilated evaporator		
- Programmable defrost cycle		

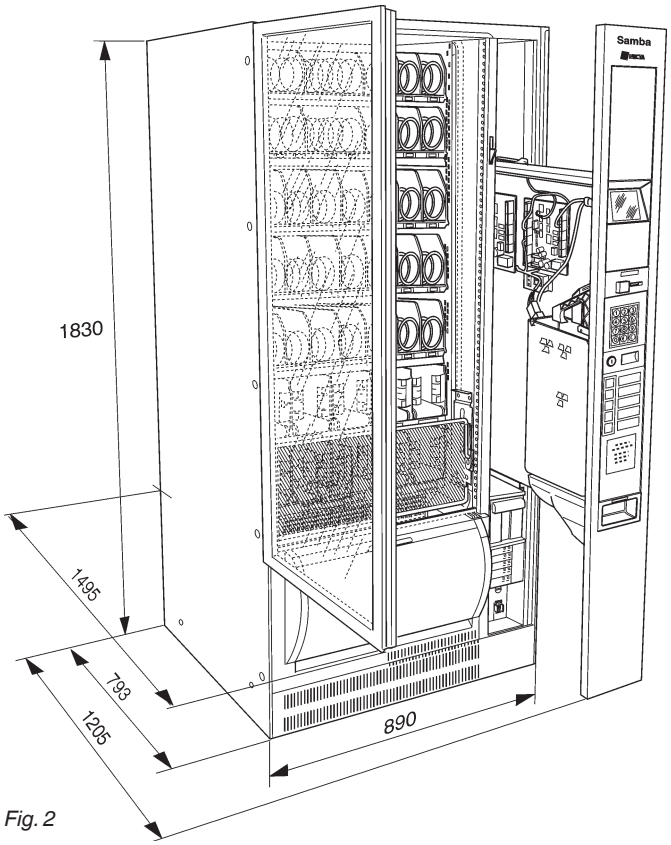

Fig. 2

PAYMENT SYSTEM

The machine is electrically arranged for the systems with an Executive, MDB, BDV and MDB protocol.

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
- SOFTVEND safety actuator
- Maximum sales motor supply time
- Compressor heat protection
- Line fuses
- Fuses on the primary and secondary transformer
- Motor protection PTC.

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	3.5
- temperature of loaded products (completely empty machine)	°C	5

The following energy consumption values have been measured:

- 24-h stand-by consumption	Wh	7,632

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, act as follows:

- 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 with the new combination.

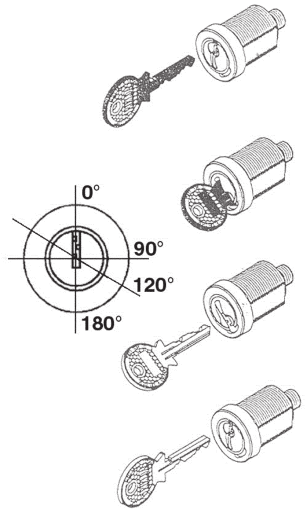

Fig. 3

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.).

FOOD HYGIENE AND SAFETY

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 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 vending machine can only be used to sell and dispense packaged products that do not need refrigeration to be preserved (snacks).
Some models are also arranged to sell and dispense products that need to be refrigerated for preservation (food).

Packaged and refrigerated foodstuffs (food) shall be managed in full compliance with food safety needs.

For all products 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 foodstuffs.
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.

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 highlit by the label "power off before removing the cover" remain live.

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.
The selection keyboard is of a numeric type. To dispense the product, select the number corresponding to the product you wish.

Press key Ⓒ to delete a selection you have reserved.

Key Ⓔ and ⓪ are not available for the user. They are only used for programming.
The machine can have the following standard or optional components:

- Double or single spiral trays (maximum 7)
- Trays configured for dispensing sandwiches
- MULTIMAX belt trays only used for dispensing bottles and cans.
- SOFTVEND pocket accommodating dispensed products and placing them in the dispensing compartment
- Product passage photocells
- Dispensing compartment automatically openable.
- Direct selection keyboard

NOISE LEVEL

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

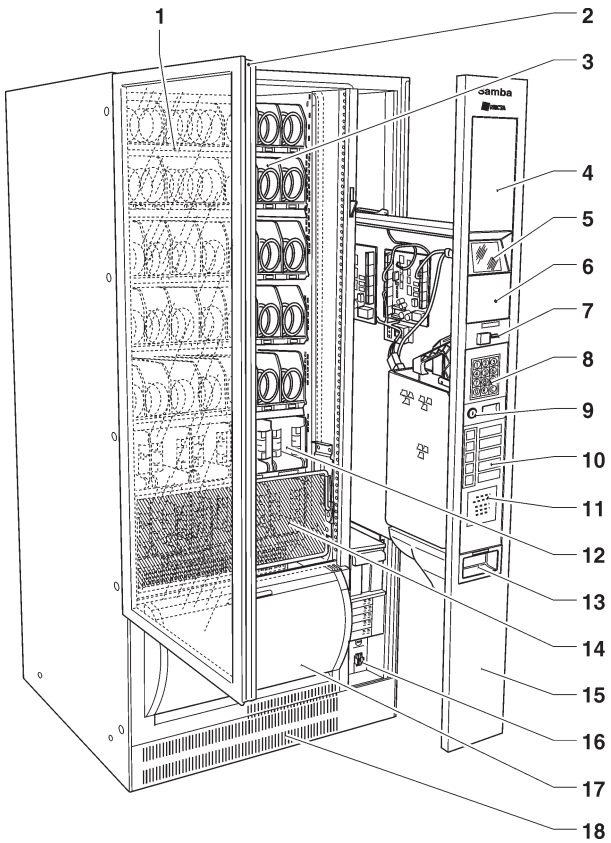

Fig. 4
1- Glassfront
2- Glassfront opening grip
3- Spiral trays
4- Advertising spaces
5- Graphical display
6- Space for the cashless payment module
7- Coin insert and return button
8- Numeric selection keyboard
9- Lock and handle intended to open the slide-in compartment
10- Direct selection keyboard (optional)
11- User communication space
12- MULTIMAX trays (optional)
13- Coin return door
14- SOFTVEND (optional)
15- Slide-in compartment
16- Main switch
17- Dispensing compartment
18- Feet cover

CONFIGURATION OF SPIRAL TRAYS

According to the size of products you wish to dispense, each machine can be fitted with a variable number of dispensing trays (maximum 7), trays and spirals having a different pitch.

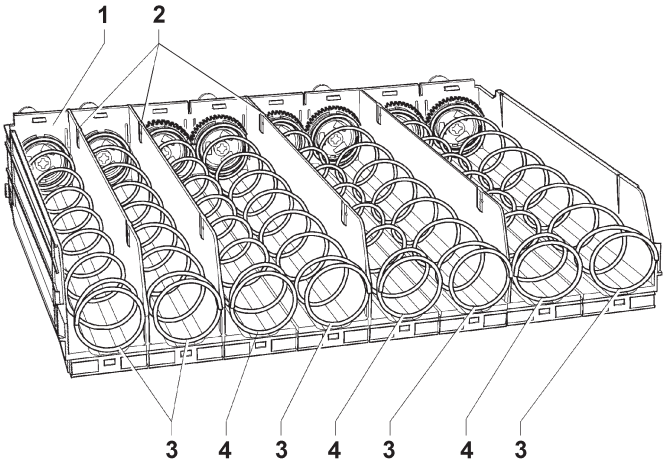

Fig. 5
1- Tray
2- Mobile walls
3- Right-hand spiral
4- Left-hand spiral

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 per tray) for smaller products
The machine can be configured to:

- dispense sticks of candies and alike.
  These compartments can be recognised by the presence of a right-hand spiral complete with a divider (see fig. 6). The divider is intended to double the compartment capacity

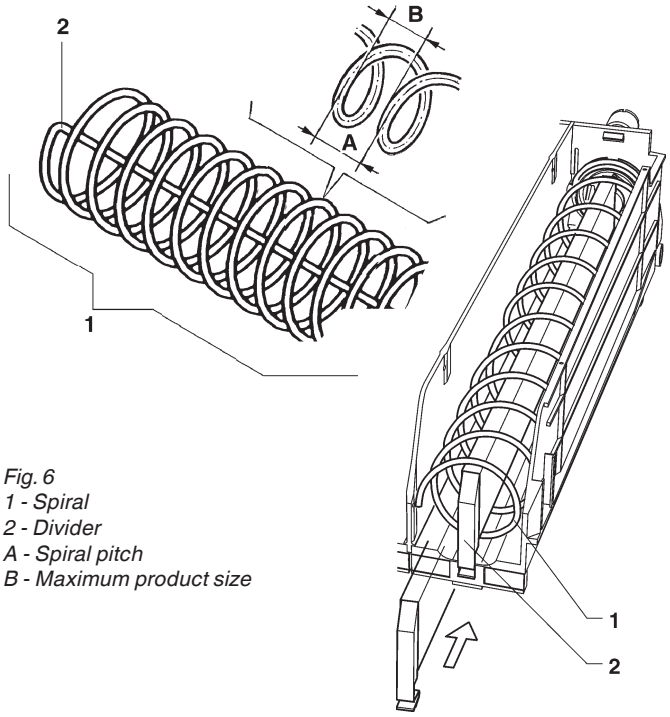

Fig. 6
1 - Spiral
2 - Divider
A - Spiral pitch
B - Maximum product size

- dispense bottles and cans, plastic bottles up to 69 mm in diameter and 0.2l tetrapacks.
  These compartments can be recognised by the presence of a product raised support (see fig. 7)
  Most bottles can be dispensed without any product raised support by loading the bottles up side down so that the cap slides in the tray channel.

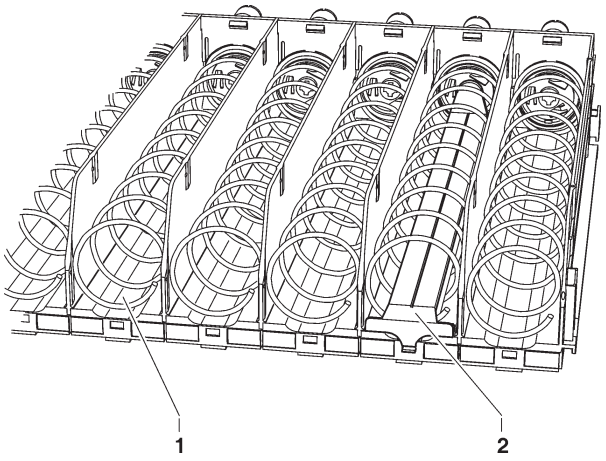

Fig. 7
1- Tray channel
2- Product raised support

- dispense particularly “narrow” products.
  These compartments can be recognised by the presence of a spacer (see fig. 8)

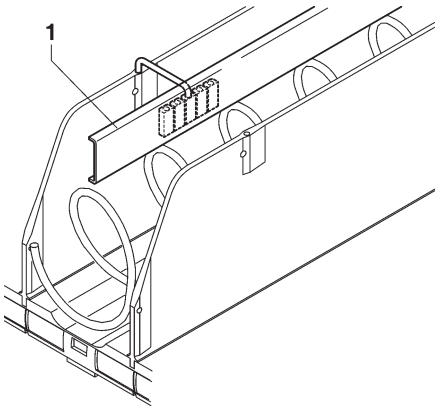

Fig. 8
1- Spacer

-

- dispense sandwiches.
  Sandwich trays are suitable for **dispensing sandwiches only**; these trays can be recognised by the presence of the retainer bridge.
  Sandwich trays are arranged in the machine food area.

Comidas refrigeradas Food product s Prodotti refrigerati

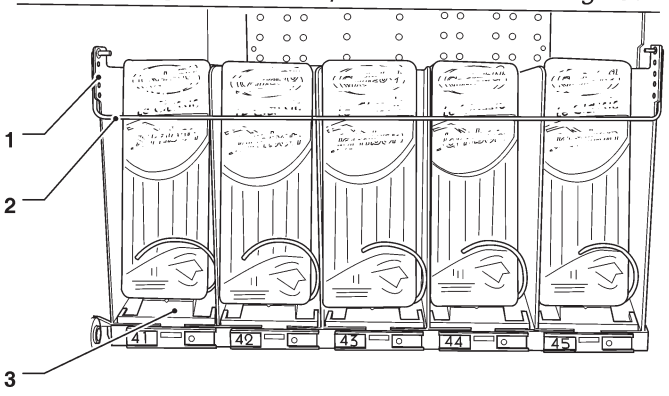

Fig. 9
1- Retainer bridge height regulation holes
2- Retainer bridge
3- Sandwich tray

CONFIGURATION OF MULTIMAX TRAYS

Some models may have belt trays **only used for dispensing bottles and cans.**
Belt trays are composed by 1 single compartment and 4 double compartments:

- a single compartment may include products, the diameter of which lies between 62 and 70mm.
- double compartments may include products, the diameter of which lies between 66 and 70mm.

SINGLE COMPARTMENT

Assemble a spacer for products, the diameter of which is lower than 62mm., in order to arrange and slide products properly.

DOUBLE COMPARTMENTS

PRODUCT SPACER

Assemble a spacer for products, the diameter of which is lower than 65mm., in order to arrange and slide products properly.
The spacer is coupled into the holes on the left wall of the compartments (see fig. 10) by means of brackets; every single hole (A,B or C) will correspond to a different size range of products used to fill the compartment.

Fastening hole of the spacer	Diameter of dispensable products
A	from 53 to 56mm
B	from 57 to 61mm
C	from 62 to 65mm

Attention !!!

It is important to know for which product and how the compartment has been configured to load it properly.

The table above has got a general character. It is intended to specify the settings the manufacturer has experimentally established for some of the most common types of products.

DEVIATORS

- Double compartments, **SOFTVEND available**, have a product deviator (see figure 10, point 6) to allow the products to properly fall into the SOFTVEND pocket.
- Double compartments, **SOFTVEND not available and only if suitable for dispensing 33cl cans**, have a specific deviator (see figure 10, point 7).

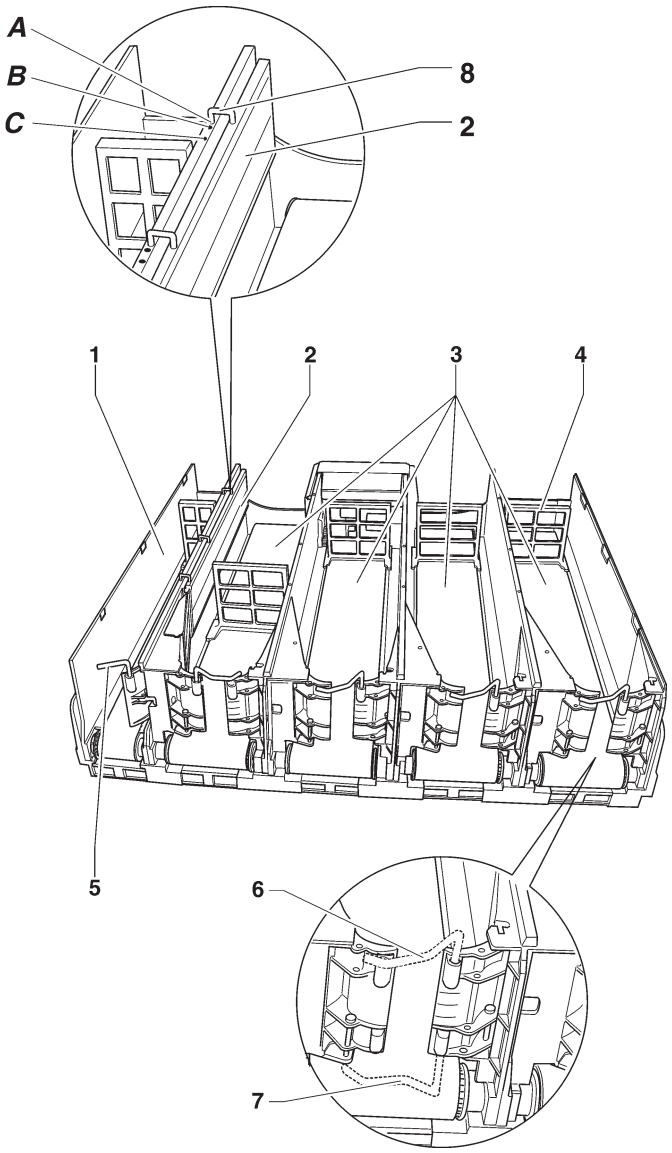

fig. 10
1- Single compartment
2- Product spacer (for some types of products only)
3- Double compartments
4- Product anti-turn-over partition
5- Vandal-proof bracket (as a standard)
6- Product deviator (as an alternative to can deviator)
7- 33cl can deviator (as an alternative to product deviator)
8- Spacer assembly brackets

SOFTVEND

SOFTVEND is available in some models only.
In its home position, SOFTVEND is generally as high as the lower tray.
To load trays, act as follows:

- Turn the key intended to open the slide-in compartment and wait for SOFTVEND to reach about half height.
- Open the slide-in compartment and the glassfront.
- Extract the lower trays and load them.
- Lower down SOFTVEND to load the other trays.
- As soon as you power on the machine, SOFTVEND will automatically reach the initial position.

Attention !!!

However, you can operate SOFTVEND manually. To avoid any misalignment during the manual movement, never forget to use both handles.

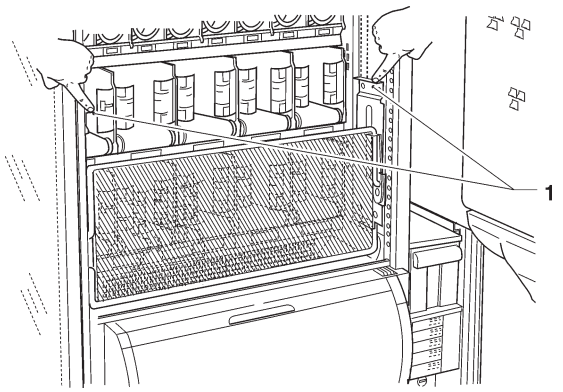

fig. 11
1- Handles

LOADING SPIRAL TRAYS

SNACK PRODUCTS

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

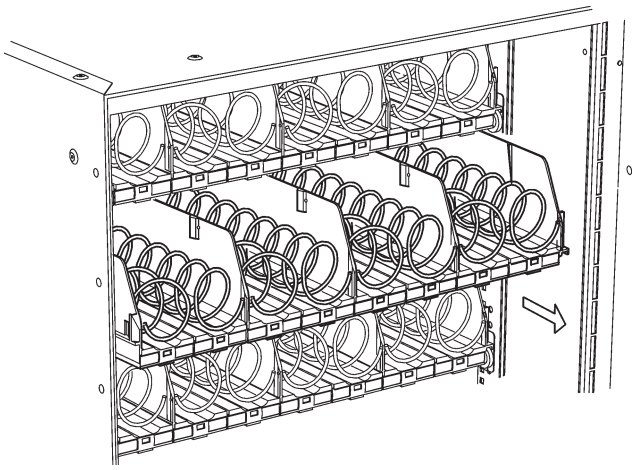

Fig. 12

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

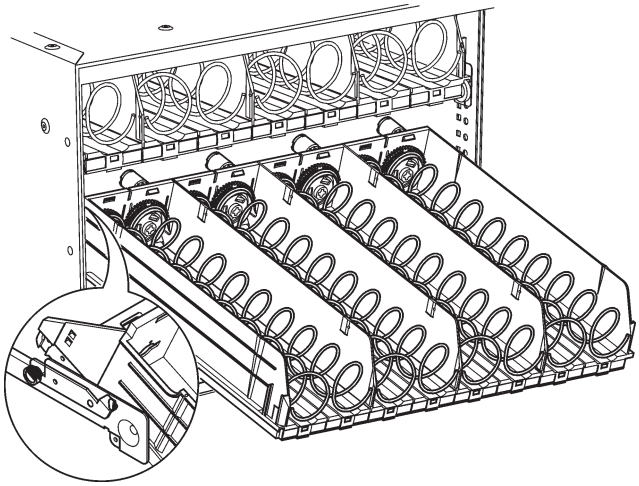

Fig. 13

- Load the products from the outside to the inside. Avoid inserting any package at a temperature above 30°C. 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. **All products shall be easily insertable between the spirals. Avoid inserting any object that is too large.**

- 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.

Particularly “narrow” products can be dispensed only by using the special spacer (see fig. 14)

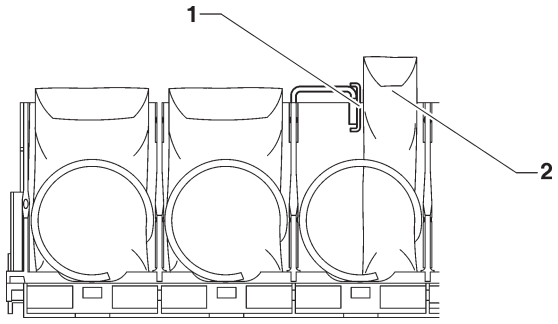

Fig. 14
1- Product spacer
2- “Narrow” products

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. 7).

Place the products on the lower trays to avoid any damage when falling down.

Avoid inserting any package at a temperature above 30°C. Make sure that bottles and cans can be easily inserted between the spirals. Avoid inserting any object that is too large.

FOOD PRODUCTS

The food area can be recognised by the plates on the dividing tray.
If the machine is arranged to dispense refrigerated products, load them in the “food” area of the machine. The “food” area can be recognised by the presence of plates on dividing trays.

If you power on the machine after a period of inactivity, wait until you reach the steady temperature (pull down up to 3 hours) before introducing any refrigerated product.

If the message “Safety temperature exceeded” appears and food selections are put out of order, **the refrigerated foodstuffs in the machine shall be considered as non-usable and therefore removed.**
In this case, power on the machine and wait until you reach the steady temperature before introducing any refrigerated product.

Attention !!!

Before loading, make sure that the “food” area temperature is below 4°C.

Avoid introducing any product at a temperature above 4°C

Sandwiches shall be loaded in the tray that can be recognised by the retainer bridge (see fig. 15)

All loading operations shall be carried out as quickly as possible (about 10 min.) to prevent the “food” area temperature from exceeding 7°C.

LOADING SANDWICH TRAYS

Some models can have sandwich trays, **specifically conceived for dispensing sandwiches ONLY.**
Sandwiches shall be loaded into the machine food area. This area can be recognised by the plates on the dividing tray.
To dispense sandwiches, it is necessary to provide the dispenser with the tray that can be recognised by the retainer bridge.
Make sure that the bridge is inserted into the highest hole and the spiral end set to 10 (see the figure here below).
Sandwiches shall be loaded with the lower edge being placed before the spiral.

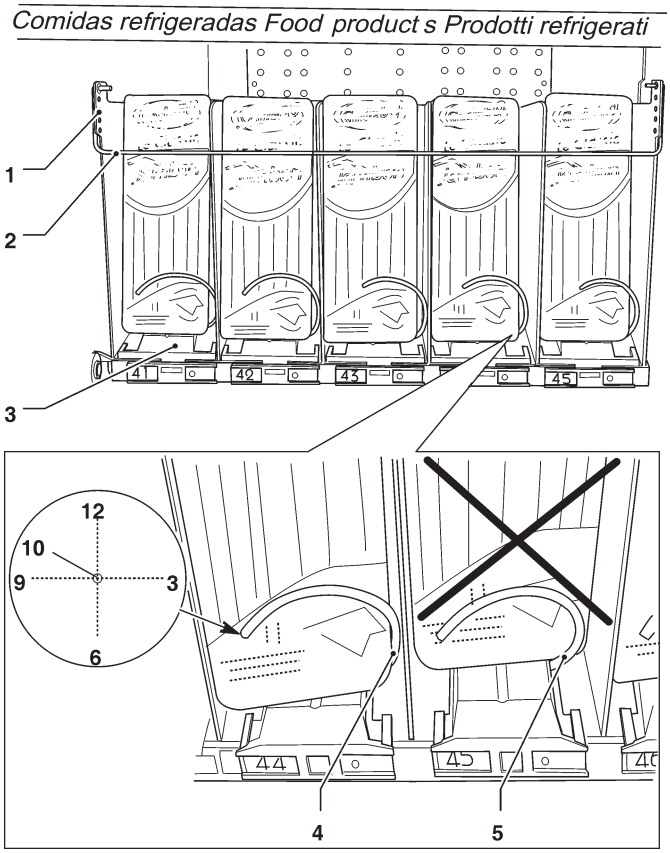

Fig. 15
1- Bridge regulation holes
2- Retainer bridge
3- Tray for sandwiches
4- Right sandwich loading
5- False sandwich loading

Attention !!!

Before loading any sandwich, make sure that the "food" area temperature is below 4°C.

LOADING MULTIMAX TRAYS

Some models can have MULTIMAX trays **specifically used for dispensing bottles and cans ONLY**. It is recommended to use MULTIMAX trays for these types of products since they can provide for greater capacity than spiral trays.
To load the compartments, act as follows:

- extract one tray at a time: lift and pull it slightly from the base.
  Attention: to extract, avoid seizing the tray by the dispensing system (jaws and product deviator), but use the supplied handle by coupling it beneath the tray.
- push the anti-turn-over partition to the bottom of the compartment
- load the bottles or cans vertically: start from the bottom of the compartment to reach the jaws
  The product label must be turned to the glassfront so that the product can be recognised.
  Cans and bottles shall be easily insertable into the compartments. Prevent the products from getting stuck.
- place the anti-turn-down partition near the products to prevent them from falling down during the belt operation.
- reinsert the tray into the machine and close the door

Some products are dispensed by using a special spacer only, according to the size and type of compartment (either single or double) (see the paragraph "configuration of MULTIMAX trays")

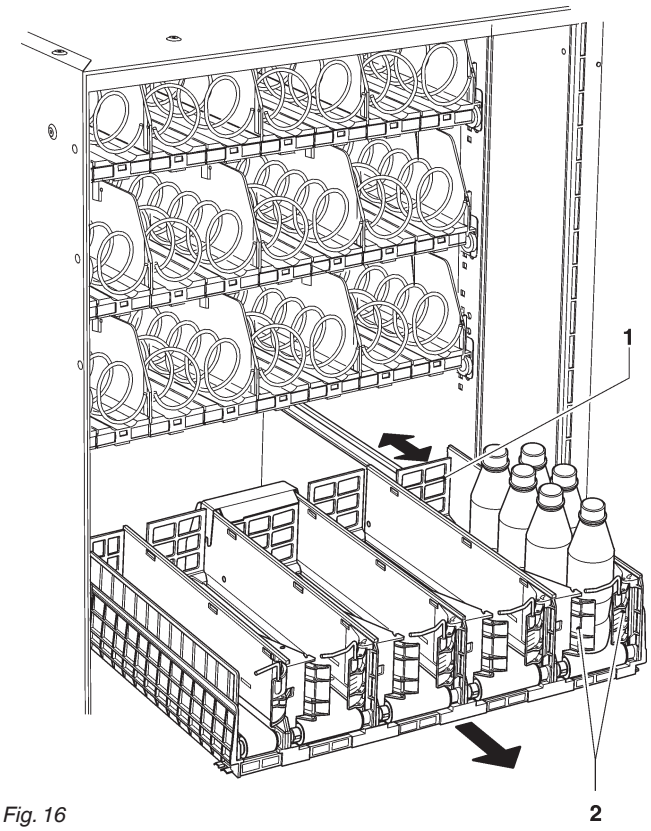

Fig. 16
1- Product anti-turn-over partition
2- Jaws

POWER ON

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

- check the number of trays you have actually connected
- check whether the dispensing compartment or, as an alternative, the motorised compartment is locked (if available)
- move the belts forwards to put the products close to the release jaws after having closed the jaws (the models with MULTIMAX trays only)
- initialise SOFTVEND in the initial position (models with SOFTVEND only)

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

The cooling unit is dimensioned to guarantee 7°C at the bottom of the box not later than 45 minutes after having completed the load cycle if the machine had already achieved its steady state.

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.

OPERATING TEMPERATURE

The machine can only work at a temperature between 5 and 34°C.
The refrigerated box temperature can be regulated between 3.5 and 20 °C.

CLEANING AT REGULAR INTERVALS

Use a lukewarm solution and non-aggressive detergents. Rinse and dry carefully.
To clean metal parts, avoid using any abrasive or corrosive detergent as well as chips, steel wool, brushes or common steel scrapers.

Attention !!!

It is anyway forbidden to direct any water jet against the machine

CLEANING THE VENTILATION GRIDS OF THE COOLING SYSTEM

Clean the ventilation grid of the cooling system at least every 30 days by using a vacuum-cleaner or compressed air. Act as follows:

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

Attention!!!

It is forbidden to direct any water jet against the machine.

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.

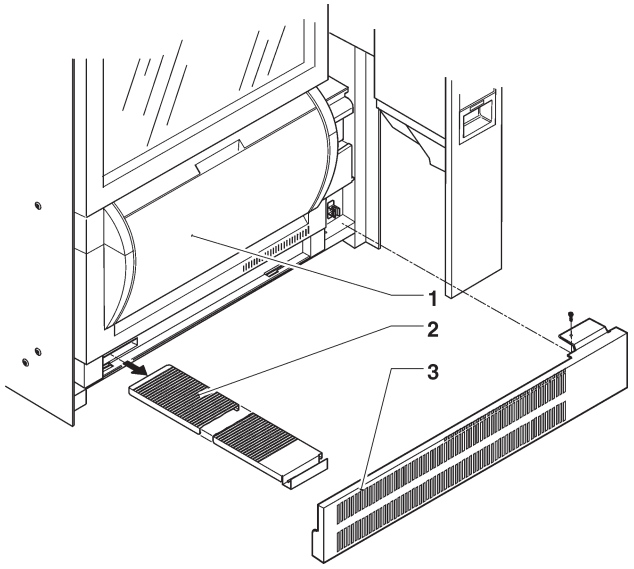

Fig. 17
1- Dispensing compartment
2- Aspiration grid
3- Feet cover

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.

The machine is not suitable for outdoor installation, it must be installed in a dry room at a temperature between 5° and 34°C.

The relative humidity shall not exceed 65%

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

The machine shall be arranged in such a way that the maximum inclination is not exceeding 2°. If necessary, level it by means of the feet.

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 highlit 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 installation 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.

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

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:

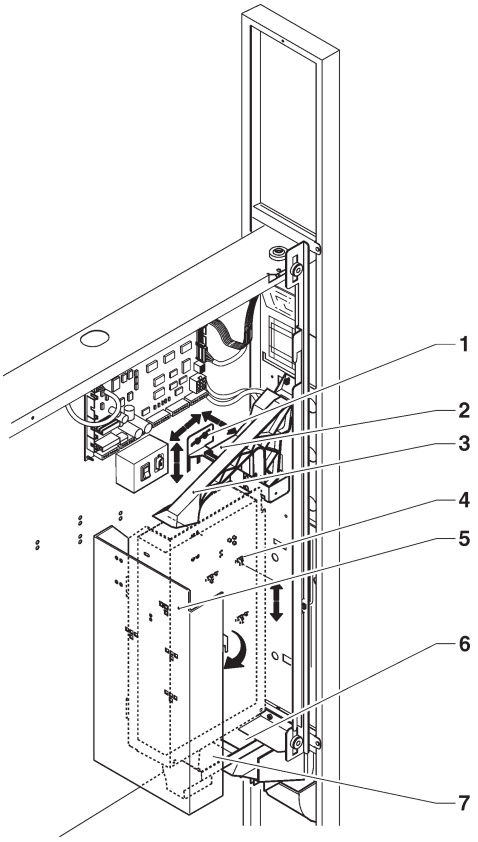

Fig 18
1- Coin slide fastening screw
2- Coin slide
3- Selector opening lever
4- Coin mechanism fastening holes
5- Openable coin mechanism support
6- Coin return slide
7- Coin insert slide

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. 19) 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.

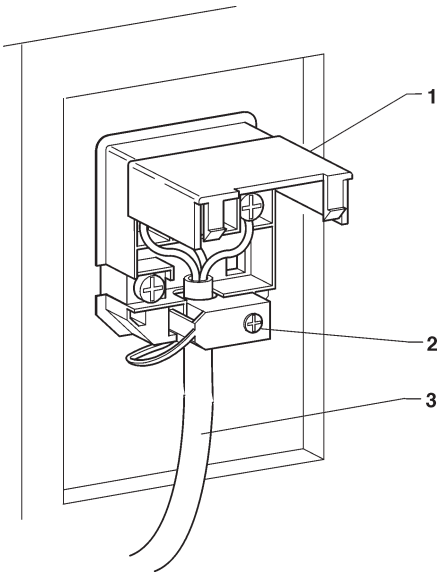

Fig. 19
1- Lift cover
2- Cable clamp
3- Mains cable

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

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.

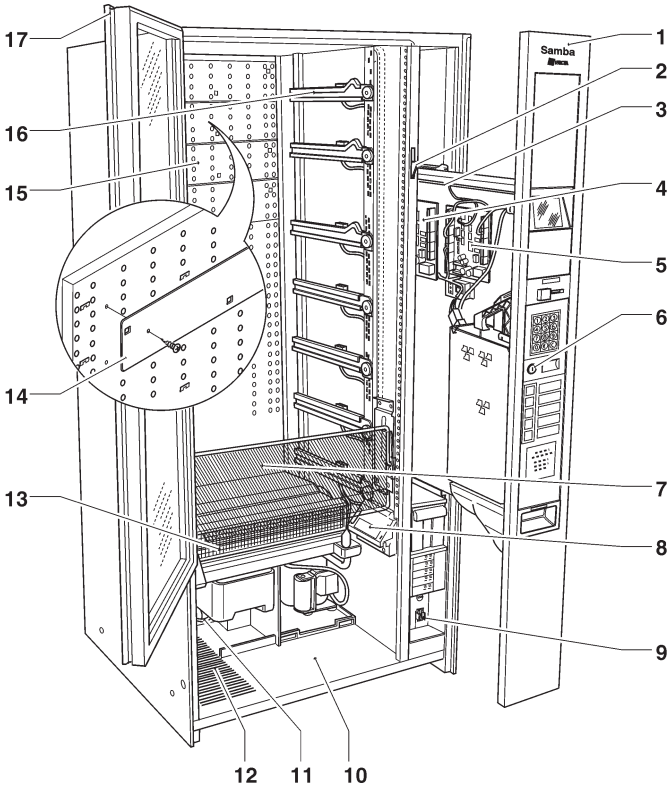

Fig. 20
1- Slide-in compartment
2- SOFTVEND safety actuator
3- Current regulator board
4- Actuation board
5- CPU board
6- Lock and grip of the slide-in compartment
7- SOFTVEND (optional)
8- Photocells (optional)
9- Main switch
10- Housing of the product dispensing compartment
11- Cooling unit condenser
12- Ventilation grid
13- Cooling unit evaporator
14- Removable shutters of the cold air grid
15- Cold air distribution grids
16- Tray guides
17- 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.
The cool air from the cooling unit is dispensed by the grid at the back of the box.
The machine is supplied with shutters that can customise temperature stratification in the box (max. 3 areas at various temperatures).
The stratification level of the refrigerated box temperature will vary according to the number and position of shutters.

UNIFORM TEMPERATURE

One single temperature in the whole box: cool air distribution grid completely open.

STRATIFIED TEMPERATURE

Maximum 3 areas at various temperatures (0-4°C for “food” products, 5-8°C for food drinks originally sealed, 8-16°C for snacks).
To change the temperature stratification level, refer to the chapter about maintenance.

TEMPERATURE REGULATION

The refrigerated box temperature can be set between 3.5°C and 20°C by means of a software programme.

DEFROST

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

FIRST POWER ON

Whenever you power on the machine, the electronics will check as follows before setting the machine at work:

- check the number of trays you have actually connected with the machine
- move the belts forwards after having closed the jaws (the models with MULTIMAX trays only)
- initialise SOFTVEND (the models with SOFTVEND only)

The display will show the following in sequence:

- software release

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- 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.

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.

Attention !!!

Wait for the steady-state temperature to be reached (pull down up to 3 hours) before inserting the products to be dispensed.

The manufacturer disclaims all responsibility for any damage caused by the inobservance of the precaution mentioned above

OPERATION

SPIRAL TRAYS

To dispense a product included in a spiral compartment:

- the motor intended to rotate the spiral is activated.
- the spiral will push the product forwards and let it drop from the tray.

MULTIMAX TRAYS

Models with MULTIMAX trays only.
To dispense a product included in a belt compartment:

- the corresponding motor is activated to operate 2 or 3 belts at the same time and to drag the products forwards. The jaws in a closing position will retain the products
- after a while, the jaws will open and accompany the product you have selected until they let it drop into the dispensing compartment
- after having released the product, the belts will move slightly backwards to let the products settle in the compartment and help the jaws to close
- the jaws will close once again and the belts move forwards to place the products near the release jaws.

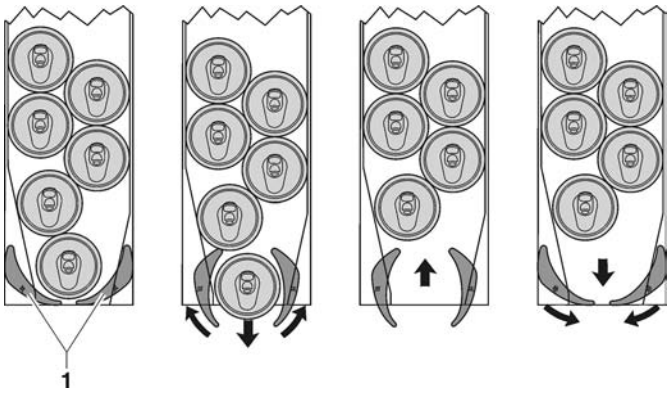


fig. 21
1- Jaws

DISPENSING COMPARTMENT LOCK

Some models are complete with a device intended to lock the dispensing compartment that is electrically released after a dispensing cycle (see the compartment lock parameters) to open the compartment manually to take the dispensed product.
The dispensing compartment lock is an alternative to the motorised compartment.
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 lock device manually.

SOFTVEND

Available for some models only.
Whenever you request for a selection, SOFTVEND will reach the height of the tray dispensing the product you have required.
The product falling into the SOFTVEND pocket will be placed in the dispensing compartment.
The control electronics of the machine will initialise SOFTVEND whenever you power on the machine.

Attention !!!

If the glassfront is open, SOFTVEND can not be electrically handled for safety reasons. However, you can operate SOFTVEND manually. To avoid any misalignment during the manual movement, never forget to use both handles.

DISPENSING COMPARTMENT AUTOMATICALLY OPENABLE

After having dispensed the product, the compartment opens automatically and it remains open for a well-defined time interval to enable the user to take the product. After closing, the compartment is not locked at once, but it can be manually opened for a settable time interval.

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, Flash, 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 product 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

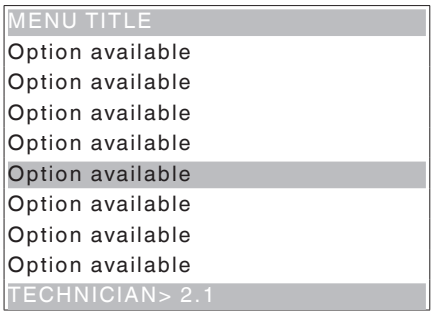
The operations you can perform can modify operation cycles. Therefore, they must be carried out by people having a specific knowledge of the machine in terms of electrical safety and sanitary rules.

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 highlit on the first line.

followed by all available options.

- The line, on which the cursor is active, is highlit.

- 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 summary tables in the appendix to this manual.

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, 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, where required, or it writes the value 8 in case of entry of a number.

ENTER KEY Ⓔ:

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

EXIT KEY Ⓒ:

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

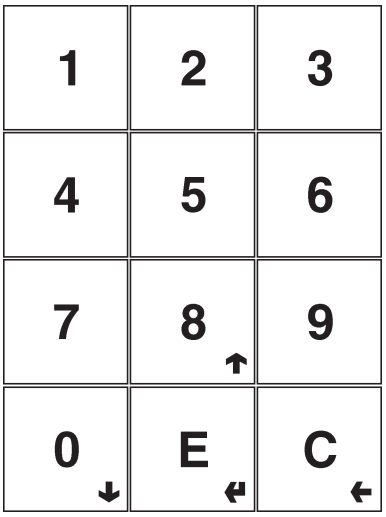


Fig. 22

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.
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.

POWER ON

Whenever you power on the machine, the display will show the software release number on the machine.

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TOTAL VENDS: xxxxxx

You can programme the machine to display the number of selections you have made for some seconds.
The machine is set to the normal operation mode after some seconds. The display will show a message requiring the user to select a product.

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 message requiring the user to select a product.

SELECT A PRODUCT
Temperature= xx°C

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.

SELECT A NUMBER ##

Credit
0.50€

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.

SERVE YOURSELF

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

SELECTION NOT AVAILABLE
"failure name"

FILLER MENU

Press the programming button on the machine door 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.

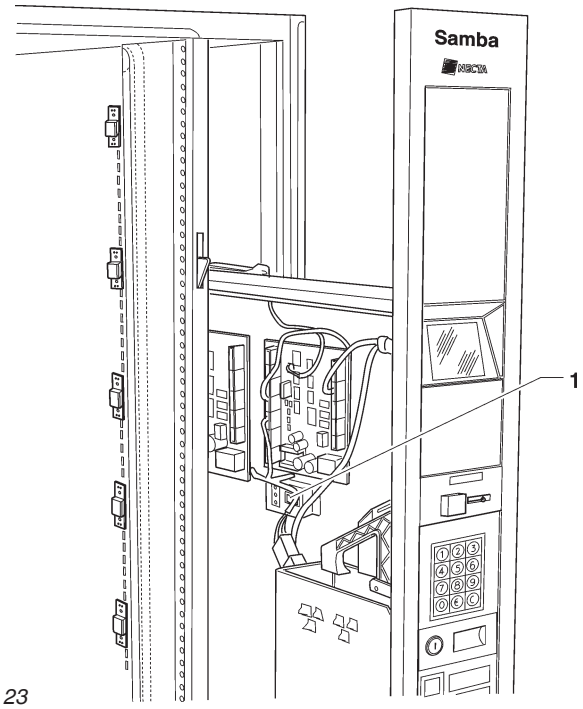


Fig. 23
1- Programming button

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
Print statistics
Print relative statistics
Display statistics
Display relative statistics
Delete relative statistics

FILL> X.X

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 by band,
3 - failure counter
4 - coin mechanism data
5 - photocell error counters
6 - motor errors
7 - safety temperature exceeded (models with food management enabled only)

RELATIVE

1 - counter by selection;
2 - counter by band,
3 - failure counter
4 - coin mechanism data
5 - photocell error counters
6 - motor errors
7 - safety temperature exceeded (models with food management enabled only)

The machine code, the printing date and time, the software release, the manager code and the installation date 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 by band,
3 - failure counter
4 - coin mechanism data
5 - photocell error counters
6 - motor errors
7 - safety temperature exceeded (models with food management enabled only)

relative counters

1 - counter by selection;
2 - counter by band,
3 - failure counter
4 - coin mechanism data
5 - photocell error counters
6 - motor errors
7 - safety temperature exceeded (models with food management enabled only)

DELETE

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

- selections
- failures
- coin mechanism errors
- photocell errors
- motor errors
- temperature exceeded

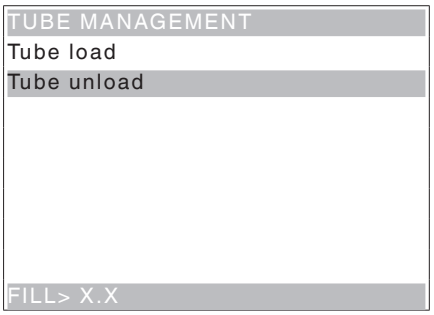
Press the Enter key ↵ to display the blinking message: “Do you confirm?”
Press the Enter key ↵ to reset the statistics. The display will show the “Running” message during the operation to reset the statistics.

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.



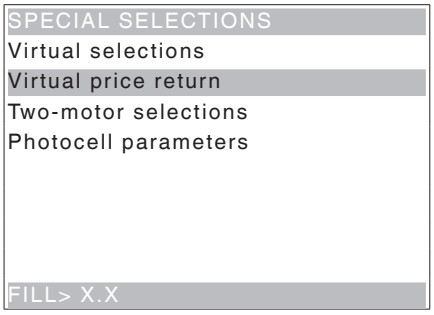
LOAD THE TUBES

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



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.

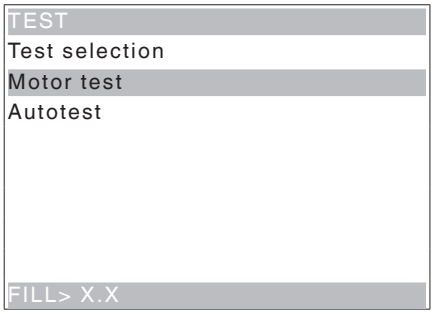
DETECTION OF THE DISPENSING CYCLE

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.

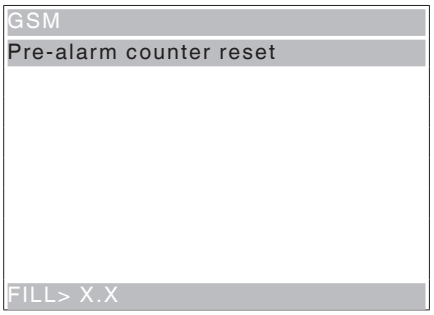
AUTOTEST

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 selection 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.
- **Lighting:** to check the operation of the devices intended to illuminate the glassfront.
  Attention !!!
  Avoid directly looking at any source of light.

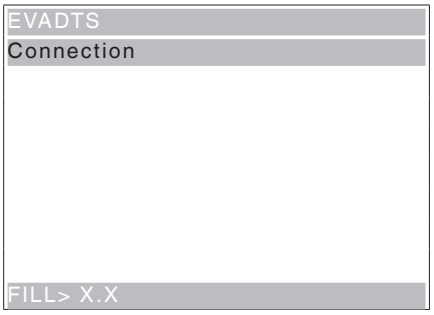
GSM

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 this function to reset the counters intended to manage prealarms.



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.

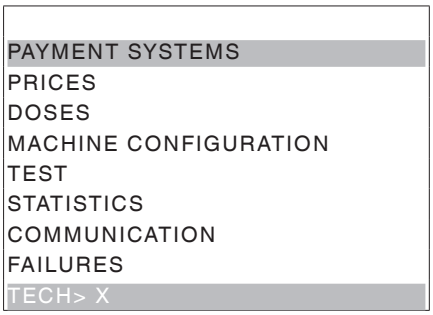


TECHNICIAN MENU

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.

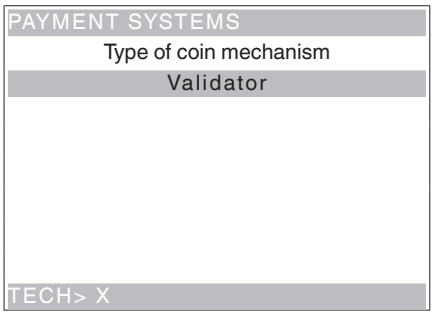
Notes:

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

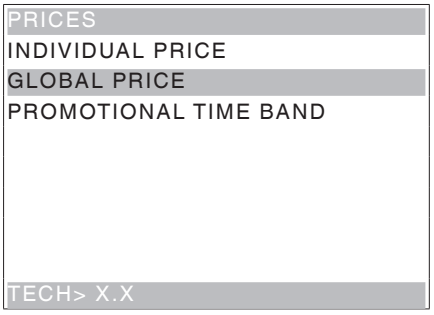
This function is intended to accept cashless payment systems (key or card) or not if the cashless system credit is not defined.

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

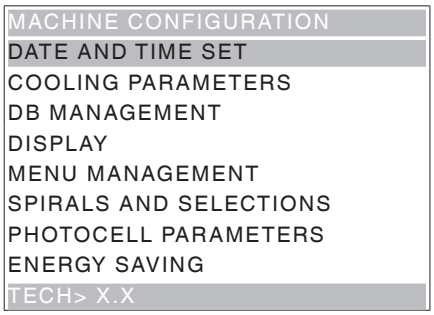
These systems are intended to establish whether to use the 4 price lists at the same time or to use two alternative ranges according to the time band you have set up.
If you do not use the time band, you can manage not only the standard price list, but also three further price lists according to the 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 3.5°C to 20°C) during the operation.
The default temperature varies according to whether the “food management” parameter of the machine is enabled or not:

- ON: default temperature 3.5°C

- OFF. default temperature 8°C

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.

FOOD MANAGEMENT

The machine is arranged to manage the distribution of refrigerated foodstuffs.
The function checks the trays where to provide for control, the safety temperature of trays (4°C by default) and the time required to reach the temperature (pulldown, 45 minutes by default).
Use this function (enabled or not according to the machine layout) to activate the safety temperature control and to define the range of trays where to provide for control.
The sale of food products is locked in the following cases:

- In normal operation mode, the box temperature exceeds the threshold value for over 15 minutes.

- As soon as you power on the machine and without having opened the door before, the box temperature exceeds the safety value.

- After having closed the door, the temperature set in the box is not reached after 45-minute operation; at the expiry of this time interval, the delivery of food products is locked.

If you deactivate the function, you can no longer perform any check and you can set the box temperature between 5°C and 20°C on all trays.

TEMPERATURE RECORD

The internal temperature is stored every 10 minutes. Use this function to read the date, time and temperature you have recorded.

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

SAVE MODIFIED DB

To save the current configuration of the machine. This function is of use if you customise (e.g. the parameters of selections) with respect to factory settings.

RESTORE MODIFIED DB

To restore the machine configuration you have customised and saved before by means of the “Save modified DB” function.
To restore factory settings, initialise the machine.

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.

SECONDARY LANGUAGE

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

USER DISPLAY

To 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

SETTING UP THE PROMOTIONAL MESSAGE

The 4-line message 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).

MENU MANAGEMENT

PASSWORD

It is a 5-digit numeric code you are required to enter to display all “advanced” functions.

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

REDUCED / COMPLETE MENU ENABLE

To enable the request for password function in order to display all “advanced” 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 85).

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 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.
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.

SOFTVEND PARAMETERS

From this group of functions you can define as follows:

- Enable the use of SOFTVEND for every single tray or for every single selection
- Define the SOFTVEND position for every single tray or for every single selection
- The SOFTVEND home position

SOFTVEND POSITION ON TRAY

This function acts on all tray selections.
Use this function to define how far (from 0 to 99 cm) to place SOFTVEND for every single tray.

- 0 is referred to the first useful position of the highest tray surface. The surface of the highest tray is not always corresponding to 0.
- 99 indicates the lowest limit stop (home position by default).

The “Enable delivery” parameter enables the user to place the product in the SOFTVEND pocket in the dispensing compartment.
If “Enable delivery”:

- ON: the product is delivered to the dispensing compartment. Default setup for all trays, except for the seventh one (if available)
- OFF: the product is not delivered. Default setup for the seventh tray only (if available)

SOFTVEND POSITION ON SELECTION

The function acts on one single selection.
Access this function to define as follows:

- the selection where to enable SOFTVEND.
  Use the scrolling keys to scroll the number of selections
- the height (in centimetres from the upper tray) where to place SOFTVEND. 99 indicates the lowest limit stop
- enable or not the product delivery.
  Default setup ON

This function enables the operator to vary the SOFTVEND global setup for every single selection.

SOFTVEND HOME POSITION

To define the SOFTVEND home position.
99 indicates the lowest limit stop.

-

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 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.

DISPENSING COMPARTMENT LOCK PARAMETERS

The dispensing compartment can be fitted (as a standard or as an option) with a lock device.
This function is used for deciding whether to leave the compartment “always free” or 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

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 “Service Interruption” 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 the “Energy saving” time band has tripped.

MACHINE SERIAL NUMBER

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).

LOCATION CODE

Use this function to change the 6-digit numeric code identifying the location of the machine (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.

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..

MINISLAVE RESET

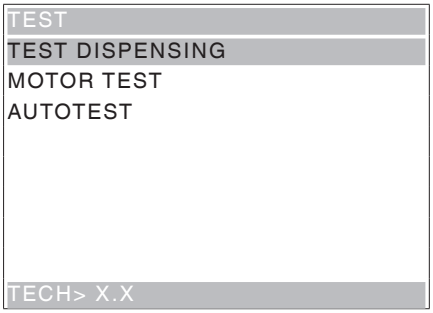
Use this function to restore the default values of a “Slave”.

SLAVE INFORMATION DISPLAY

Use this function to display the information on the slave machine (software release, number of trays, number of dispensing cycles, locked motors...)

TEST

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



TEST DISPENSING

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.

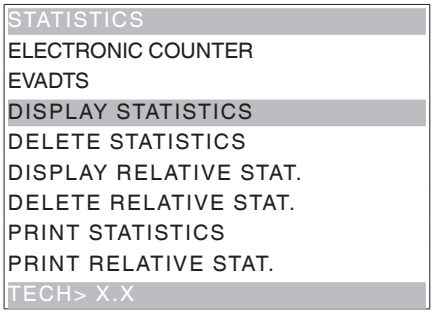
AUTOTEST

A function is implemented in the software to check the 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.
- **Lighting:** to check the operation of the devices intended to illuminate the glassfront.
  Attention !!!
  Avoid directly looking at any source of light.

STATISTICS

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



ELECTRONIC COUNTER

TO DISPLAY THE 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 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.

DATA TRANSMISSION

Activate this function to enable the machine to send the data to a data acquisition device.

TRANSMISSION SPEED (BAUDRATE)

To choose the communication speed of transmission.
Setup by default 2400bps.

CONNECTION

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

DISPLAY STATISTICS

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

1 - counter by single selection;

2 - counter by band;

3 - failure counter;

4 - coin mechanism data.

5 - photocell error counter.

6 - motor error counter

7 - coin mechanism data.

8 - safety temperature exceeded (models with food management enabled only)

DELETE STATISTICS

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

1 - counter by single selection;

2 - counter by band;

3 - failure counter;

4 - coin mechanism data.

5 - photocell error counter.

6 - motor error counter

7 - coin mechanism data.

8 - safety temperature exceeded (models with food management enabled only)

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 by band;

3 - failure counter;

4 - coin mechanism data.

5 - photocell error counter.

6 - motor error counter

7 - coin mechanism data.

8 - safety temperature exceeded (models with food management enabled only)

DELETE RELATIVE STATISTICS

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

1 - counter by single selection;

2 - counter by band;

3 - failure counter;

4 - coin mechanism data.

5 - photocell error counter.

6 - motor error counter

7 - coin mechanism data.

8 - safety temperature exceeded (models with food management enabled only)

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 by band;

3 - failure counter;

4 - coin mechanism data.

5 - photocell error counter.

6 - motor error counter

7 - coin mechanism data.

8 - safety temperature exceeded (models with food management enabled only)

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 by band;

3 - failure counter;

4 - coin mechanism data.

5 - photocell error counter.

6 - motor error counter

7 - coin mechanism data.

8 - safety temperature exceeded (models with food management enabled only)

BDV protocol audit

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

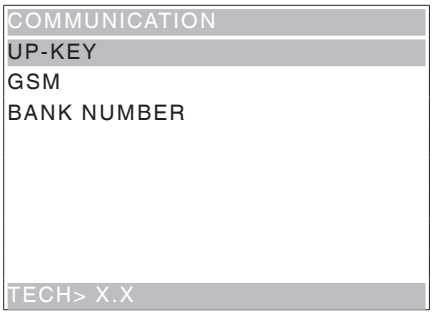
- Aud. 1 Money in the tubes
  money currently available in the change tubes
- Aud. 2 Money to the tubes
  Money conveyed to the change tubes
- Aud. 3 Money to the coin box
  Money conveyed to the coin box
- Aud. 4 Change returned
  Total amount of the money that has been returned.
- Aud. 5 Money dispensed
  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 by means of Upkey and GSM (Global System for Mobile communications).



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.

GSM

The control software can send a signal of faulty machine, “prealarms” or “ending product” via GSM modem after a (programmable) well-defined number of dispensing cycles of a given product.

PIN CODE

Function used to programme the identification code that will be sent to the GSM modem (optional) as soon as the machine is powered on.

THRESHOLD SETUP

Function used to define the number of pieces or grams of powder of a well-defined product, after which to signal an “ending product” prealarm via modem.

COUNTER RESET

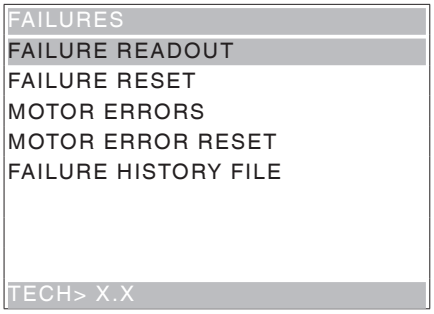
Function used to reset the counters intended to manage pre-alarms.

BANK NUMBER

The bank number (from 1 to 7) is intended to univocally define the machines acting as a “GSM slave”, i.e. sending the data by means of the “master” machine modem. 0 is intended to identify the machine directly connected with the modem, i.e. the “GSM master”, in a bank.

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.

- **Belt errors**: (models with MULTIMAX trays only)
  The machine sets the selections associated with the faulty motor out of service in the following cases:
  - faulty motor or not connected
  - high current absorption (short-circuit)
  - time out (the photocells fail to detect the product passage within a well-defined time interval during the dispensing cycle)
- **Electromagnet errors**: (models with MULTIMAX trays only)
  The machine sets the selection out of service when the control electronics fails to detect the current passage in the electromagnet operating the release jaws.
- **Softvend locked**: (models with SOFTVEND only)
  it is due to a SOFTVEND mechanical lock: the machine is put out of order.
  Power on the machine once again to initialise SOFTVEND once again.
  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.
- **Automatically openable compartment**: due to a failure of the motor intended to open the dispensing compartment.
  The machine is not locked by this failure. You can manually open the compartment to take the products.
- **Safety temperature exceeded:** the temperature of the trays for dispensing food products is 4°C higher than the temperature set for:
  - over 45 minutes after having loaded products.
  - over 15 minutes during the normal operation mode.
  This failure indicates that the preservation of “food” products has been compromised. The sale of “food” products in the vending machine is inhibited.

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. 24).

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 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.

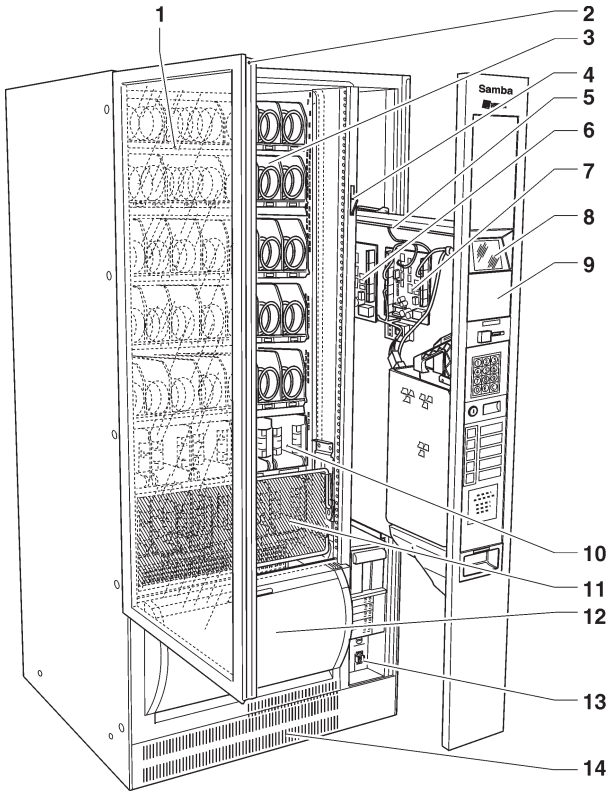


Fig. 24
1- Glassfront
2- Glassfront opening grip
3- Spiral trays
4- SOFTVEND safety actuator
5- Current regulator board
6- Actuation board
7- CPU board
8- Graphical display
9- Pre-arrangement of the cashless payment module
10- MULTIMAX trays
11- SOFTVEND (optional)
12- Dispensing compartment
13- Main switch
14- Feet cover

SPIRAL TRAYS

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 bracket into the hole on the compartment wall.
Couple the shortest part of the bracket 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.

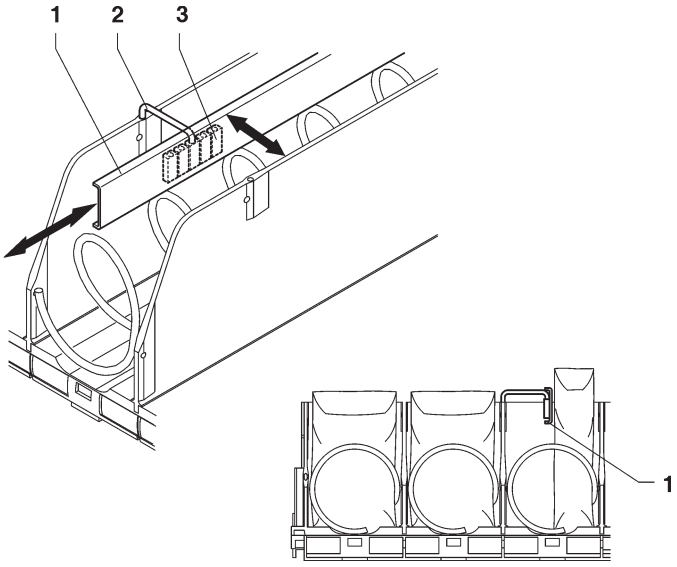


Fig. 25
1- Product spacer
2- Brackets
3- Adjustment notches

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.

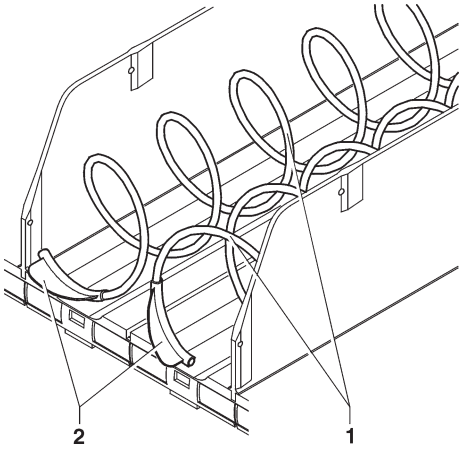


Fig. 26
1- spirals
2- ejectors

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. 27)
- rotating the spiral by 180° instead by 360°

You can also insert a divider between already-existing spirals (see fig. 27)

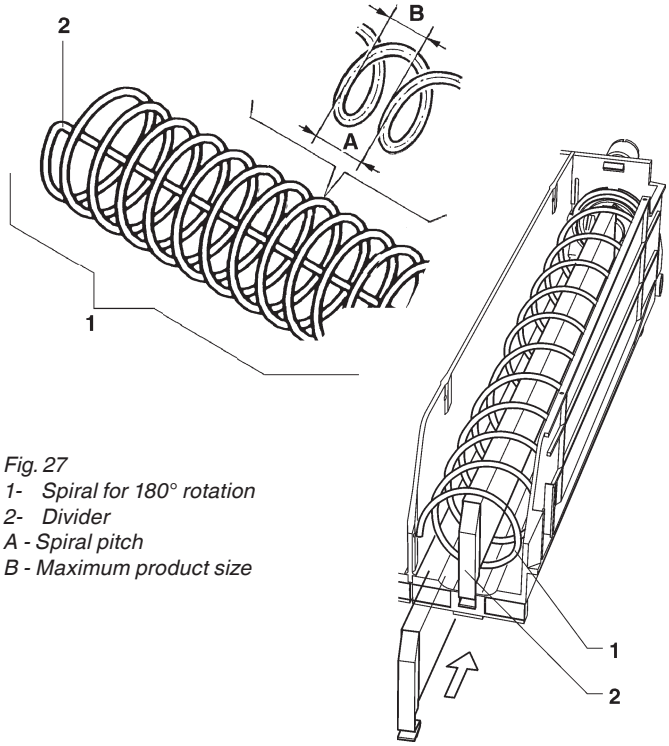


Fig. 27
1- Spiral for 180° rotation
2- Divider
A - Spiral pitch
B - Maximum product size

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. 28.
Most bottles can be dispensed without any product raised support by loading the bottles up side down so that the cap slides in the tray channel.

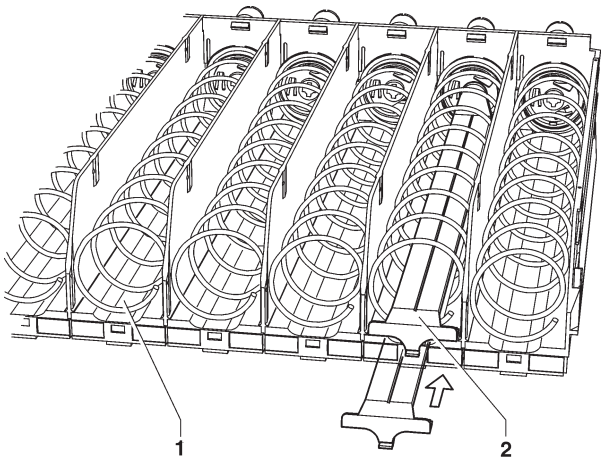


Fig. 28
1- Tray channel
2- Product raised support

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 (1-7), the second digit refers to the spiral number, counting from the left (0-8).
The selection number to which the motor is connected will therefore be formed by the tray number plus the wire code number.
The heat separators (limiting the machine food area) are fastened beneath the trays by using fastening screws

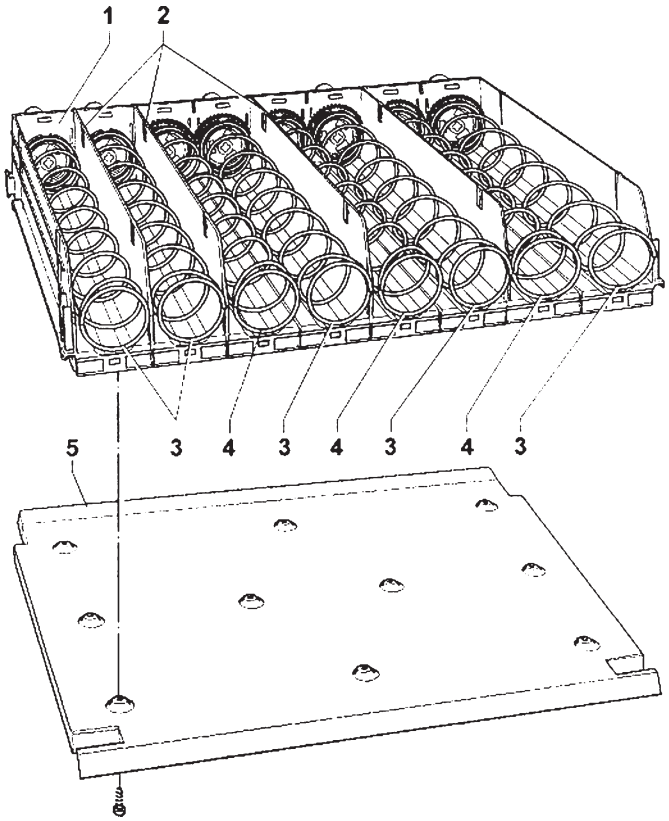


Fig. 30
1- Tray
2- Mobile walls
3- Right spiral
4- Left spiral
5- Heat separator

HEAT SEPARATORS

The heat separators (limiting the machine food area) are fastened beneath the trays by using fastening screws.
If you wish to convert the machine to the distribution of snack products only, remove the heat separator (see fig. 29):

- extract the trays where you have fastened the heat separators and remove all fastening screws.
- remove heat separators.
- disable the “food management” from the technician menu

You can increase or decrease the trays suitable for dispensing “food” products by moving heat separators

REPLACING THE SPIRALS

To replace the spirals, act as follows:

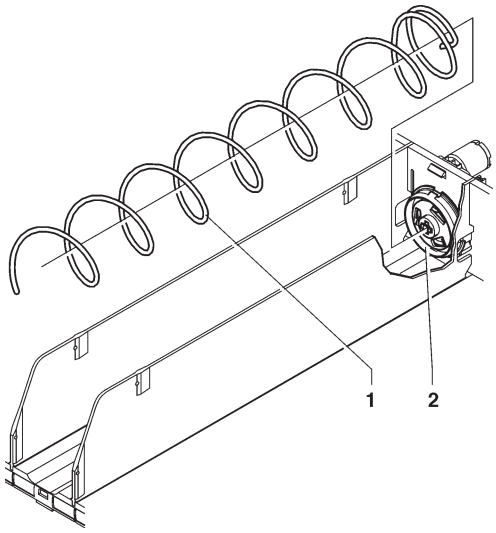
- Extract the tray in question.
- Rotate the spiral in the direction opposite to the ejection rotation while holding the plastic support flange still to separate the two parts.
- Fit the new spiral unit by acting in the opposite direction: Make sure that the spiral is positioned correctly.

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
	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. 31
1- Spiral
2- Plastic flange



SANDWICH TRAYS

MACHINES WITH SOFTVEND.

To prevent the sandwich package from interfering during the SOFTVEND movement, it is recommended to apply the product ejector on the right to the spiral.

- Couple the right ejector on the spiral. Make sure that the shim is directed to the sandwich to prevent the sandwich from protruding from the tray (see figure).

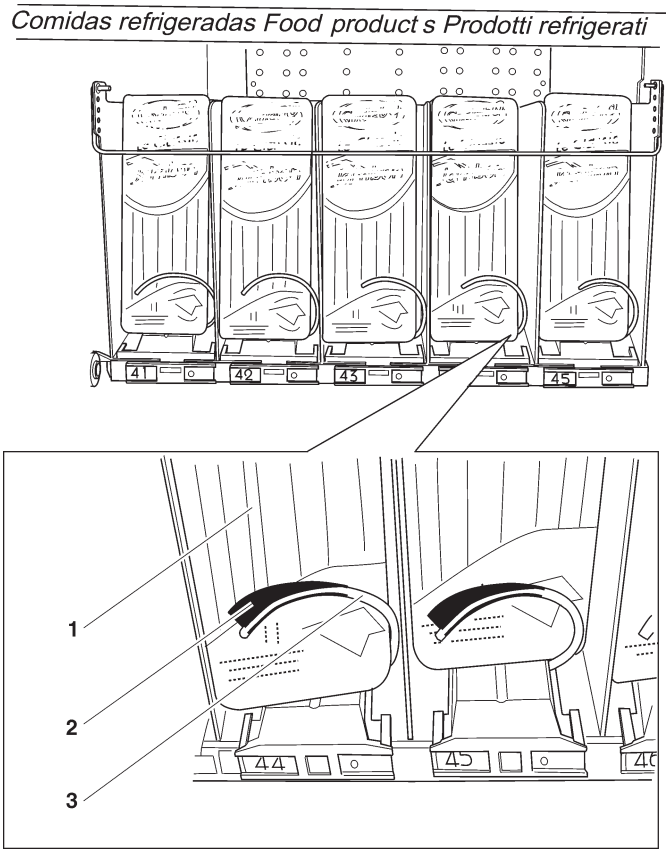


Fig. 29
1- Sandwich
2- Ejector
3- Spiral

MACHINES WITHOUT SOFTVEND.

No ejector is required.

MULTIMAX TRAYS

MULTIMAX trays have a fixed configuration: they are composed by 1 single compartment and 4 double compartments.

- a single compartment may include products, the diameter of which lies between 62 and 70mm.
- double compartments may include products, the diameter of which lies between 66 and 70mm.

To configure the compartments, follow the instructions here below.
These instructions are supplied on the basis of the results the manufacturer has experimentally established for some among the commonest types of product.

However, test every single compartment to be sure it is working properly.

Particularly irregular or insubstantial products might fail to be dispensed automatically.

PRODUCT SPACER

The spacer shall be coupled into the holes on the left wall of the compartment by using the supplied brackets.

SINGLE COMPARTMENT

Assemble a spacer (having a fixed size) for products, the diameter of which is lower than 62mm., in order to arrange and slide products properly**.**

DOUBLE COMPARTMENT

Assemble a spacer for products, the diameter of which is lower than 65mm., in order to arrange and slide products properly.
The spacer is coupled into the holes on the left wall of the compartments (see fig. 32) by means of brackets; every single hole will correspond to a different size range of products used to fill the compartment.

Product diameter	Spacer at
from 53 to 56 mm	24mm
from 57 to 61 mm	16mm
from 62 to 65 mm	8mm

Attention!!!

Every single hole on the compartment wall corresponds to a spacer measure. Pay attention to the front fastening holes that are just the opposite to the fastening holes at the back and in the middle.

Mount the spacer in such a way that it can contain products without blocking them.

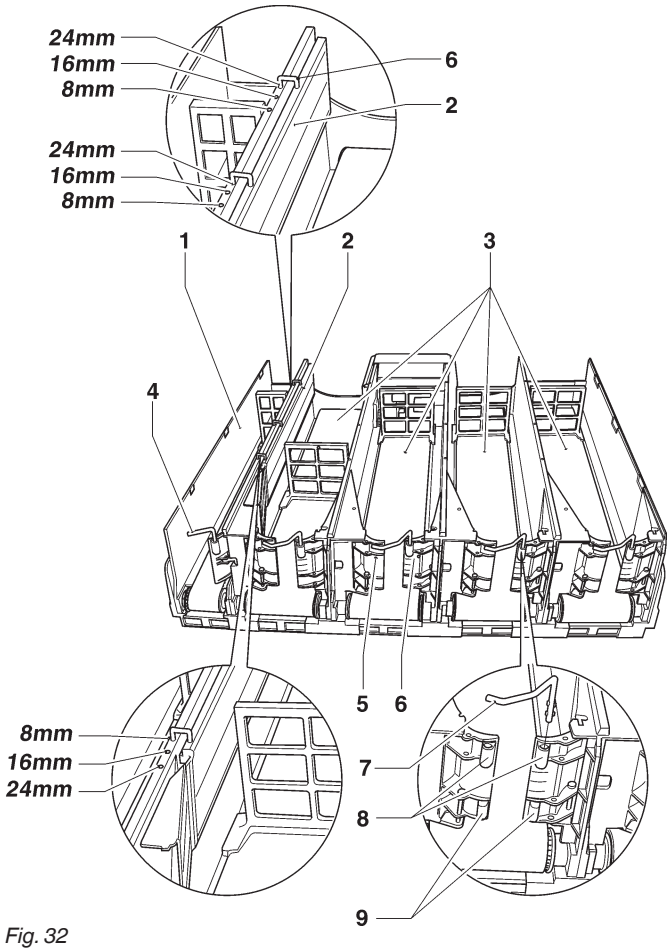


Fig. 32
1- Single compartment
2- Product spacer (optional)
3- Double compartments
4- Vandal-proof bracket (as a standard)
5- Left jaw
6- Right jaw
7- Product deviator
8- Seats for product deviators
9- Seats for 33cl. can deviators
10- Double compartment product deviator (optional)

DEVIATORS

The machine can be supplied with deviators for double compartments; deviators enable the product to fall down properly from the tray.
The use of deviators depends upon the presence or absence of SOFTVEND.
The instructions here below have a general character and they are supplied on the basis of the results the manufacturer has experimentally established for some among the commonest types of product.

PRODUCT DEVIATORS

MACHINE WITH SOFTVEND

It is absolutely necessary to use product deviators to enable the product to fall down properly to the centre of SOFTVEND.
Place the deviators into the corresponding seats (see Fig. 31 point 8) so that the product is pushed to the centre of SOFTVEND when falling down.

- the left product deviator must be mounted **only** on the left jaw of the double compartment on the left (near the single compartment)
- the right product deviator must be mounted on the right jaw of the remaining double compartments, **except for** the double compartment on the left (near the single compartment)

MACHINE WITHOUT SOFTVEND

- Most products can be dispensed without using any deviator (except for 33 cl. cans requiring a specific spacer). However, some products might get stuck between the glassfront and the tray because of their shape and size during the dispensing cycle. In these cases, a product deviator must be used.
  For assembly observe the instructions above

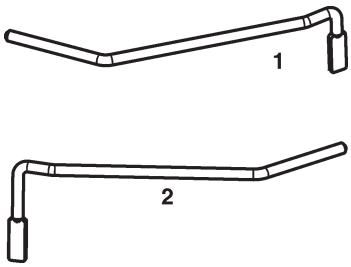


Fig. 33
1- Right product deviator
2- Left product deviator

DEVIATORS FOR 33CL CANS

MACHINE WITH SOFTVEND

No can deviator is required.

MACHINE WITHOUT SOFTVEND

Mount the can deviators into the corresponding seats (see figure 31) so that the can is pushed to the centre of the tray when falling down.

- the right can deviator must be mounted **only** on the right jaw of the double compartment on the right (near the side panel of the machine
- the left can deviator must be mounted on the left jaw of the double compartment, **except for** the double compartment on the right (near the side panel of the machine)

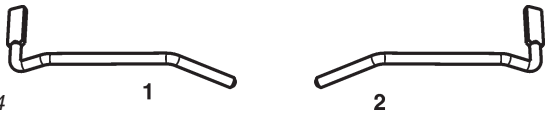


Fig. 34
1- Left can deviator
2- Right can deviator

DEVIATORS FOR "SLIM" CANS

They are deviators specifically conceived for dispensing cans with the following features:

- diameter between 53mm and 57mm
- height between 133mm and 147mm

MACHINE WITH SOFTVEND

To dispense "slim" cans (maximum diameter 57 mm.), use specific deviators for "slim" cans.
These deviators differ from product deviators in the larger bend angle of the area represented by the figure.

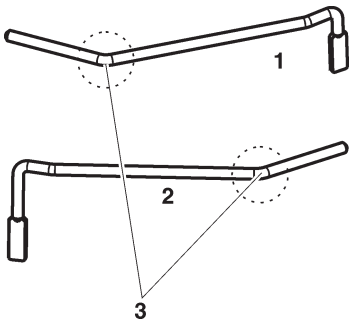


Fig. 33
1- Right product deviator
2- Left product deviator
3- Area with the largest fold angle

Assembly instructions are the same as for product deviators.

MACHINE WITHOUT SOFTVEND

No "slim" can deviator is required.

REMOVING THE TRAYS

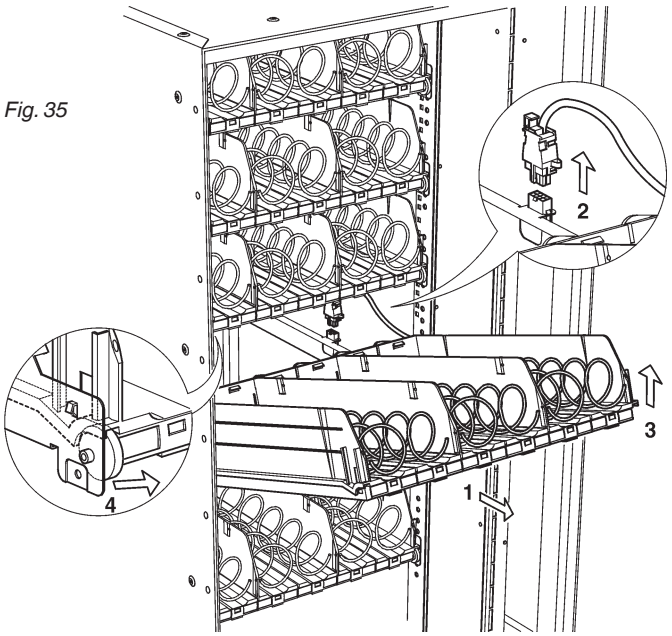
To modify the configuration of trays, remove the trays from the machine. To remove the trays, act as follows:

- extract the tray as far as the limit stop
- detach the electrical connector from the tray
- lift the tray to unlock the retaining slide
- extract the tray completely

Attention !!!

Never seize MULTIMAX trays by the release system (jaws and product deviators).

Fig. 35



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. 36) 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.

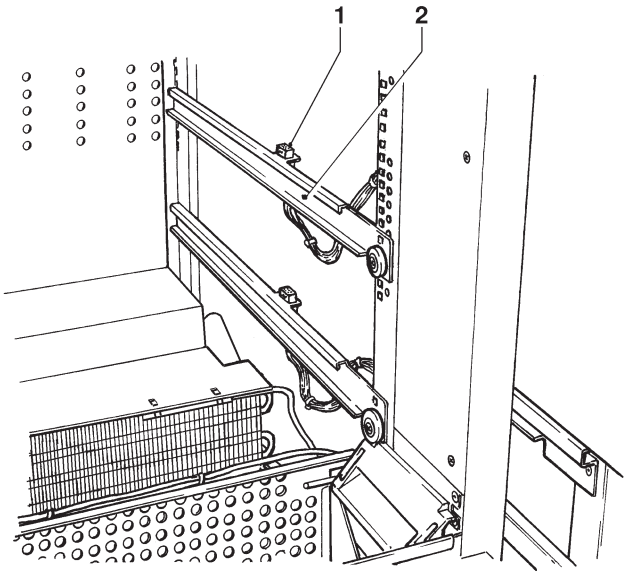


Fig. 36
1- Tray connector
2- Tray guide

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.
MULTIMAX trays can not be reclined.

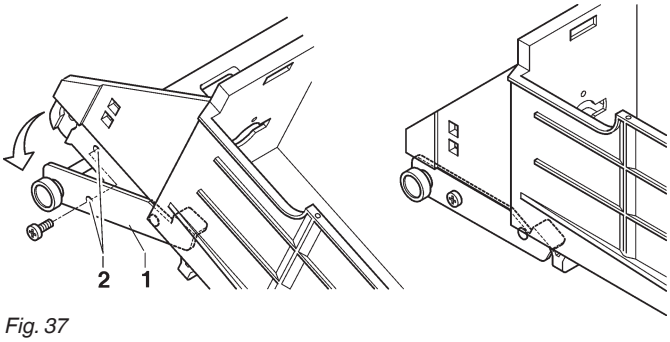


Fig. 37
1- Reclining tray lever
2- Lever locking holes (horizontal trays)

BOX CONFIGURATION

Cool air is dispensed by the grid at the back of the box (behind the trays).
The machine is supplied with shutters intended to vary the stratification level of the box temperature.
Fasten the shutters on the grid intended to dispense cool air by using all eight fastening screws.

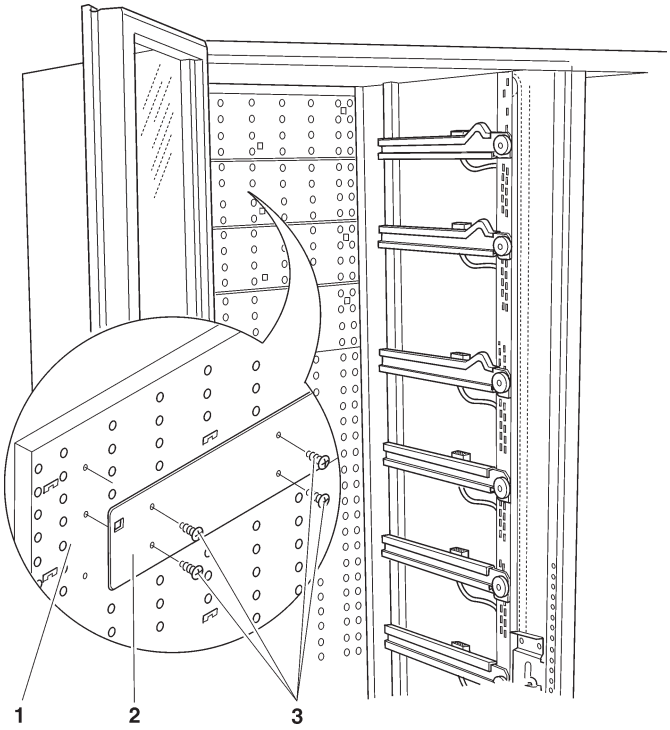


Fig. 38
1- Cold air distribution grid
2- Shutter
3- Shutter fastening screws (8 per shutter)

UNIFORM TEMPERATURE

If you wish to have a uniform temperature in the box (8-16°C or 0-4°C if the food management is active), the grid intended to dispense cool air shall be completely open (never assemble the shutters)

STRATIFIED TEMPERATURE

If the food management is enabled, the machine can have up to 3 areas at various temperatures in its maximum configuration.
The shutters shall be consecutively arranged behind the trays on the grid intended to dispense cool air. The stratification level varies according to the number and position of the shutters.
The table shows the configurations that have been experimentally established by the manufacturer.

3-area configuration

8-16°C	closed grid
0-4°C	open grid
5-8°C	closed grid

2-area configuration

8-16°C	closed grid
0-4°C	open grid

The temperature is software-controlled on the “food” area (0-4°C); the temperature is correspondingly distributed in the remaining areas

BOARD FUNCTIONS

The C.P.U. board, the actuation board and the glassfront lighting board are 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:

- numeric selection keyboard
- direct selection keyboard (if available)
- payment system
- the graphical display
- actuation of the cooling unit and sensors
- glassfront lighting

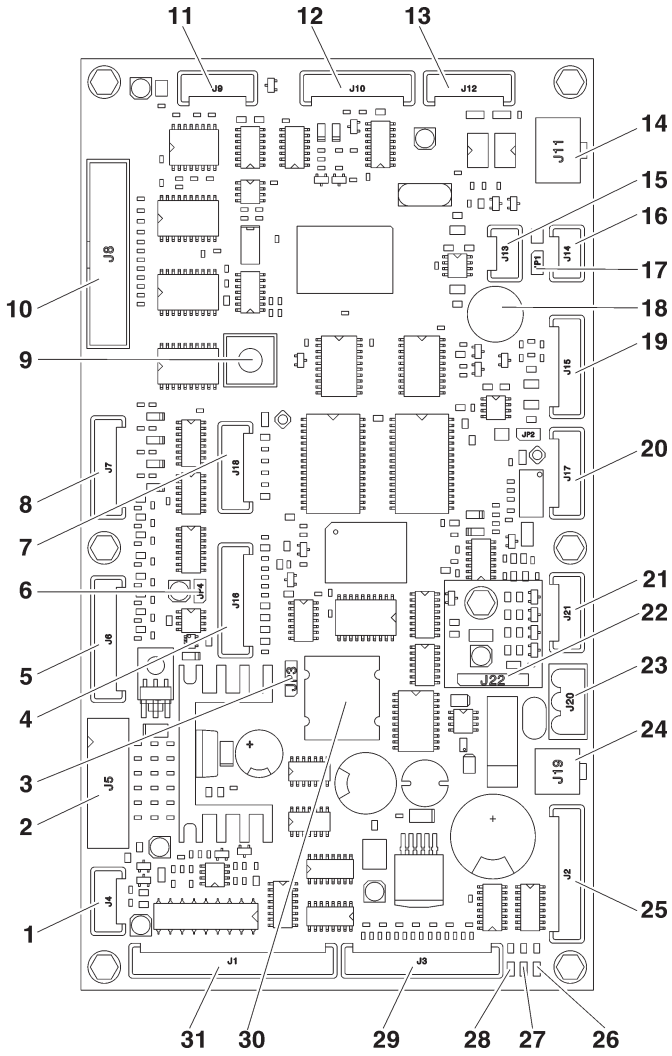


Fig 39

1- Temperature probe
2- Validators
3- Battery jumper (2-3)
4- Not used
5- Not used
6- JP4 WDI jumper (closed)
7- Up-key
8- Selection keyboard
9- Programming button
10- Graphical 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- Not used
20- Not used
21- Not used
22- RAM data expansion (optional)
23- 24Vac (classic only) or 34Vac power supply
24- To the glassfront lighting board
25- Compartment block / lighted path
26- DL3 “RUN” green Led
27- DL2 “RESET” red Led
28- DL1 “+5V” yellow Led
29- To the external programming and OUT/R management button of the cooling unit
30- Battery
31- Spiral motors (in the models with spiral trays only)

ACTUATION BOARD

The actuation board (see fig. 41) is only arranged in the models also complete with belt trays.
This board manages:

- Motors of spiral trays
- Motors of belt trays
- Dispensing compartment lock device
- Motor-driven dispensing compartment (if available)
- SOFTVEND (if available)

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

- the red LED (17) will turn on if the software is reset for any reason whatsoever.
- the green LED (21) will turn on when 5 Vdc is applied;
- - the green LED (22) will turn on when 24 Vdc is applied;

GLASSFRONT LIGHTING BOARD

This board is intended to supply the glassfront lighting LED's with direct current for constant brightness.
The board is arranged in the slide-in compartment of payment systems.

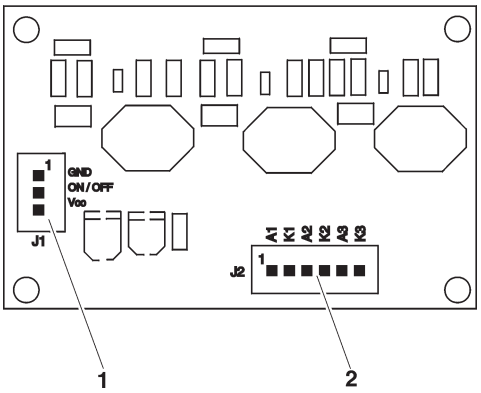


Fig. 40
1- To the CPU board
2- To the lighting LED boards

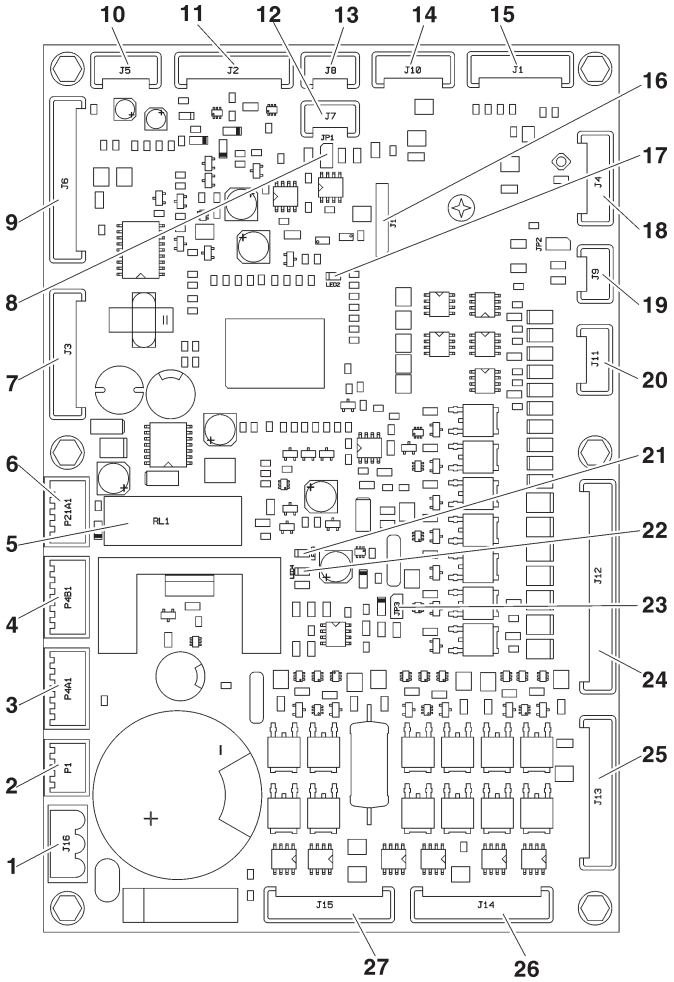


Fig 41
1- 24Vac power supply
2- Not used
3- CPU 34Vdc board power supply
4- CPU 34Vdc board power supply
5- 34Vdc safety relay
6- Safety input relay
7- LED lighted path
8- Can-bus JP1 jumper (closed)
9- Input / output
10- Not used
11- Actuation board programming
12- Can-bus
13- Can-bus
14- Not used
15- Not used
16- Not used
17- DL2 "RESET" red LED
18- Not used
19- Not used
20- M8 and M9 motor
21- DL3 "+5V" green LED
22- DL4 "+24V" green LED
23- JP3 WDI jumper (closed)
24- M0 - M7 spiral motors and 1 - 7 tray
25- Photocells (if available)
26- Motor and compartment input
27- SOFTVEND (if available)

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.

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.

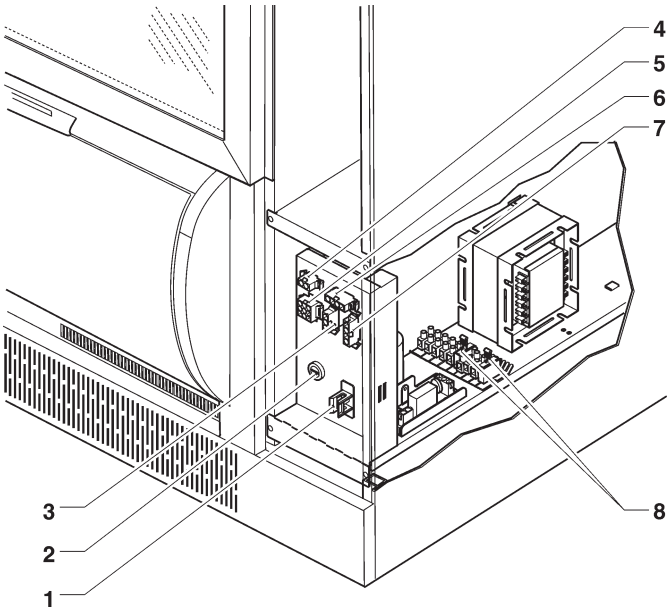


Fig. 42
1- Main switch
2- Line fuse
3- Glassfront frame heating element connector
4- Back heating element connector
5- CPU power supply connector
6- 230V pre-arrangement
7- Motor-driven fan compressor connector
8- Transformer protection fuse

ACCESS TO THE MULTIMAX TRAY ELECTROMAGNETS

The jaws of every single compartment are operated by the respective electromagnets beneath the belt compartments.
To access the electromagnets, act as follows:

- Pull the tray as far as it stops
- Detach the electric connector from the tray
- Lift the tray to release the retaining slide
- Remove the tray from the machine
- Remove the screws intended to fasten the motor protection covers
- Cut the clamps intended to fasten the wiring of electromagnets and motors (if available)
- Overturn the tray and remove the screws intended to secure the tray base to the compartments
- Remove the tray base from the compartments

To reassemble, act in the reverse order. Before repositioning the fastening screws, make sure that you have coupled the compartments with the tray base
Make sure that the wiring of electromagnets is not damaged during re-assembly.

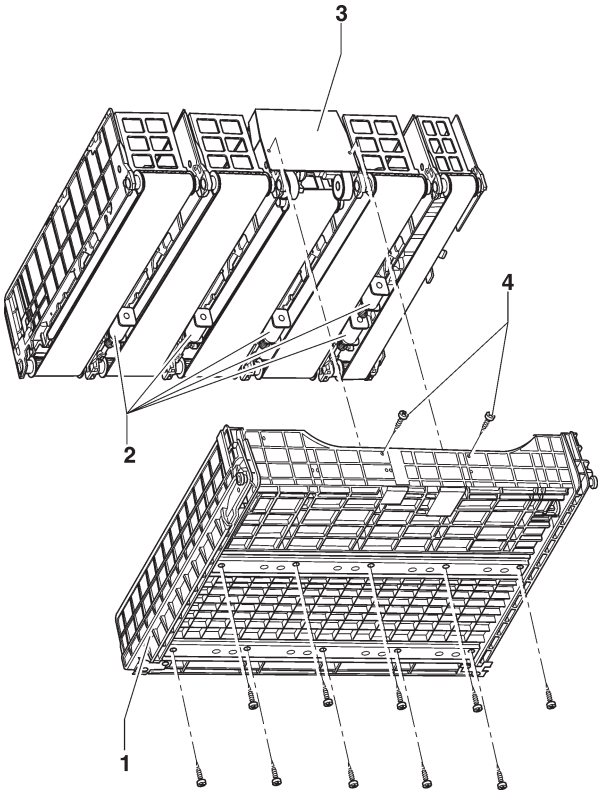


Fig. 43
1- Tray base
2- Electromagnets
3- Motor protection cover
4- Motor protection cover fastening screws

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 (unscrew the fastening screw)
- Remove the vandal-proof grid
- Remove the screws intended to fasten the product dispensing compartment and extract it.
- Remove the screws intended to fasten the cooling unit and extract it.
- To reassemble, act in the reverse order.

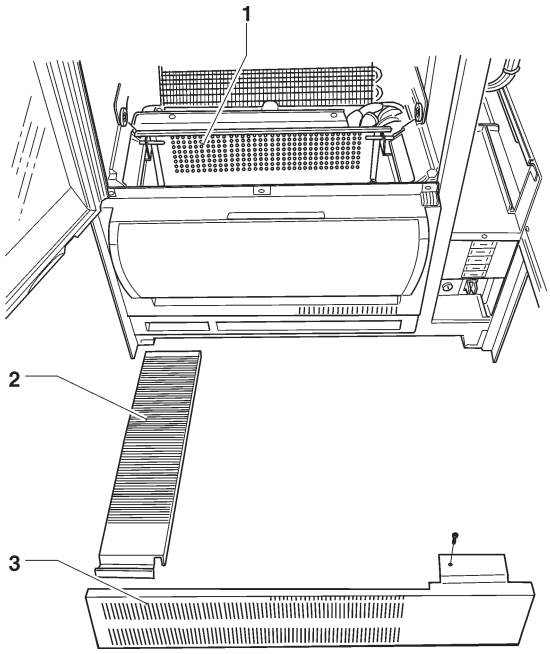


Fig. 44
1- Vandal-proof grid
2- Removable grid
3- Feet cover

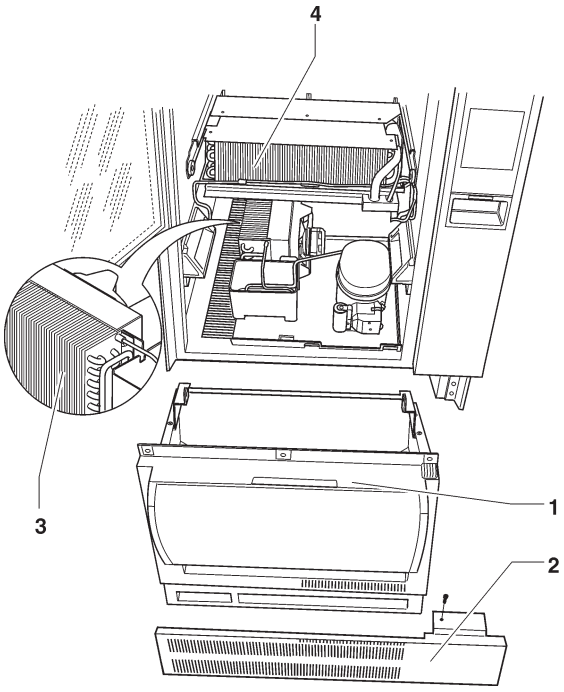


Fig. 45
1- Dispensing compartment
2- Feet cover
3- Condenser
4- Evaporator

PROGRAMMING MENU 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 on the slide-in compartment of payment systems (see fig. 37):
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.

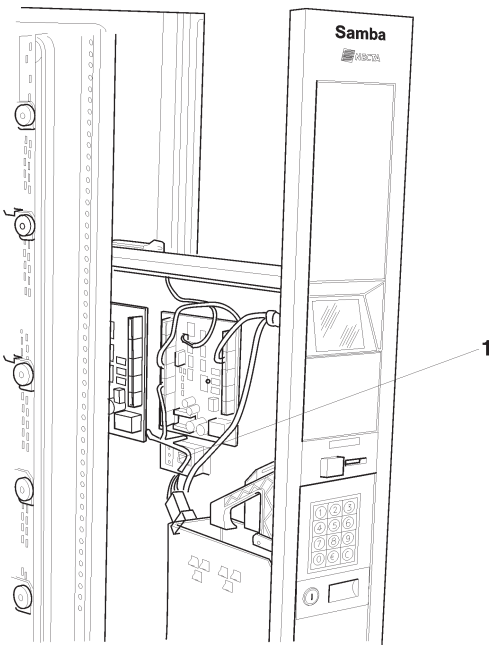
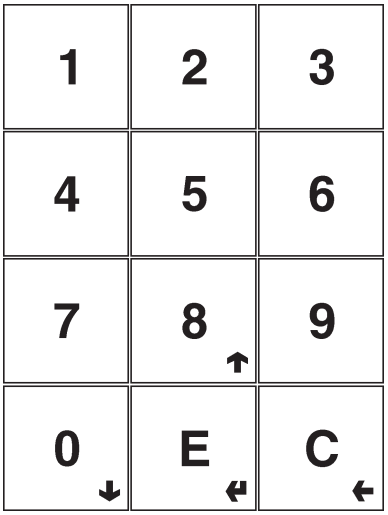


Fig. 46
1- Programming button

NAVIGATION MODE

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

Fig. 47



Scrolling keys UP ⑧ and DOWN ⓪

Press the ↑ and ↓ scrolling keys to move from one item to the other one of the programming menus on the same level and to change the enable status and the numeric value of the functions.

Confirmation / Enter key Ⓔ

Press the confirmation / Enter key ↵ to move to the lower level or to confirm a data item you have just entered or modified.

Exit key Ⓒ

Press the Exit key ← to move back to the upper level or to quit a field intended to modify a function. After having reached the highest Menu level, press this key once again to move from the Technician Menu to the Filler menu and viceversa.

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.

“FILLER MENU” SUMMARY

1 - STATISTICS

1.1 - STATIST.PRINTING

1.1.1 - PARTIAL PRINTING

1.1.1.1 - SELECT. COUNT.

1.1.1.2 - BAND COUNTER

1.1.1.3 - FAILURE COUNT.

1.1.1.4 - COIN MECH.DATA

1.1.1.5 - PRINT PHOT. ERR.

1.1.1.6 - PRINT MOTOR ERR.

1.1.2 - TOTAL PRINTING

1.2 - PRINT REL.STATS.

1.2.1 - PARTIAL PRINTING

1.2.1.1 - SELECT. COUNT.

1.2.1.2 - BAND COUNTER

1.2.1.3 - FAILURE COUNT.

1.2.1.4 - COIN MECH.DATA

1.2.1.5 - PRINT PHOT. ERR.

1.2.1.6 - PRINT MOTOR ERR.

1.2.2 - TOTAL PRINTING

1.3 - STATIST. DISPLAY

1.3.1 - SEL.COUNT.DISPL.

1.3.1.1 - COUNT X S. SEL.

1.3.1.2 - TOT.COUNT DISPL.

1.3.2 - DISP.BAND COUNT.

1.3.3 - FAILURE COUNT.

1.3.4 - COIN MECH.DISPL.

1.3.4.1 - AUDIT DATA DISP.

1.3.4.2 - CASH COUNT.DISP.

1.3.5 - PHOT.ERR.COUNTER

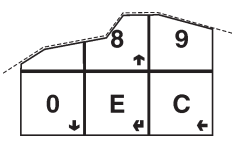
1.3.6 - MOT.ERR.COUNTER

PREVIOUS FUNCTION/ DECREASE VALUE (-1)

NEXT FUNCTION/ INCREASE VALUE (+1)

CONFIRM VALUES/ CONFIRM FUNCTION

DELETE VALUES/ QUIT FUNCTION



“FILLER MENU” SUMMARY

1.4 - DISP.REL.STATS.

1.4.1 - SEL.COUNT.DISPL.

1.4.1.1 - COUNT X S. SEL.

1.4.1.2 - TOT.COUNT DISPL.

1.4.2 - DISP.BAND COUNT.

1.4.3 - FAILURE COUNT.

1.4.4 - COIN MECH.DISPL.

1.4.4.1 - AUDIT DATA DISP.

1.4.4.2 - CASH COUNT.DISP.

1.4.5 - PHOT.ERR.COUNTER

1.4.6 - MOT.ERR.COUNTER

1.5 - CANC.RELAT.STATS

1.5.1 - PARTIAL RESET

1.5.1.1 - SELE.COUNT.RESET

1.5.1.2 - FAILURE COUNT.

1.5.1.3 - COIN MECH DATA

1.5.1.4 - CANC. PHOT. ERR.

1.5.1.5 - CANC.MOT.ERR.CNT

1.5.2 - TOTAL RESET

2 - INDIVIDUAL PRICE

3 - TUBE CONTROL

3.1 - FILLING TUBE

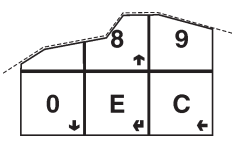
3.2 - TUBE EMPTYING

PREVIOUS FUNCTION/ DECREASE VALUE (-1)

NEXT FUNCTION/ INCREASE VALUE (+1)

CONFIRM VALUES/ CONFIRM FUNCTION

DELETE VALUES/ QUIT FUNCTION



“FILLER MENU” SUMMARY

4 - SPECIAL SELECT.

4.1 - VIRTUAL SELECT.

4.2 - VIRT. PRICE RET.

4.3 - TWO-MOTOR SELECT

4.4 - PHOTOCELL PARAM.

4.4.1 - SETTLING TIME

4.4.2 - MONEY RETURN

4.4.3 - EMPTY SEL.CONTR.

5 - TEST

5.1 - TEST SELECTION

5.2 - MOTOR TEST

5.3 - AUTOTEST

6 - GSM

6.1 - RESET PRE-ALARM. CNT

7 - EVADTS

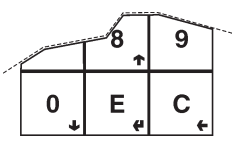
7.1 - CONNECTION

PREVIOUS FUNCTION/ DECREASE VALUE (-1)

NEXT FUNCTION/ INCREASE VALUE (+1)

CONFIRM VALUES/ CONFIRM FUNCTION

DELETE VALUES/ QUIT FUNCTION



“TECHNICIAN MENU” SUMMARY

1 - COIN MECHAN.SET.

2 - PRICES

2.1 - INDIVIDUAL PRICE

2.2 - GLOBAL PRICES

2.3 - TIME SCHEDULE

2.3.1 - TIME BAND 1

2.3.2 - TIME BAND 2

2.3.3 - TIME BAND 3

2.3.4 - TIME BAND 4

3 - DA CONFIGURATION

3.1 - SET DATE & TIME

3.2 - COLD UNIT

3.3 - DB MANAGEMENT

3.3.1 - INITIALISING DB

3.4 - DISPLAY

3.4.1 - LANGUAGE

3.4.2 - SECOND LANGUAGE

3.4.3 - USER DISPLAY

3.4.4 - PROMOT. ADVERT.

3.4.5 - IMAGE ADVERT

3.4.6 - CONTRAST CONTROL

3.5 - MENU MANAGEMENT

3.5.1 - SET PASSWORD

3.6 - SPIRALS/SELECT.

3.6.1 - MACHINE CONFIGURATIN

3.6.2 - VIRTUAL SELECT.

3.6.3 - VIRT. PRICE RET.

3.6.4 - TWO-MOTOR SELECT

3.6.5 - SELEZ. A ROTAZIONE

3.6.6 - PRODUCT CODE

3.6.7 - DIRECT SELECT.

3.6.7.1 - EN. DIR. SELECT.

3.6.7.2 - SET DIR. SELECT.

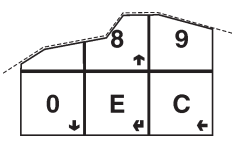
3.6.8 - PARAM. ASCENSORE

PREVIOUS FUNCTION/ DECREASE VALUE (-1)

NEXT FUNCTION/ INCREASE VALUE (+1)

CONFIRM VALUES/ CONFIRM FUNCTION

DELETE VALUES/ QUIT FUNCTION



“TECHNICIAN MENU” SUMMARY

3.7 - PHOTOCELL PARAM.

3.7.1 - SETTLING TIME

3.7.2 - MONEY RETURN

3.7.3 - EMPTY SEL.CONTR.

3.8 - COMP.LOCK PARAM.

3.8.1 - OPERATING MODE

3.8.2 - UNLOCK TIME

3.8.3 - OUT OF SERV.TIME

3.8.4 - OUT SER. IF OPEN

3.9 - ENERGY SAVING

3.A - V.M. LED OUT OF ORD.

3.B - PRG.MACHINE CODE

3.C - OPER. CODE ENTRY

3.D - DA LOCATION CODE

3.E - INSTALLAT. DATE

3.F - MASTER SLAVE

3.F.1 - IMPOSTAZIONE

3.F.2 - SLAVE PRICE HOLD

3.F.3 - COMBINED SELECTIONS

3.F.4 - SFERA TYPE

4 - TEST

4.1 - TEST SELECTION

4.2 - MOTOR TEST

4.3 - AUTOTEST

5 - STATISTICS

5.1 - ELECTRONIC COUNTER

5.1.1 - DISPLAY COUNTERS

5.1.2 - RESET COUNTER

5.1.3 - EN. COUNTER AT START

5.2 - EVADTS

5.2.1 - PROTOC. COMUNICAZ.

5.2.2 - TRASMISSIONE DATI

5.2.3 - BAUDRATE

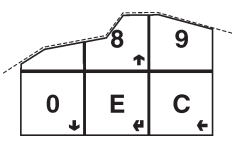
5.2.4 - CONNECTION

PREVIOUS FUNCTION/ DECREASE VALUE (-1)

NEXT FUNCTION/ INCREASE VALUE (+1)

CONFIRM VALUES/ CONFIRM FUNCTION

DELETE VALUES/ QUIT FUNCTION



“TECHNICIAN MENU” SUMMARY

5.3 - STATIST. DISPLAY

5.3.1 - SEL.COUNT.DISPL.

5.3.1.1 - COUNT X S. SEL.

5.3.1.2 - TOT.COUNT DISPL.

5.3.2 - DISP.BAND COUNT.

5.3.3 - FAILURE COUNT.

5.3.4 - COIN MECH.DISPL.

5.3.4.1 - AUDIT DATA DISP.

5.3.4.2 - CASH COUNT.DISP.

5.4 - STATISTICS RESET

5.4.1 - PARTIAL RESET

5.4.1.1 - SELE.COUNT.RESET

5.4.1.2 - FAILURE COUNT.

5.4.1.3 - COIN MECH DATA

5.4.2 - TOTAL RESET

5.5 - DISP.REL.STATS.

5.5.1 - SEL.COUNT.DISPL.

5.5.1.1 - COUNT X S. SEL.

5.5.1.2 - TOT.COUNT DISPL.

5.5.2 - DISP.BAND COUNT.

5.5.3 - FAILURE COUNT.

5.5.4 - COIN MECH.DISPL.

5.5.4.1 - AUDIT DATA DISP.

5.5.4.2 - CASH COUNT.DISP.

5.6 - CANC.RELAT.STATS

5.6.1 - PARTIAL RESET

5.6.1.1 - SELE.COUNT.RESET

5.6.1.2 - FAILURE COUNT.

5.6.1.3 - COIN MECH DATA

5.6.2 - TOTAL RESET

5.7 - STATIST.PRINTING

5.7.1 - PARTIAL PRINTING

5.7.1.1 - SELECT. COUNT.

5.7.1.2 - BAND COUNTER

5.7.1.3 - FAILURE COUNT.

5.7.1.4 - COIN MECH.DATA

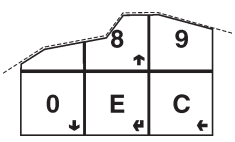
5.7.2 - TOTAL PRINTING

↑ PREVIOUS FUNCTION/ DECREASE VALUE (-1)

↓ NEXT FUNCTION/ INCREASE VALUE (+1)

↵ CONFIRM VALUES/ CONFIRM FUNCTION

← DELETE VALUES/ QUIT FUNCTION



“TECHNICIAN MENU” SUMMARY

5.8 - PRINT REL.STATS.

5.8.1 - PARTIAL PRINTING

5.8.1.1 - SELECT. COUNT.

5.8.1.2 - BAND COUNTER

5.8.1.3 - FAILURE COUNT.

5.8.1.4 - COIN MECH.DATA

5.8.2 - TOTAL PRINTING

6 - COMMUNICATION

6.1 - UPKEY

6.1.1 - UPKEY -> MACHINE

6.1.2 - MACHINE -> UPKEY

6.1.3 - DELETE

6.1.4 - DELETE ALL

6.2 - AUDIT MANAGEMENT

6.2.1 - MACHINE -> UPKEY

6.2.2 - DELETE

6.2.3 - DELETE ALL

7 - FAILURES

7.1 - FAILURE READING

7.2 - FAILURE RESET

7.3 - MOTOR ERRORS

7.4 - MOTORS' STATUS

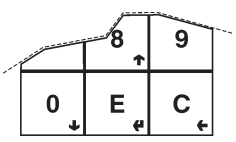
7.5 - RESET MOTOR ERR.

PREVIOUS FUNCTION/ DECREASE VALUE (-1)

NEXT FUNCTION/ INCREASE VALUE (+1)

CONFIRM VALUES/ CONFIRM FUNCTION

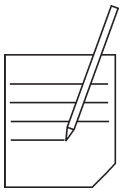
DELETE VALUES/ QUIT FUNCTION

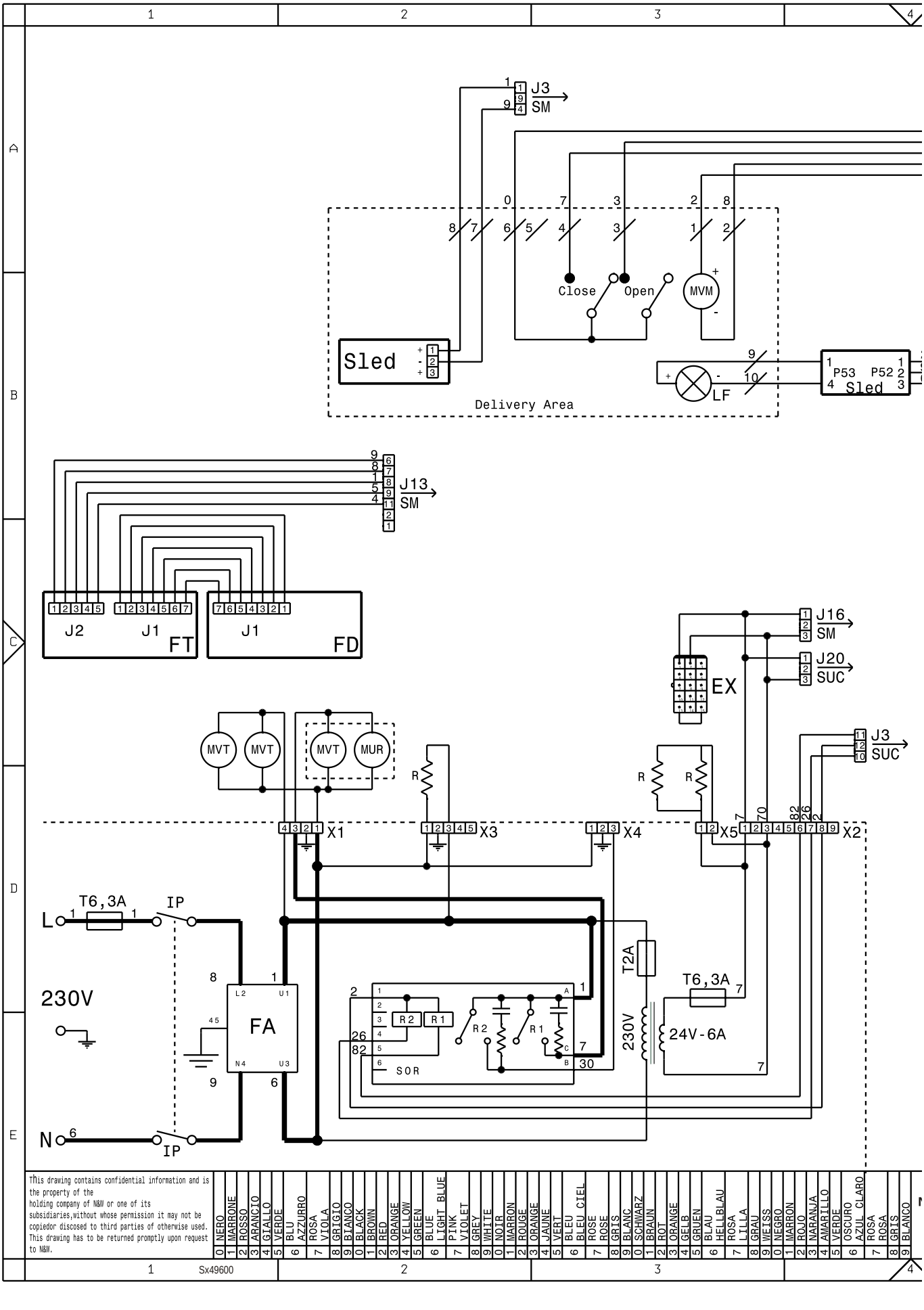


WIRING DIAGRAM LEGEND

INITIALS	DESCRIPTION
BDV	BDV COIN MECH CONNECTOR
bot	LOWER LIMIT SWITCH
CF	FILTER CONDENSER
close	CLOSED PRODUCT COMPARTMENT SWITCH
CM0-9	VENDING MOTOR CAM
CMV	COMPARTMENT LOCK MOTOR CAM
D	DIODE
ESC1-6	JAW ELECTROMAGNET
EX	EXECUTIVE COIN MECH CONNECTORS
FA	RADIO INTERFERENCE SUPPRESSOR
FD	PHOTODIODE
FT	PHOTOTRANSISTOR
IP	DOOR SWITCH
ISA	OPEN DISP COMPT FLAP SWITCH
LCD	LIQUID CRYSTAL DISPLAY
LF	LAMP
M1-...	RELEASE MOTOR
MAV	VERTICAL DRIVE MOTOR
MBV	DISPENSING COMPARTMENT LOCK MOTOR
MDB	MDB COIN MECH CONNECTOR
MDS	SAFETY MICROSWITCH
micro	CENTRAL SWITCH

INITIALS	DESCRIPTIONE
MIP	DOOR MICROSWITCH
MS1	DISP COMPT FLAP MICROSWITCH
MUR	COMPRESSOR
MVM	PRODUCT COMPARTMENT MOVEMENT MOTOR
MVT	FAN
NTC	TEMPERATURE PROBE
open	OPEN PRODUCT COMPARTMENT SWITCH
PIP	PROGRAMMING BUTTON
R	HEATING ELEMENT
R1-...	RELAIS
RL	BELT MOTOR RELAY
RS232	SERIAL PORT
SALIM	POWER SUPPLY UNIT BOARD
SLCD	LIQUID CRYSTAL DISPLAY
SLED	LED BOARD
SM	CONTROL BOARD
SOR	OUT/R BOARD
SP	BUTTON BOARD
SUC	C.P.U. BOARD
tacho	MOTOR REV COUNTER
top	UPPER LIMIT SWITCH
TR	TRANSFORMER
TX....	DELAYED FUSE (X=CURRENT)





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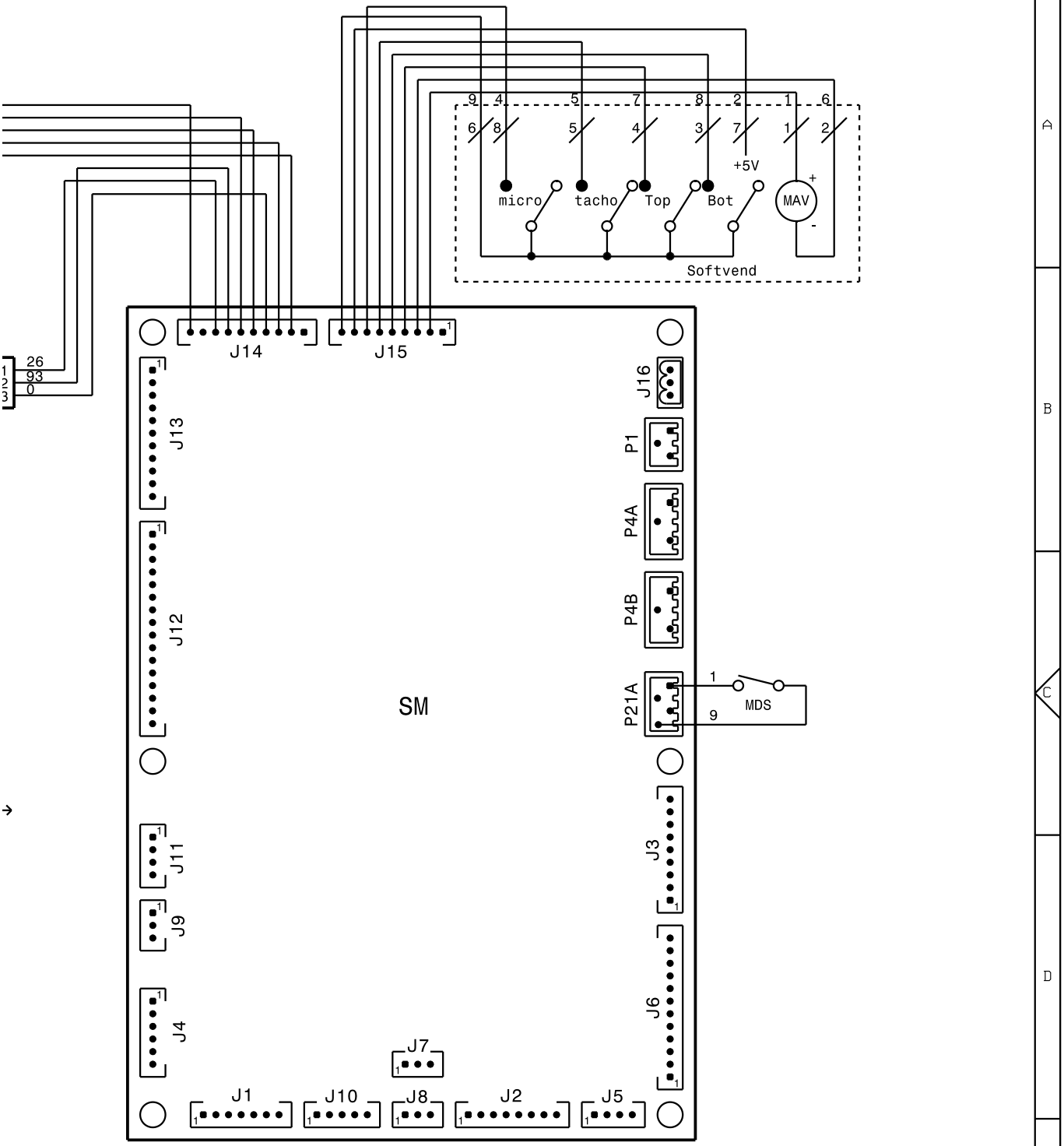
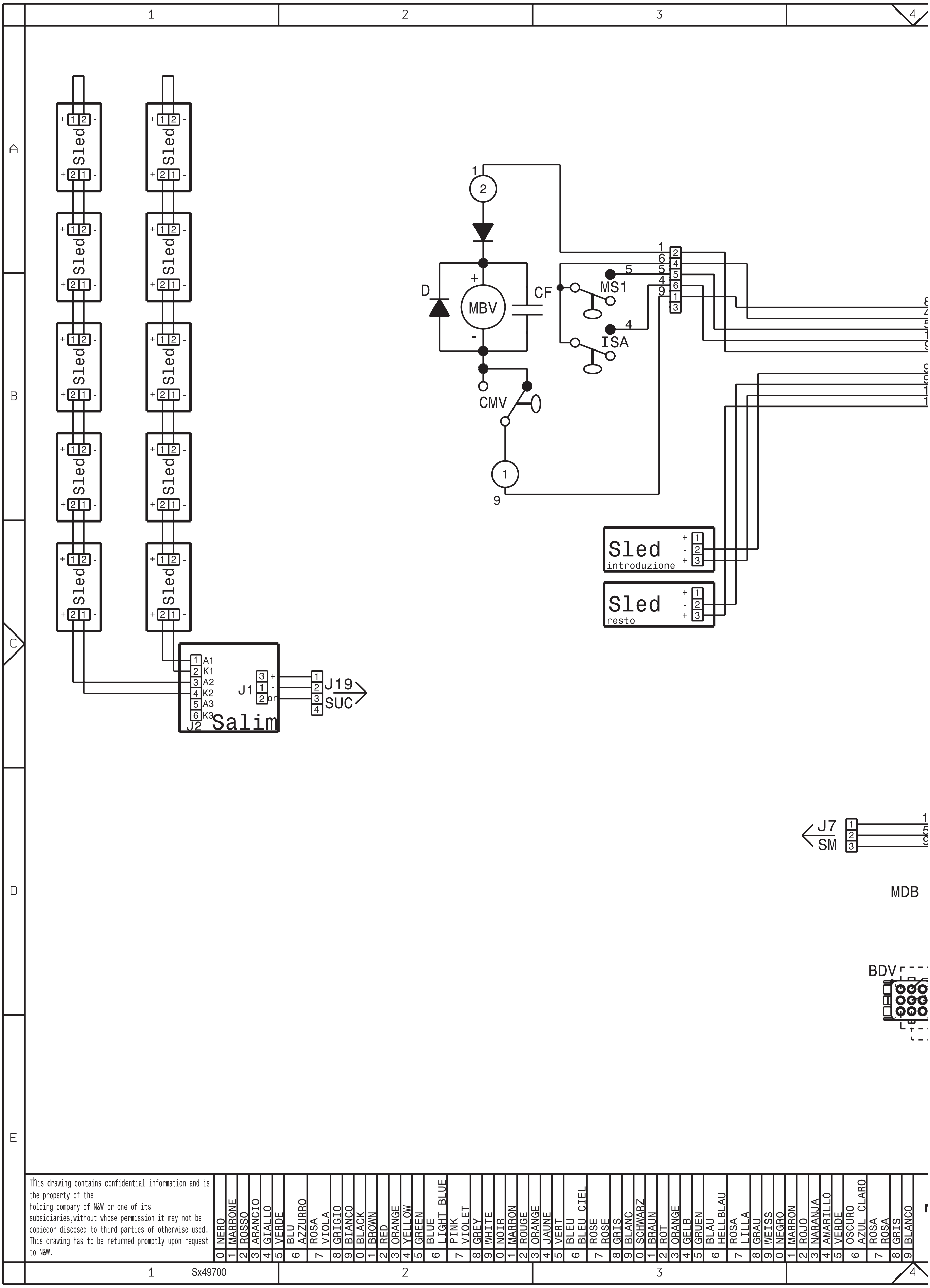
0	NERO	BLACK
1	MARRONE	BROWN
2	ROSSO	RED
3	ARANCIO	ORANGE
4	GIALLO	YELLOW
5	VERDE	GREEN
6	BLU	BLUE
6	AZZURRO	LIGHT BLUE
7	ROSA	PINK
7	VIOLA	VIOLET
8	GRIGIO	GREY
9	BIANCO	WHITE
0	NOIR	
1	MARRON	
2	ROUGE	
3	ORANGE	
4	JAUNE	
5	VERT	
6	BLEU	
6	BLEU CIEL	
7	ROSE	
7	ROSE	
8	GRIS	
9	BLANC	
0	SCHWARZ	
1	BRAUN	
2	ROT	
3	ORANGE	
4	GELB	
5	GRUEN	
6	BLAU	
6	HELLBLAU	
7	ROSA	
7	LILLA	
8	GRAU	
9	WEISS	
0	NEGRO	
1	MARRON	
2	ROJO	
3	NARANJA	
4	AMARILLO	
5	VERDE	
6	OSCURO	
6	AZUL CLARO	
7	ROSA	
7	ROSA	
8	GRIS	
9	BLANCO	

Sx49600



N&W GLOBAL VENDING S.p.A. Valbrembo – Italia	MODEL **Samba** *Plus - Top*	DEFINITION SCHEMA ELETTRICO - WIRING DIAGRAM	DATE 31/07/2008	SHEET 1 / 1	PREPARED BREMBILLA	CHECKED MONGUZZI	
			LEGENDA -	PART NUMBER 608549600			VERSION B

9 BLANCO



1
2
3
4
A
B
C
D
E
Sled
Sled introduzione
Sled resto
J2 Salim
A1
K1
A2
K2
A3
K3
J1
J19
SUC
D
MBV
CF
MS1
ISA
CMV
J7
SM
MDB
BDV
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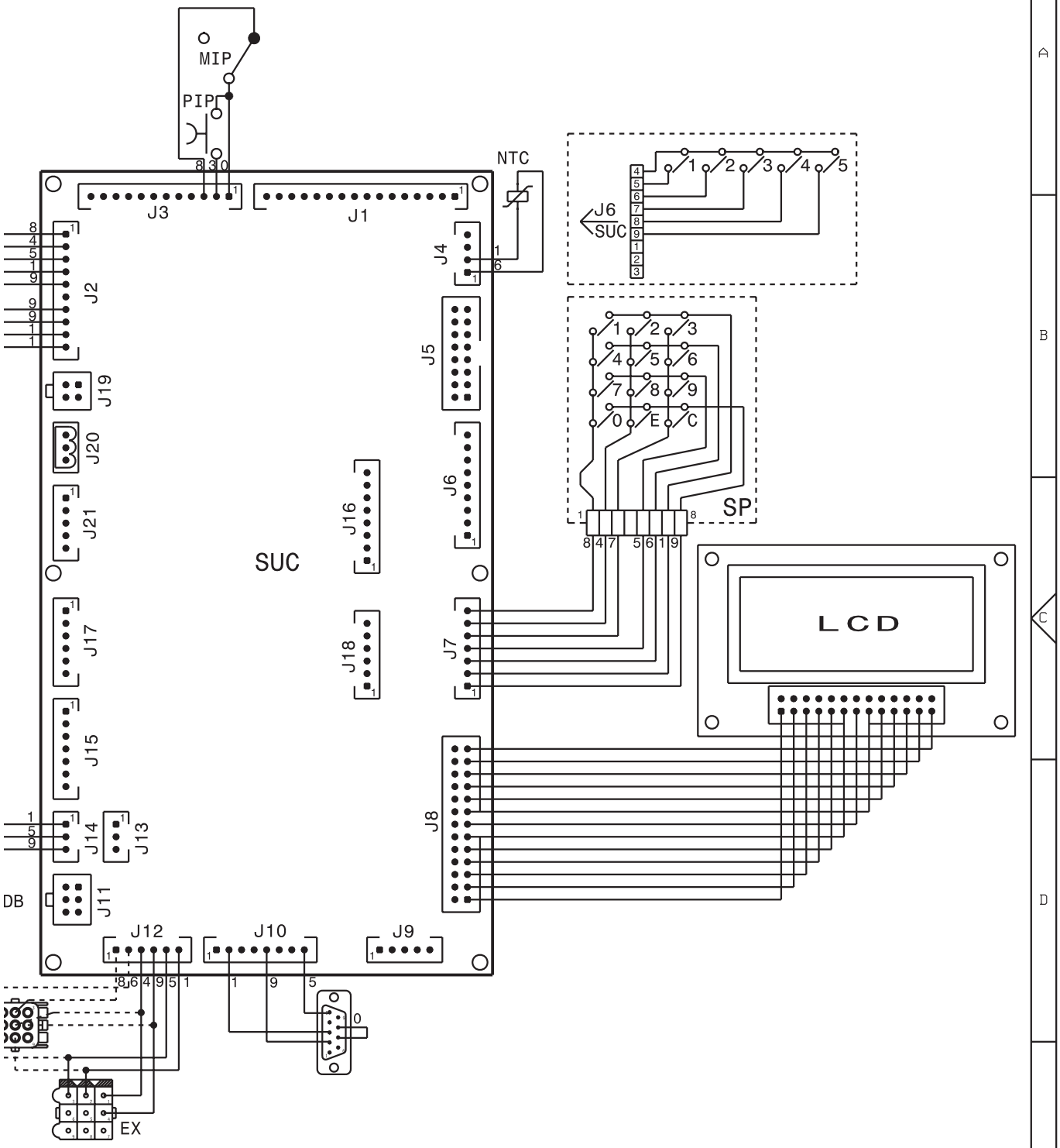
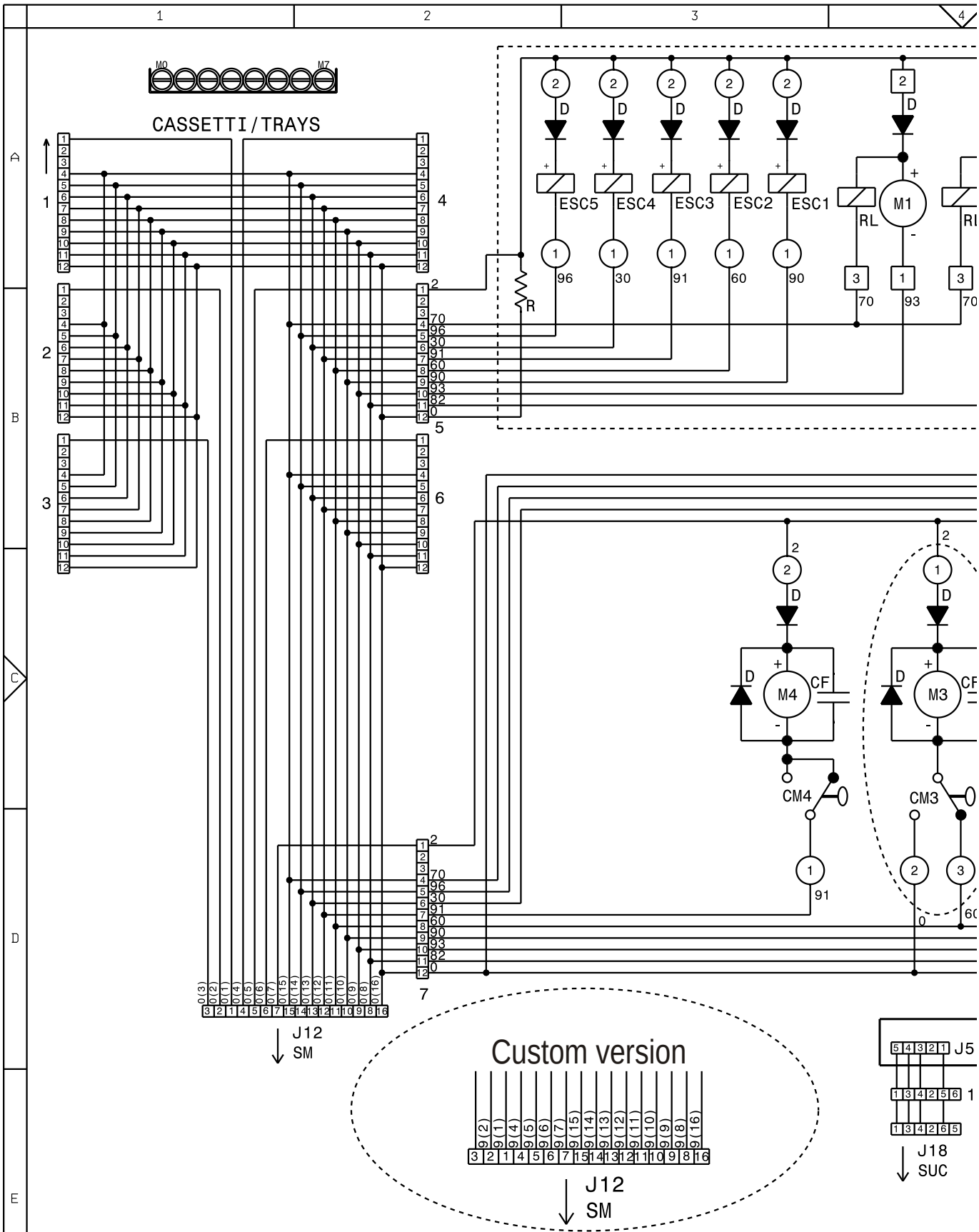
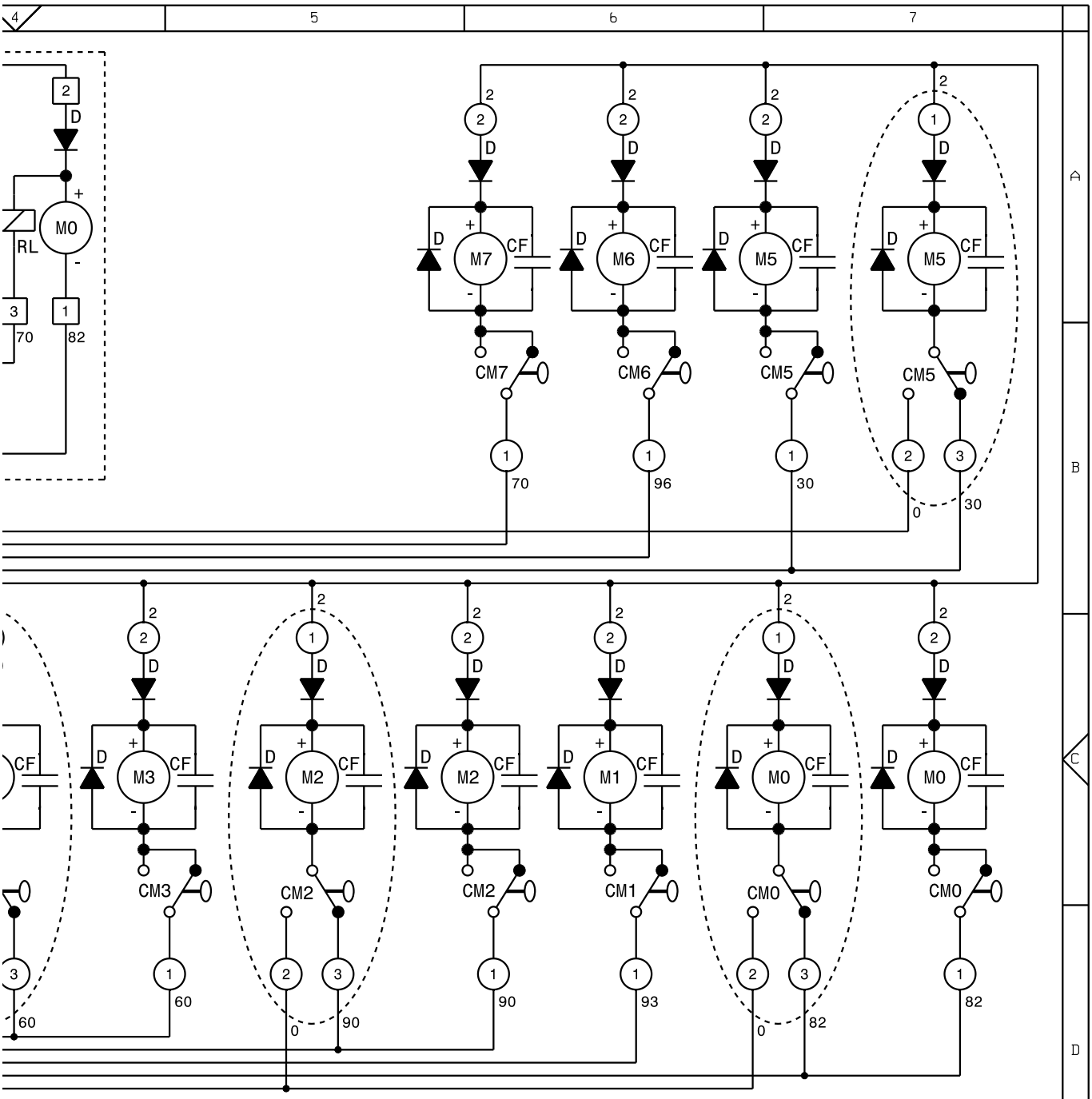
0 NERO
1 MARRONE
2 ROSSO
3 ARANCIO
4 GIALLO
5 VERDE
BLU
6 AZZURRO
ROSA
7 VIOLA
8 GRIGIO
9 BIANCO
0 BLACK
1 BROWN
2 RED
3 ORANGE
4 YELLOW
5 GREEN
BLUE
6 LIGHT BLUE
PINK
7 VIOLET
8 GREY
9 WHITE
0 NOIR
1 MARRON
2 ROUGE
3 ORANGE
4 JAUNE
5 VERT
BLEU
6 BLEU CIEL
ROSE
7 ROSE
8 GRIS
9 BLANC
0 SCHWARZ
1 BRAUN
2 ROT
3 ORANGE
4 GELB
5 GRUEN
BLAU
6 HELLBLAU
ROSA
7 LILLA
8 GRAU
9 WEISS
0 NEGRO
1 MARRON
2 ROJO
3 NARANJA
4 AMARILLO
5 VERDE
OSCURO
6 AZUL CLARO
ROSA
7 ROSA
8 GRIS
9 BLANCO
Sx49700



N&W GLOBAL VENDING S.p.A. Valbrembo – Italia	MODEL **Samba** *Plus - Top*	DEFINITION Schema elettrico porta Door wiring diagram	DATE 31/07/2008	SHEET 1 / 1	PREPARED BREMBILLA	CHECKED MONGUZZI
			LEGENDA -	PART NUMBER 608549700		VERSION A



0	NERO	BLACK
1	MARRONE	BROWN
2	ROSSO	RED
3	ARANCIO	ORANGE
4	GIALLO	YELLOW
5	VERDE	GREEN
6	BLU	BLUE
	AZZURRO	LIGHT BLUE
7	ROSA	PINK
	VIOLA	VIOLET
8	GRIGIO	GREY
9	BIANCO	WHITE
0	BLACK	NOIR
1	BROWN	MARRON
2	RED	ROUGE
3	ORANGE	ORANGE
4	YELLOW	JAUNE
5	GREEN	VERT
6	BLUE	BLEU
	LIGHT BLUE	BLEU CIEL
7	PINK	ROSE
	VIOLET	ROSE
8	GREY	GRIS
9	WHITE	BLANC
0	NOIR	SCHWARZ
1	MARRON	BRAUN
2	ROUGE	ROT
3	ORANGE	ORANGE
4	JAUNE	GELB
5	VERT	GRUEN
6	BLEU	BLAU
	BLEU CIEL	HELLBLAU
7	ROSE	ROSA
	ROSE	LILLA
8	GRIS	GRAU
9	BLANC	WEISS
0	SCHWARZ	NEGRO
1	BRAUN	MARRON
2	ROT	ROJO
3	ORANGE	NARANJA
4	GELB	AMARILLO
5	GRUEN	VERDE
6	BLAU	OSCURO
	HELLBLAU	AZUL CLARO
7	ROSA	ROSA
	LILLA	ROSA
8	GRAU	GRIS
9	WEISS	BLANCO
0	NEGRO	
1	MARRON	
2	ROJO	
3	NARANJA	
4	AMARILLO	
5	VERDE	
6	OSCURO	
	AZUL CLARO	
7	ROSA	
8	GRIS	
9	BLANCO	



J5 SLCD

6 1:6

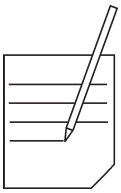
5

CASSETTO	DIP 1	DIP 2	DIP 3
CASSETTO 1	ON	ON	ON
CASSETTO 2	ON	ON	OFF
CASSETTO 3	ON	OFF	ON

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

9 BLANCO	N&W GLOBAL VENDING S.p.A. Valbrembo – Italia	MODEL Samba *Plus - Top*	DEFINITION Schema elettrico cassetti Trays wiring diagram	DATE 31/07/2008	SHEET 1 / 1	PREPARED BREMBILLA	CHECKED MONGUZZI
				LEGENDA -	PART NUMBER 608549802		VERSION

4 5 6 7



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