INSTALLATION, OPERATION, MAINTENANCE
Translation of original instructions

Swing

EN English

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CE

DICHIARAZIONE DI CONFORMITA' - DECLARATION OF CONFORMITY - DÉCLARATION DE CONFORMITÉ - KONFORMITÄTSERKLÄRUNG - DECLARACIÓN DE CONFORMIDAD - DECLARAÇÃO DE CONFORMIDADE - VERKLARING VAN OVEREENSTEMMING - OVERENSSTEMMELSESERKLÆRING - FÖRSÄKRAN OM ÖVERENSSTÄMMELSE - VAATIMUSTENMUKAISUUSVAKUUTUS - ERKLÆRING OM OVERENSSTEMMELSE - PROHLÁŠENÍ O SHODĚ - DEKLARACJA ZGODNOŚCI - ДЕКЛАРАЦИЯ СООТВЕТСТВИЯ -

IT La presente dichiarazione di conformità è rilasciata sotto l'esclusiva responsabilità del fabbricante. Si dichiara che l'apparecchiatura, descritta nella targhetta di identificazione, è conforme alle disposizioni legislative delle Direttive Europee e successive modifiche ed integrazioni.
Vengono riportate 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.

EN This declaration of conformity is issued under the manufacturer's sole responsibility. It is declared that the equipment described by the identification plate is in compliance with the legal provisions of the European Directives as well as its subsequent amendments and supplements.
The harmonised standards or the technical specifications (designations) applied in compliance with the safety rules of good practice in force in the EU are stated herein.

FR La présente déclaration de conformité est délivrée sous la responsabilité exclusive du fabricant. On déclare que l'appareillage décrit sur la plaquette d'identification est conforme aux dispositions législatives des Directives européennes et leurs modifications et intégrations ultérieures. Sont indiquées les normes harmonisées ou les spécifications techniques (désignations) qui ont été appliquées conformément aux bonnes règles de l'art en matière de sécurité en vigueur dans l'UE.

ES La presente declaración de conformidad se entrega bajo la exclusiva responsabilidad del fabricante. Se declara que el aparato, descripto en la etiqueta de identificación, es conforme con las disposiciones legislativas de las Directivas Europeas y con sus sucesivas modificaciones e integraciones.
Se indican las normas armonizadas o las especificaciones técnicas (designaciones) que han sido aplicadas de acuerdo con las reglas del buen arte en materia de seguridad en vigencia en la UE.

DE Diese Konformitätserklärung wurde unter ausschließlicher Verantwortung des Herstellers verfasst. Es wird erklärt, dass das auf dem Typenschild beschriebene Gerät den gesetzlichen Bestimmungen der Europäischen Richtlinien und anschließenden Änderungen und Ergänzungen entspricht. Es werden die harmonisierten technischen Spezifikationen (Bestimmungen) aufgeführt, die gemäß den Regeln der Kunst hinsichtlich den in der EU geltenden Sicherheitsnormen angewendet wurden.

PT A presente declaração de conformidade é emitida sob exclusiva responsabilidade do fabricante. Declara-se que o equipamento, descrito na placa de identificação, está em conformidade com as disposições legislativas das Diretivas Europeias e sucessivas modificações e integrações. São indicadas as normas harmonizadas ou as especificações técnicas (designações) que foram aplicadas de acordo com as regras de boa engenharia em matéria de segurança, em vigor na UE.

NL Deze verklaring van overeenstemming wordt uitsluitend onder de verantwoordelijkheid van de fabrikant verstrekt. Men verklaart dat het apparaat, beschreven op het identificatieplaatje, overeenstemt met de wettelijke bepalingen van de Europese Richtlijnen en daaropvolgende wijzigingen en aanvullingen.Hierna worden de geharmoniseerde normen of de technische specificaties (aanwijzingen) aangegeven die toegepast werden in overeenstemming met de regels van de goede techniek op gebied van veiligheid, die in de EU van kracht zijn.

DA Denne overensstemmelseserklæring udstedes ene og alene på fabrikantens ansvar. Det erklæres hermed, at apparaturet, der er beskrevet på udstyrets typeskilt, opfylder de lovgivningsmæssige i krav i de europæiske direktiver samt senere ændringer og tilføjelser. De anvendte harmoniserede standarder eller tekniske specifikationer (betegnelser), som er anvendt i overensstemmelse med reglerne i de tekniske sikkerhedsforskrifter gældende i EU.

SV Denna försäkran om överensstämmelse utfärdas av tillverkaren på dennes egna ansvar. Vi försäkrar att utrustningen, som beskrivs på märkskylten, överensstämmer med lagar och författningar i EU-direktiven och i ändrad och kompletterad lydelse. Harmoniserade standarder eller tekniska specifikationer (beteckningar) återges som har tillämpats enligt sunda tekniska principer i fråga om säkerheten som gäller inom EU och som anges i listan på samma sida.

FI Tämä vaatimustenmukaisuusvakuutus annetaan valmistajan yksinomaisen vastuun alla. Vakuutamme, että arvokilvessä kuvattu laite vastaa neuvoston direktiivejä sekä niihin liittyviä muutoksia ja täydennyksiä. Lisäksi annetaan yhdenmukaistetut standardit tai tekniset erittelyt (käyttötarkoitukset), joita on sovellettu EU-maissa, voimassa olevien turvallisuutta koskevien valmistukseen liittyvien määräysten ohella.

NO Denne samsvarserklæringen er utferdiget under eneansvar av produsenten. Det erklæres at apparatet, beskrevet på typeskiltet, er i samsvar med gjeldende europeiske direktiver og senere endringer og tillegg. Harmoniserte standarder eller tekniske spesifikasjoner (betegnelser) anvendt i samsvar med EUs gjeldende sikkerhetsregler er angitt.

CZ Toto prohlášení o shodě je vydáno v plné zodpovědnosti výrobce. Prohlašuje se, že zařízení popsané na identifikačním typovém lístku odpovídá legislativním nařízením Evropských směrnic ve znění pozdějších změn a doplňků. Harmonizované standardy nebo technické specifikace (označení) jsou aplikovány v souladu se správnou praxíplatnou v EU uvedenou níže.

Direttive e regolamenti europei **European directives and regulations**		**Norme armonizzate / Specifiche tecniche** **Harmonised standards / Technical specifications**	
2014/35/EU*	(LVD)	EN 60335-1:2012+A11:2014+A13:2017+A1:2019+A2:2019+A14:2019 EN 60335-2-75:2004+A12:2010+A11:2006+A1:2005+A2:2008	EN 62233:2008
2006/42/EC*	(MD)	EN 60335-1:2012+A11:2014+A13:2017+A1:2019+A2:2019+A14:2019	
2014/68/EU	(PED)	EN 60335-1:2012+A11:2014+A13:2017+A1:2019+A2:2019+A14:2019	
2014/30/EU	(EMCD)	EN 55014-1:2017 EN 55014-2:2015	EN 61000-3-2:2019 EN 61000-3-3:2013
EU 2017/1369 + EU 2019/2018		EN IEC 63252:2020	
2009/12/EC + EU 2019/2024			
EC 1935/2004		EN 16889:2016	EDQM Practical Guide CM/RES (2013)9
10/2011/EU+amendments			
EC 2023/2006	(GMP)		
2011/65/EU+ amendments	(RoHS)	EN 50581:2012	
2012/19/EU	(WEEE)		
2014/53/EU **	(RED)	EN 62311:2008 EN 60335-1:2012+A11:2014+A13:2017+A1:2019+A2:2019+A14:2019 EN 60335-2-75:2004+A12:2010+A11:2006+A1:2005+A2:2008	ETSI EN 301 489-1 V2.1.1:2016 ETSI EN 301 489-1 V2.2.3:2019 ETSI EN 301 489-17 V3.2.4:2020 ETSI EN 301 489-52 V1.1.0:2016 ETSI EN 301 511 V12.5.1:2017 ETSI EN 301 908-1 V13.1.1:2019 ETSI EN 300 328 V2.2.2:2019

* Qualunque sia applicabile / Whichever applicable
**Solo con moduli radio di Evoca S.p.A. / Only with radio modules of Evoca S.p.A.

Il fascicolo tecnico è costituito e disponibile presso:
The technical file is compiled and available at:

Evoca S.p.A. 12/01/2021

ANDREA ZOCCHI
C.E.O

Declaration of conformity

CE The declaration of conformity is issued under the manufacturer's sole responsibility.
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.

- The legal provisions of the European Directives in force (with the subsequent amendments and integrations thereof).
- The harmonised standards in force.
- The technical specifications (names) applied in compliance with the safety rules of good practice enforced in the EU and listed on the same page.

INCORPORATION OF RADIO MODULES

In compliance with Article 17 of Directive 2014/53/EU (RED), the manufacturer checks whether the radio equipment is in compliance with the essential requirements of article 3 of the Directive.
The procedure used to check compliance is at the manufacturer's discretion.
If a radio module is built in a "non-radio" equipment, the subject incorporating the module will become the manufacturer of the end product and it must therefore check the end product compliance with the essential requirements of the 2014/53/EU (RED) Directive.
As a matter of fact, the incorporation of radio modules in other products can influence the end product compliance with the essential requirements of the Directive.

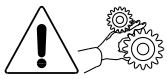
DEFINITIONS ACCORDING TO THE LAW

The **manufacturer** is a natural or legal person who manufactures radio equipment and/or electric material or has it engineered, manufactured or marketed by putting its own trademark or name on it.
An **importer** or **distributor** who places radio equipment or electric material on the market by putting its own name or trademark becomes the manufacturer.
An **importer** or **distributor** who makes any change to radio equipment or electric material already placed on the market to such an extent that the said change may condition the compliance with the listed directives is held to be the manufacturer and it must therefore assume the relative obligations according to the said directives.

Symbology

The following symbols may be present inside the machines, according to models (signs of danger):

Attention: dangerous voltage
Power off before removing the cover.
To reduce the risk of fires or electric shocks, never remove the cover. No part may be repaired by the user inside.
Repairs may be made by authorised customer care personnel only.



Attention
Danger of crushing your hands

Attention
Risk of fire

The signs of danger must be readable and visible; they shall be neither hidden nor removed. Damaged or unreadable labels must be replaced.

Warnings

This document intended for the technical personnel is made available in the electronic format at the manufacturer's (reserved web site area).

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 use of kits and/or accessories not type-approved by the manufacturer can not guarantee the observance of safety standards, in particular for live parts.
The installer will be the sole person responsible for any damage improper installation may cause to the machine or to things and people.
The manufacturer declines all responsibility for the use of non type-approved components.

Assembly and any 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 hygiene standards.

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 respect of the environment.

FOR USE

The machine can be used by children over 8 years 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 not be allowed to play with the machine by the people in charge of their supervision.
Children shall not be allowed to clean or service the machine.

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 considerable energy saving.

FOR DISMANTLING AND DISPOSAL

When dismantling the machine, it is recommended to destroy the machine rating plate.

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 2012/19/EU (Waste Electrical and Electronic Equipment - 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.

❗ R290 refrigerant gas with Global Warming Potential (GWP) equal to 3 is used in the machines.

RISK OF FIRE

The type of refrigerant contained is R290: it is environmentally friendly but flammable.

ATTENTION: Keep the ventilation openings in the machine casing or in the built-in unit free of obstructions.

ATTENTION: Never use any other or additional mechanical devices or means to speed up the defrost process except for those specified by the manufacturer.

ATTENTION: Never use electric equipment inside the compartments for foodstuff preservation if this is not of the type recommended by the manufacturer.

During the handling, installing and/or maintenance operations it is important to act as follows:

- Do not damage the conduits of the refrigeration circuit.
- Never act inside the equipment with open flames or sources of ignition.
- In case of refrigerant leakage: eliminate the open flames or the sources of ignition in the proximity of the point of leakage and thoroughly ventilate the room.
  Any gas leakage can set the electric components on fire.
- Never place lighted candles, lamps and any other object with open flames near the equipment so as to prevent this from being set on fire.

English

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 tree 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.

TRANSPORT AND STORAGE

TRANSPORT

To avoid any damage to the equipment and any injury to the people, the equipment must be handled with great care.

While handling, there is the danger of crushing one's hands and/or feet: never forget to use proper work gloves and shoes.

Handle the equipment by using lifting means suitable for the size and the weight of the equipment (e.g. lifting truck).

Lifting means may only be used by personnel fulfilling special requirements.

Please avoid:

- overturning and/or tilting the equipment;
- dragging or lifting the equipment by means of ropes or alike;
- lifting the equipment by its sides;
- shaking or impacting the equipment and its package.

STORAGE

The storage area must be dry and its temperature lie between 0 and 40°C

If the equipment should freeze, condition it at a temperature between 0° and 40°C.

Wait for the temperature of the equipment to adjust to the room temperature before powering it on.

Before powering on the equipment, please wait for the humidity condensate (if any) to dry completely.

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:

Evoca S. p. A.
Via Roma 24
24030 Valbrembo
Italy - Tel. +39 035606111

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 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.

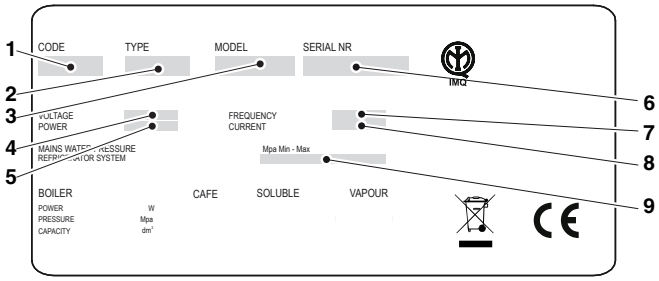


Fig. 1

1. *Product code*
2. *Type*
3. *Model*
4. *Operating voltage*
5. *Absorbed power*
6. *Serial number*
7. *Frequency*
8. *Current*
9. *Type and quantity of refrigerating gas*

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.

In its maximum configuration, the machine can be used at the same time to:

- Dispense products requiring no refrigeration (snacks)
- Dispense products requiring refrigeration (food)
  The preservation of these products is guaranteed by the “food” area of the machine; the "food" area (area with a temperature between 0 and 4°C) can be recognised by the presence of labels 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.

TECHNICAL FEATURES

- Height mm 1830
- Width mm 900
- Depth mm 793
- Overall dim. with open door mm 1501
- Overall dim. with open slide-in comp. mm 1205
- Loadless weight Kg 270
- Power supply voltage V∿230-240
- Power supply frequency Hz 50
- Absorbed power W 220

Maximum operating conditions:

- Room temperature °C 34
- Relative humidity % 65

Cooling system:

- Compressor refrigerating capacity W 502
- Ventilated evaporator
- Programmable defrost cycle

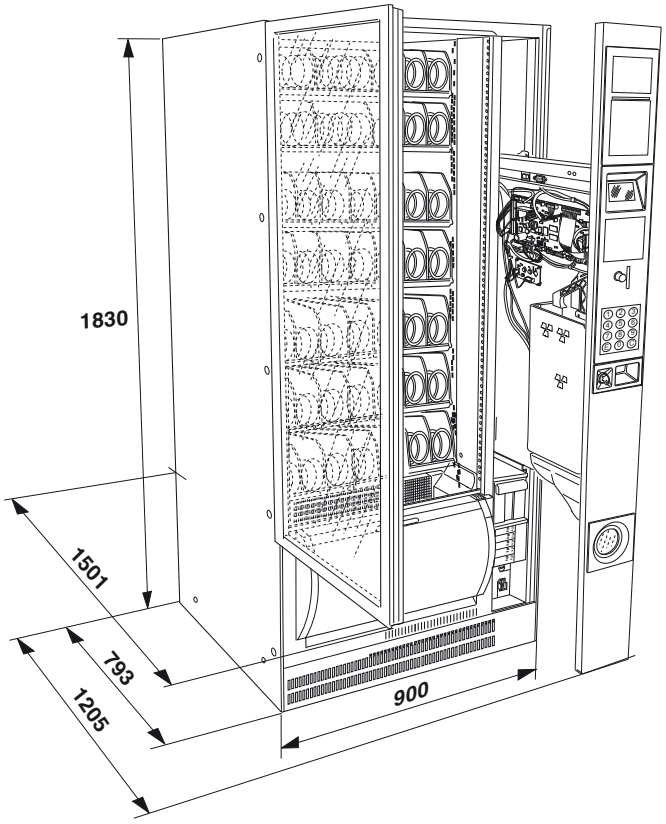


Fig. 2

NOISE LEVEL

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

PAYMENT SYSTEM

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

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

SALES PRICES

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

COIN BOX

You can also mount a cover and a lock.

CONTROLS AND SAFETY DEVICES

- payment system compartment switch
- maximum sales motor supply time
- compressor heat protection
- line fuses
- fuses on the primary and secondary transformer
- motor protection PTC
- safety temperature control for preserving food products

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.

The installer is the sole person responsible for any damage improper installation may cause to the machine or to things and people.

Important !!!

The use of kits not type-approved by the manufacturer can not guarantee the observance of safety standards, in particular for live parts.

The manufacturer declines all responsibility for the use of non type-approved components.

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 energy consumption is measured according to the EN IEC 63252 standard and is shown on the energy label supplied with the appliance.

VARIABLE COMBINATION LOCK

RS1 SERIES

The lock is complete with a silver key, with the standard combination, for opening and closing.

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.

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

To change the combination:

1. Open the door of the equipment to avoid having to force the rotation;
2. Slightly lubricate by using a spray inside the lock;
3. Insert the current change key (black) and turn it until you reach the change position;
4. Remove the current change key and insert the change key (gold) with the new combination;
5. Turn slightly several times the key without completing the rotation
6. Turn it until you reach the close position and remove the change key.

The lock has now assumed the new combination.

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

To keep a correct operation all over the time, it is recommended to lubricate the lock every 6 months.

Use spray lubricants for locks.

Other types of lubricants may trap dirt and dust, thus causing the lock to jam.

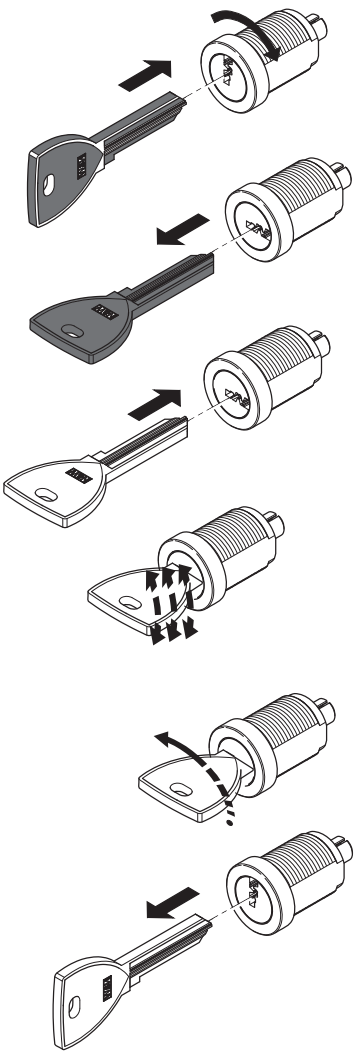


Fig. 3

503/536 SERIES

The lock is complete with a silver key, with the standard combination, for opening and closing.

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.

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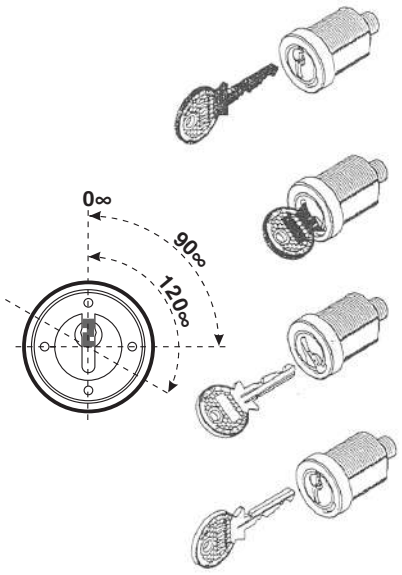


Fig. 4

Chapter 1
LOADING AND FILLING

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, CLEANING 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.

The vending machine is arranged to sell and dispense products that do need refrigeration to be preserved (food).

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

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 disclaims 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 will power off the electric installation of the equipment to service and clean on fully safe conditions.

Only the parts protected by covers and signalled 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.

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.

Keys Ⓔ and ⓪ are not available for the user. They are only used for programming.

The machine can have the following standard or optional components:

- Standard double or single spiral trays (maximum 7)
- Trays configured for dispensing bottles and cans
- Trays configured for dispensing sandwiches
- Display on trays (if any)
- Product passage photocells (if any)

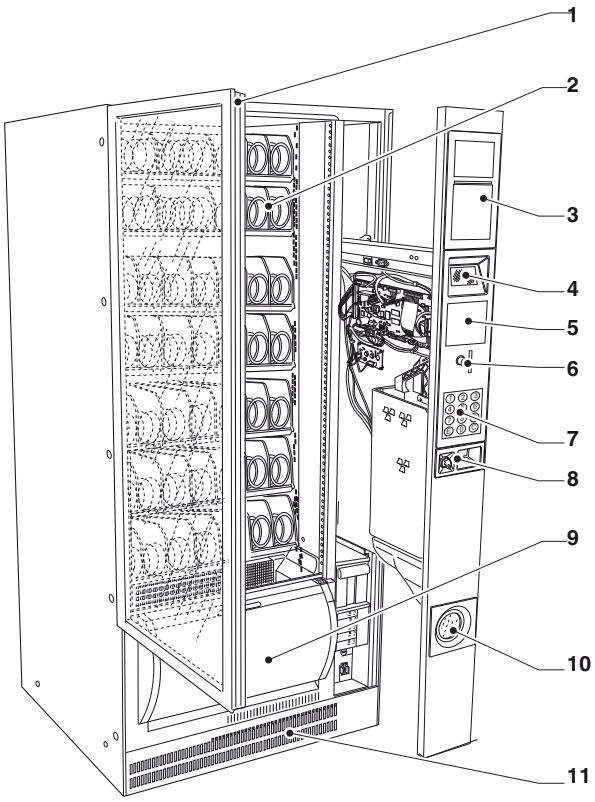


Fig. 5

1. Glassfront opening grip
2. Extractable trays
3. Advertising space
4. Display
5. Space for the cashless payment module
6. Coin insert and return button
7. Selection keyboard
8. Lock and handle intended to open the slide-in compartment
9. Dispensing compartment
10. Coin return door
11. Feet cover

STANDARD TRAYS

These trays can dispense most products.

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

Standard trays can be configured to:

- dispense snacks
  No special accessory is required to dispense snacks.

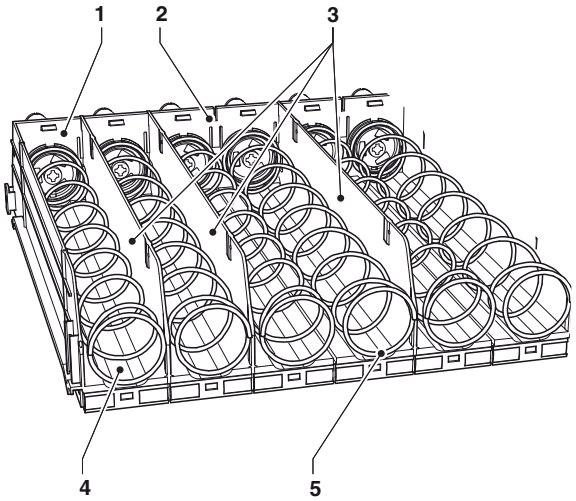


Fig. 6

1. Single compartment
2. Double compartment
3. Walls
4. Right-hand spiral
5. Left-hand spiral

- dispense thin products
  These compartments can be recognised by the presence of a spacer

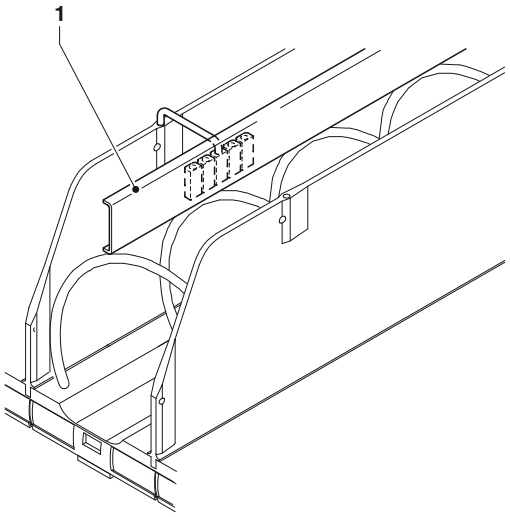


Fig. 7

1. Spacer

- dispense sticks of candies and alike.
  These compartments can be recognised by the presence of a spiral complete with a divider; these spirals rotate just by 180°, instead by 360°, thus doubling the compartment capacity.
  You can insert a divider even into spirals that are already present.

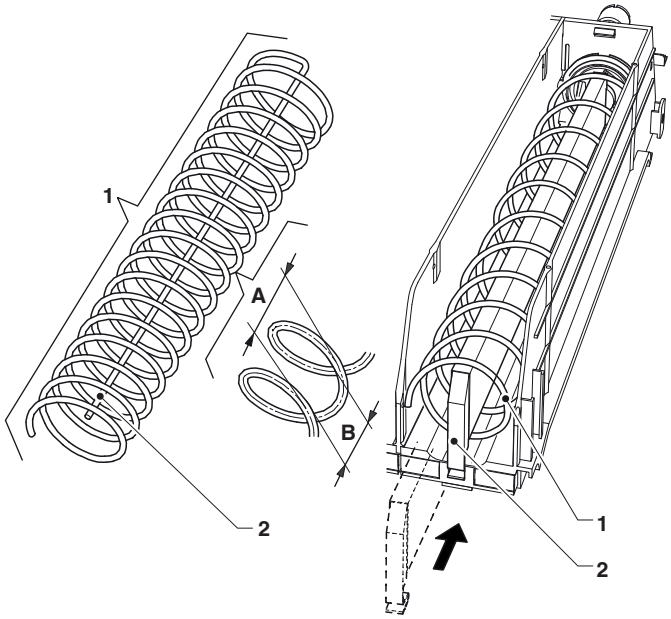


Fig. 8

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

- **dispense cans and tetrapacks**
  These compartments can be recognised by the presence of a product raised support; cans up to 69 mm in diameter and 0.2l tetrapacks can be dispensed from these compartments.
  Plastic bottles can be dispensed without any product raised support by loading the bottles up side down so that the cap slides in the compartment channel.

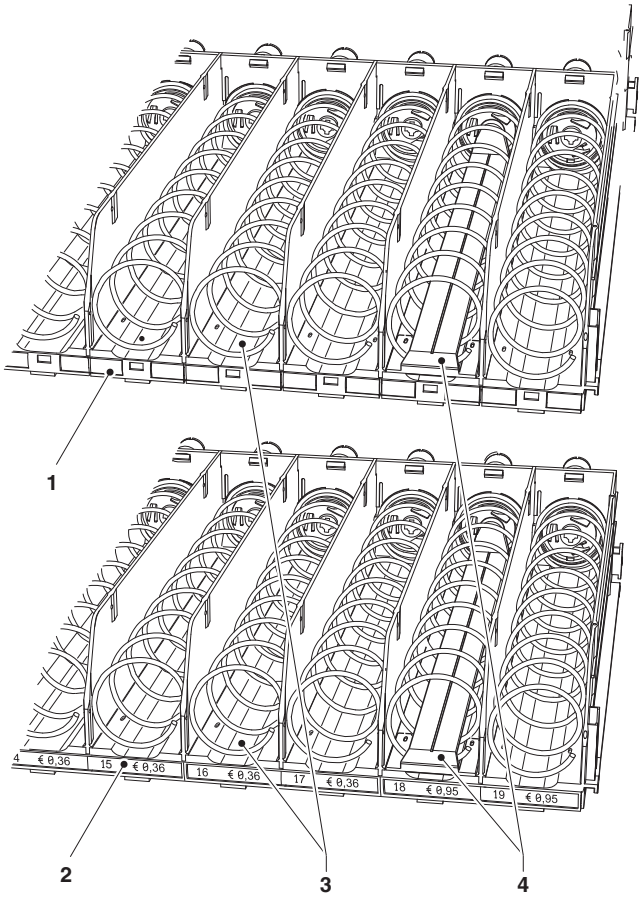


Fig. 9

1- Selection / price label support
2- Selection / price display (some models only)
3- Tray channel
4. Product raised support

BOTTLE TRAYS

These trays can be recognised by the presence of a retainer bridge for each compartment.
These trays enable the machine to distribute:

- 0.33/0.5/0.6 litre plastic bottles
- 0.375 / 0.5 litre cans
- 0.25/0.33 litre “slim” cans

vertically, thus improving the readability of the product label.

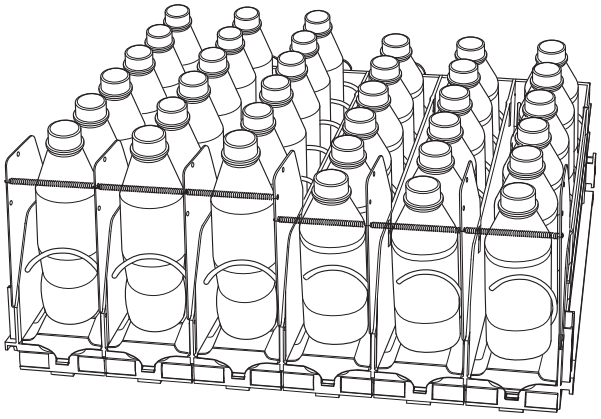


Fig. 10

SANDWICH TRAYS

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.

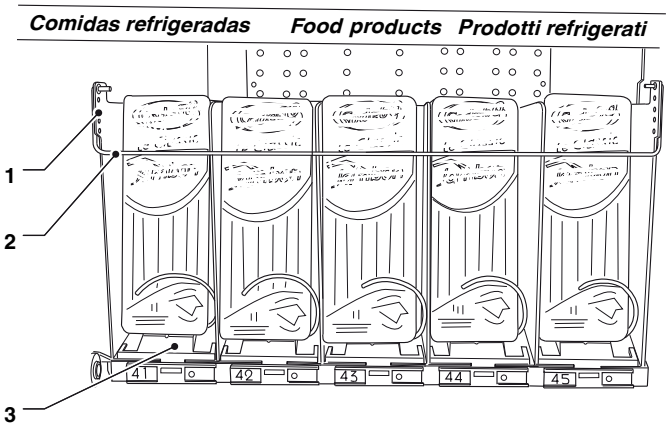


Fig. 11

1. Retainer bridge height-adjustment holes
2. Retainer bridge
3. Sandwich tray

LOADING PRODUCTS

Before loading products make sure that they have been preserved according to the producer's instructions for storage, preservation temperature and pull date.

Never insert any product that has been stored in a room at a temperature above 30°C

STANDARD TRAYS

Snack products

- Extract one tray at a time by lifting and pulling it
  The upper trays will tilt downwards to facilitate the loading cycle.
- 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 chute.
  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

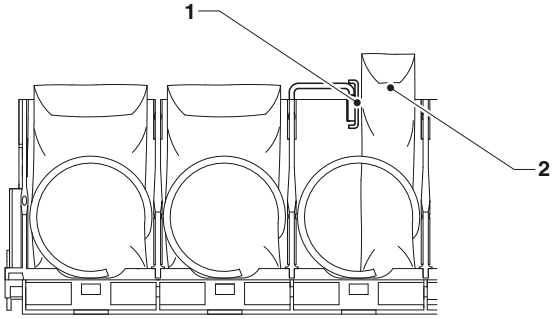


Fig. 12

1. Spacer
2. "Narrow" product

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.

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.

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 labels 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 labels 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.

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

BOTTLE / CAN TRAYS

Each compartment is configured to distribute different products according to the spring position.

To extract the tray, take it by its base; never take it by its springs or fastening brackets.

Have a look at the figure and the table here below to find out which product you can load in each compartment.

Spring position	Products to be loaded
1	0.33 - 0.25 "slim" cans 0.375 litre cans
2	0.33 litre bottles
3	0.6 litre bottles
4	0.50 litre bottles 0.5 litre cans
5	0.50 cl "slim" bottles

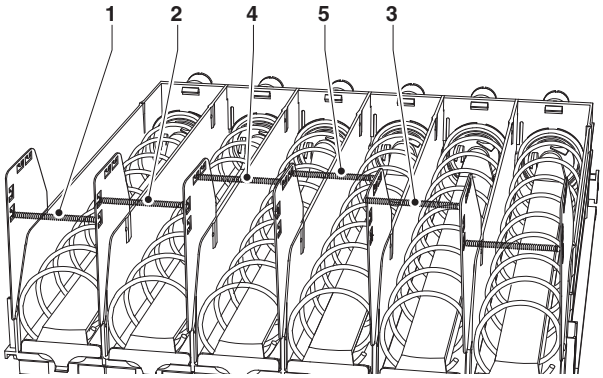


Fig. 13

Attention !!!

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

The following table has a general character. It includes the settings the manufacturer has experimentally determined for some of the most common types of products.

Load the bottles and cans vertically with the label turned to the glassfront so that the label can be recognised and the upper part arranged above the retainer spring.

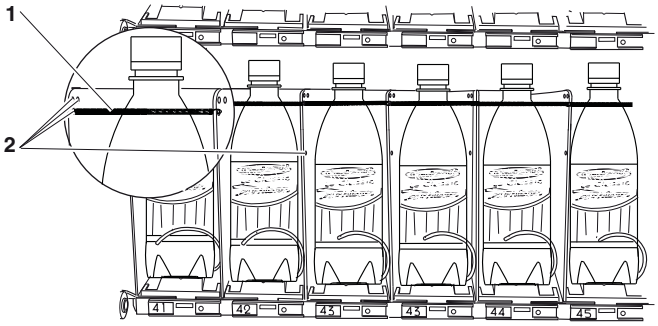


Fig. 14

1. Retainer spring
2. Retainer spring fastening holes

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 labels 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.

Attention !!!

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

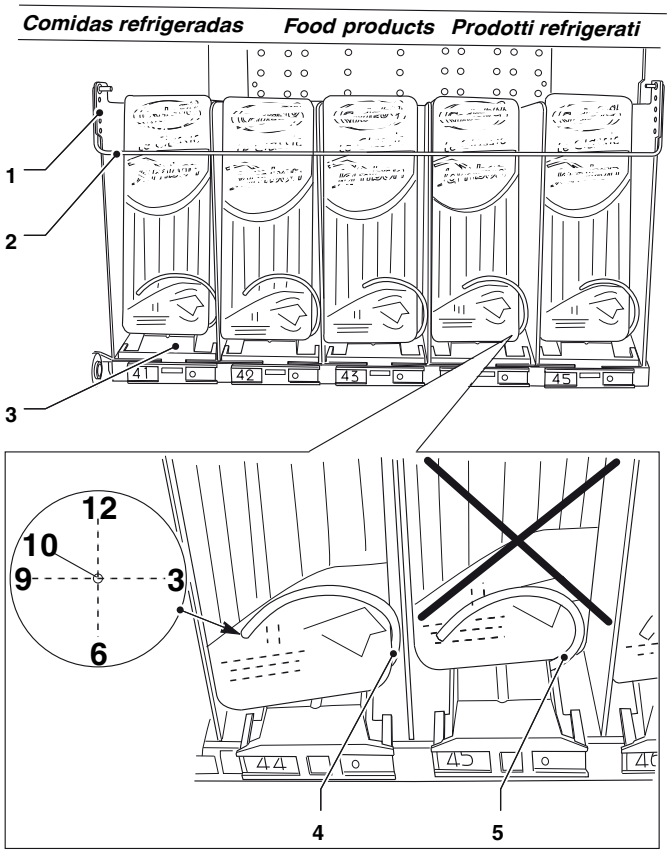


Fig. 15

1. *Retainer bridge adjustment holes*
2. *Retainer bridge*
3. *Sandwich tray*
4. *Right sandwich loading*
5. *Wrong sandwich loading*

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)

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 disclaims all responsibility for any damage caused by the non-observance 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

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 to be cleaned at regular intervals; it is recommended to use a lukewarm water solution and non aggressive detergents.

To clean metal parts, never user any product containing abrasive or corrosive substances.

The manufacturer disclaims all responsibility for any damage caused by the non-observance of the above or the use of aggressive or toxic chemical agents.

Attention !!!

To clean the machine, NEVER 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.

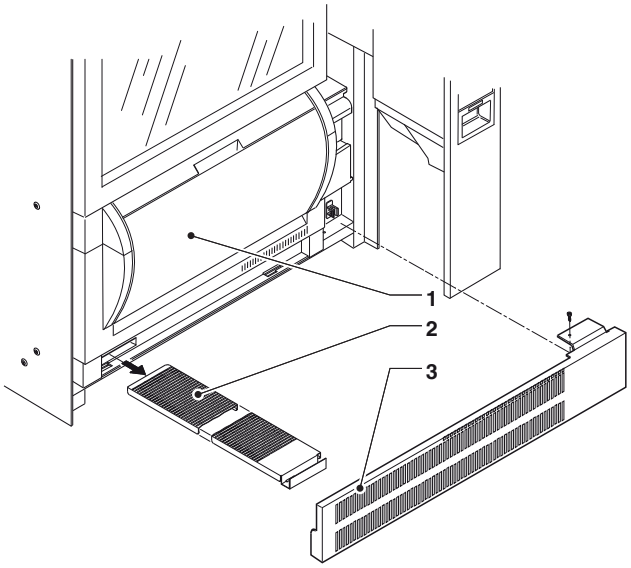


Fig. 16

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

Chapter 2
INSTALLATION

Installation and any subsequent maintenance operation must be carried out when the machine is live and, therefore, 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 installations:

- outdoors, it must be installed in a dry room at a temperature between 5° and 34°C;
- in a room where relative humidity is above 65%;
- 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 adjustable feet

MAIN SWITCH

A microswitch is assembled in the electric panel. 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 signalled by the label “power off before removing the cover” remain live inside the machine.

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.

Attention !!!

If you power on the machine when the door is open, the glassfront lighting is turned on: never look at any source of light directly.

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.

The machine is not suitable for installation outdoors. It must be installed in a dry room and **far from any source of heat** 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 maximum inclination shall not exceed 2 degrees. If necessary, level it by using the adjustable feet.

Attention !!!

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

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 chute according to the coin mechanism entrance;
- Loosen the fastening screws and adjust the lever intended to open the selector:

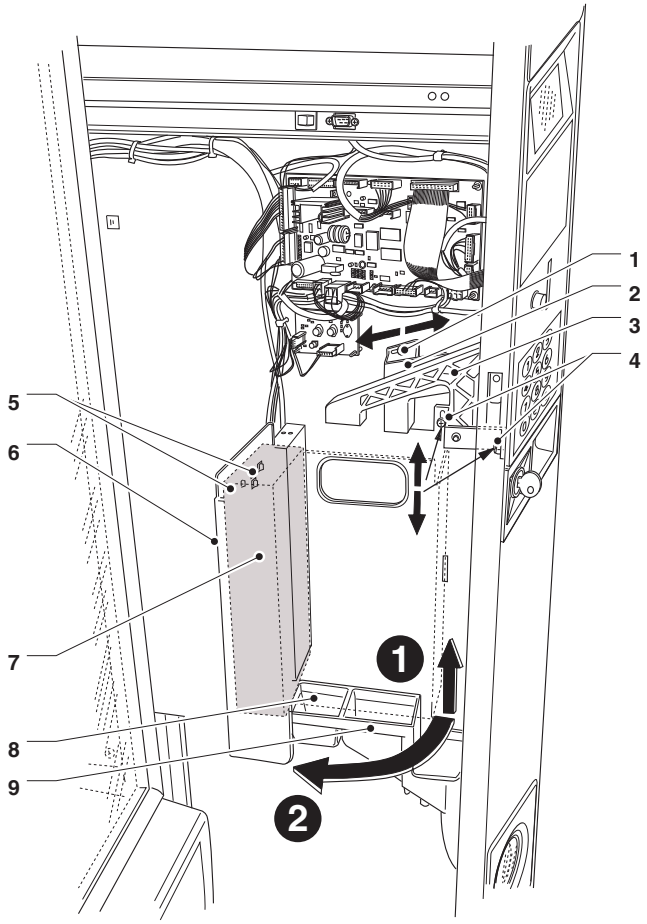


Fig. 17

1. Coin chute adjusting screw
2. Coin chute
3. Selector opening lever
4. Selector lever fastening screw
5. Coin mechanism fastening holes
6. Coin mechanism support plate
7. Coin mechanism
8. Coin insert chute
9. Coin return chute

ELECTRICAL CONNECTION

The machine is arranged for electrical operation at a 230-240 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 that the supply voltage value shall lie within the limits recommended for the connection points.

It is absolutely necessary to use a main switch in compliance with the installation rules in force, placed in an accessible position. It shall be featured in such a way that it can support the maximum load required as well as ensure complete disconnection from the mains on the conditions of overvoltage category III and, therefore, the protection of circuits against earth faults, overloads and short-circuits.

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 a flexible type with a fixed plug. If necessary, the connection cable shall be replaced by qualified personnel only by using only flexible cables of the H05 RN - F or H05 V V-F or H07 RN-F type, 3x1-1.5 mm^2 in cross-section.

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

The manufacturer disclaims all responsibility for any damage caused by the non-observance of the precautions mentioned above.

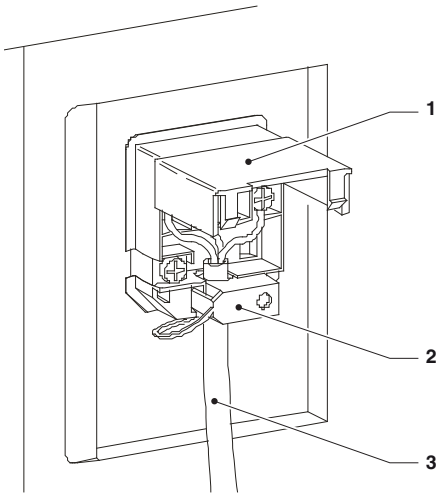


Fig. 18

1. Small lift cover
2. Cable clamp
3. Power supply cable

INTERNAL COMPONENTS

The evaporator unit on the shelf of the refrigerated box is composed by two fans, the evaporator, the air conveyor and the water retaining trap beneath the evaporator.

The C.P.U. (central process unit) board inside the payment system compartment is intended to manage the various functions of the dispensing machine.

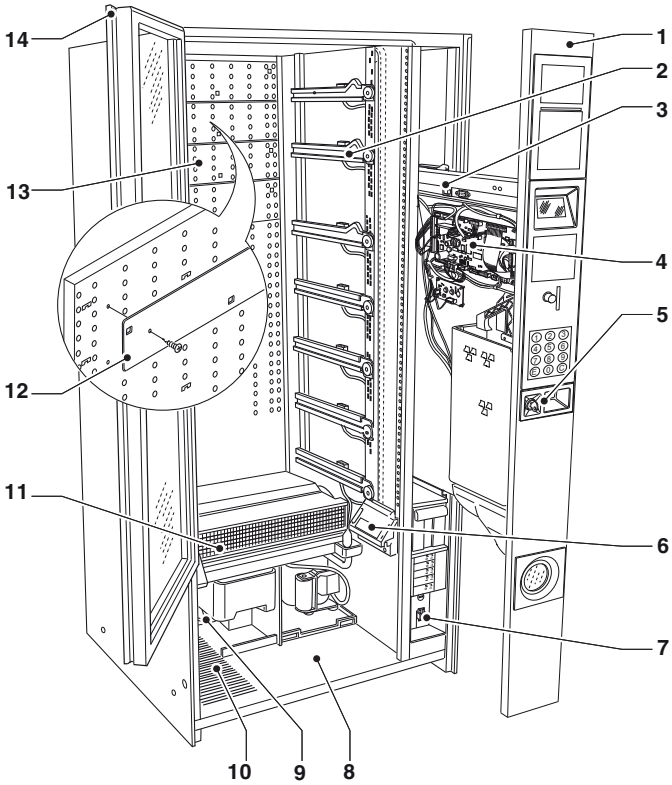


Fig. 19

1. Interface
2. Tray guides
3. Slide-in shelf
4. CPU board
5. Lock
6. Photocells (if any)
7. Main switch
8. Housing of the dispensing compartment
9. Cooling unit condenser
10. Ventilation grid
11. Cooling unit evaporator
12. Shutters
13. Cold air distribution grid
14. Glassfront grid

COOLING UNIT

The cooling unit is arranged at the bottom of the cabinet and activated by the relay placed in 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. 2 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 2 areas at various temperatures; 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 (if the food management is ON) or 5°C (if the food management is OFF) 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 programme

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

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 (if any)
- 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 non-observance of the precaution mentioned above.

Refill reset (if required)

The “refill code” is a 4-digit code used to reset the counters that manage the signalling of "ending products".

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

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

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

OPERATION

STANDARD 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 into the tray.

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.

DISPLAY ON TRAYS

Available for some models only.

The displays on trays can show:

- selection number
- price
- product code / name
- a promotional message (beneath the selection) or an “info” message (along the whole length of the tray).
  Messages are displayed in alternation with the number and the price of the selection.
- the selections (flashing on and off) that have performed an “extra” rotation to facilitate the product release or the latest “motor state” of the selection (motor locked, empty spiral, ...)
  These messages are displayed as soon as the machine is powered on and/or while loading products).

The display shows ∗-∗-∗-∗ in the following cases:

- when food selections are out of service because the safety temperature has been exceeded or the temperature set in the “food area” has not been reached.
- when the glassfront is not closed or the safety magnet micro is faulty.
- when the glassfront is open and the equipment is on and no spiral motor is detected.
- spiral motor not detected or selection out of service.

CONFIGURATION

To manage the displays properly, number the trays properly.

To number the trays, act as follows:

1. Open the glassfront and hold the door open signalling actuator down while powering on the machine.
2. Wait for the machine to carry out initial checks
3. Press and hold the programming key down (for 2 seconds); it is arranged on the right side of the tray display.
4. Release the programming key.
5. Press the programming key of the display once again to scroll numbering (the display of the tray shows 1, 2, 3, ...) and set the tray number.
   Upper trays are lower-numbered.

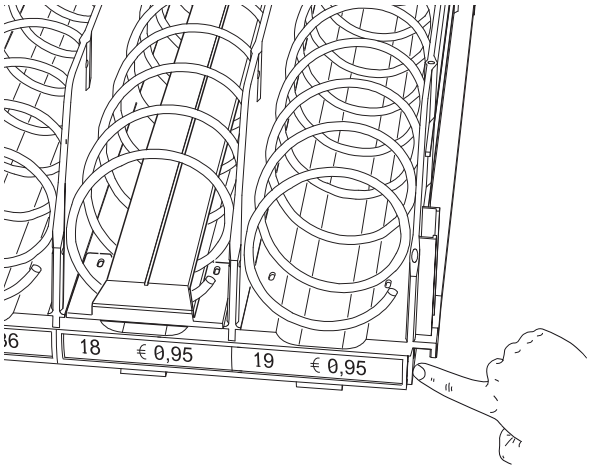


Fig. 20

PROMOTIONAL MESSAGE SETUP

Promotional messages (maximum 5) can be set and associated with every single selection with the functions relative to the “electronic labels” of the Technician menu. vedi “etichette elettroniche (display prezzi)”.

As an alternative, promotional messages can be set up and associated with the selections by means of an EVADTS file with the following syntax:

*MC5*EPD_PRO_MSG*NUMERO_MSG*MESSAGGIO*SEL1*SEL2**

Where:

- number_msg: it is the message number (max. 5)
- message: it is the body of the message to be displayed (12 characters for spirals, 71 and 87mm in diameter, 9 characters for spirals, 55mm in diameter)
- sel1 and sel2 are the number of the selections to be associated with the promotional message.

for instance:

*MC5*EPD_PRO_MSG*2*PROMOZIONE*13*33*43*73*

will display message 2 “promotion” beneath selections 13, 33, 43 and 73.

INFO MESSAGE SETUP

the “info” message can be set only by means of an EVADTS file with the following syntax.

*MC5*EPD_MSG_INF*NUMERO MSG*ABILITAZIONE*MESSAGGIO*

Where:

- msg number: it is the “info” message number (from 1 to 5).
- enable: value 0 (zero) disables the message; value 1 enables the message.
- message: it is the body of the message to be displayed; the message is displayed in the middle of the tray.
  If the first character is a space, the message will be aligned on the left.

for instance:

*MC5*EPD_MSG_INF*3*1*PRODOTTI SENZA GLUTINE”*

will display message 3 “gluten-free products” on all trays.

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, 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.

Normal operation mode

- The machine is powered on (the door is closed) and all checks are performed.
- Operations that can be carried out when the door is closed.
- The selection is dispensed and messages are displayed for the user.

Filler menu

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

Technician menu

- The setups and the performances of the machine are programmed.

NAVIGATION MODE

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

DISPLAY

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.

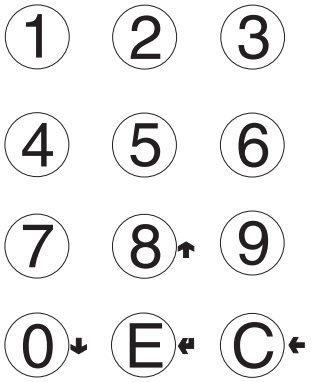


Fig. 21

POWER ON

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

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.

REFILL RESET (IF REQUIRED)

The “refill code” is a 4-digit code used to reset the counters that manage the signalling of "ending products".

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

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

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

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.
- If the machine is complete with a payment module and you insert some coins or a payment system, the credit still available will appear on the display
  To dispense, select the number corresponding to the product you wish by using the numeric keyboard.
- At the end of the dispensing cycle, the message requiring the user to take the product will appear on the display for some seconds and the machine will get ready for another delivery.

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

FILLER MENU

Press the programming button on the machine door once to set the machine to the “filler menu” mode.

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

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

Press the Enter key ↵ to access the menu.

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

Press the keys ↑ and ↓ to scroll the menu items:

STATISTICS

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

PRINT

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

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

TOTALS

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 operator 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 shows the “Running” message during the operation and statistics are reset.

INDIVIDUAL PRICE

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

This function is active only if this operation can be carried out by the payment system you have set up.

Access the function to manually load or empty the change tubes.

If you confirm loading,

“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 validator, the display will increase the value of the money made available in the tubes for the change.

If you confirm unloading, 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

Set up the following parameters from this group of functions:

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 (from 70 to 79).

In case of banks with two slaves working with three-digit selections, the first digit (0 or 9) is automatically displayed.

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 has failed (with BDV and Executive payment systems only).

For the other payment systems (MDB or Validator), you can establish whether to return the whole amount or not for each kind of selection.

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

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 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

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

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:** the display shows the key to be pressed, if the required key can properly work, the key under test will be the next one.
- **Temperature:** To display the temperature value measured by the probe.
  In case of interruption of the electric connection of the probe, -11.0 will appear
  In case of a short-circuit of the probe, 41.0 will appear.
- **Buzzer:** A series of sounds is produced to check the operation of the acoustic signaller.
- **Compressor:** Press keys ↵ 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.
- **LED lighting:** all LED's are powered on to light up the glassfront.
  Never look at any source of light directly during the test.

TEMPERATURE TEST

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

START TEST

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

Press the Enter key ↵ to display the

test progress and the number of acquisitions made.

The machine is available for the other functions

during the temperature test.

PRINT TEMPERATURE

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

To print the stored data, act as follows:

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

STOP TEST

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

-

EVADTS

The EVA DTS (European Vending Association Data Transfer System) communication protocol can provide for the communication between the machine and the data transfer terminal:

CONNECTION

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

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

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

- Press the Enter key ↵ to access the menu.
- Press the Exit key ← to go back to the previous menu.
- Press the keys ↑ and ↓ to scroll the menu items.

Notes:

Press key ←to go back to the Filler mode from any first-level function.

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: Validators, Executive, BDV, MDB.

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.

DECIMAL POINT POSITION

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.

BOOKING TIME

To set up for the cash payment how long the machine displays the residual credit necessary to dispense the selection (7 seconds by default).

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.

CREDIT PROGRAMMING (OVERPAY)

You can decide whether:

- to cash the credit exceeding the selection amount after a well-defined time interval in seconds (parameter “deleted 000”)
- to leave the credit exceeding the selection amount at disposal for a subsequent selection (parameter “maintained”)

EXECUTIVE

COIN MECHANISM VERSION

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

- Standard
- Price holding
- UKEY (Price holding price display)

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.

BOOKING TIME

To set up for the cash payment how long the machine displays the residual credit necessary to dispense the selection (7 seconds by default).

BDV

The BDV protocol menus 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.

BOOKING TIME

To set up for the cash payment how long the machine displays the residual credit necessary to dispense the selection (7 seconds by default).

TYPE OF DISPENSING.

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.

CREDIT RETURN (ESCROW LEVER)

Used to enable/disable the credit return (by pressing the change return key) 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

Use this function 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.

CHANGE COINS 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 change equation

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

Use this function to enable or disable the buttons arranged on the coin mechanism in order to discharge the coins in the change tubes.

C.P.C. 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).

Exact change (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 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 position

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.

Booking time

To set up how long the machine displays the residual credit necessary to dispense the selection (7 seconds by default).

Type of dispensing.

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

Use this function 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.

Bills accepted

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

For the bill/value correspondence check the reader configuration.

Coins accepted for exact change

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.

Bills accepted for exact change

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

For the bill/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.

Residual credit

You can decide whether to cash any credit exceeding the selection amount after a well-defined time interval (deleted later) or to leave it at the user’s disposal (maintained).

Cash-sale command

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

Use this function to enable the presence of a validator or parallel bill reader to recharge the keys.

Exact change equation

To choose among 15 different control algorithms to enable the machine to give the change at the end of the selection.

Every single algorithm checks a series of requirements (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.

The “No change” condition occurs when the tubes assigned to the chosen algorithm have achieved the minimum level of coins (“minimum tube level” parameter).

Maximum cashless key credit

Use this function 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 key recharged

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).

UNDEFINED CREDIT CASH

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

USER GROUPS

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 the list by default.

AGE CONTROL

The function is used to enable - either globally or individually - the dispensing cycle of a selection / product after having checked the anagraphic age of the person who has requested for the selection with the one programmed.

For a correct operation install a chipcard reader.

Upon request for a selection / product, the machine:

- will require the user to insert his/her personal chipcard into the reader
- check the anagraphic age detected from the personal chipcard with the one programmed.
- If the anagraphic age is above the one programmed, the machine will dispense the selection / product

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 per selection, which can be active according to the time band you have set (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.

VM 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.

In case of power failure, the machine keeps the set up date and time by means of a buffer battery.

COOLING PARAMETERS

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

COOLING 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 value during the operation in degrees °C (from 3.5 to 20°C).

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 environmental humidity and the number of times the door is opened.

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

FOOD MANAGEMENT

Function active for food models only.

The machine is arranged to manage the dispensing cycles of refrigerated foodstuffs from the 4 trays at the bottom.

- OFF: Food management disabled
- ON: The safety temperature control (3.5°C by default) is active, the time required to reach the temperature (pulldown) 45 minutes by default and you can define the tray range for control.
- CUSTOM: Use a password (1111 by default) to enable the control and customise the safety temperature value (from 4 to 15°C) and the "pulldown" time (from min. 45 to max. 360 minutes) and to modify the password for custom food management.
  The customisation of parameters might be the source of danger in terms of food safety.
  Those who have set up such parameters will be the sole responsible for any damage the improper customisation of such parameters may cause to people.

After having decided to activate the standard or custom food management, you are required to enter the number of trays with the "food" management.

The sale of "food" products is stopped when:

- The refrigerated box temperature is above the threshold value for over 15 minutes in the normal operation mode.
- The refrigerated box temperature is above the safety value if you power on the machine and if the door is not opened before.
- The temperature setpoint of the refrigerated box is not reached after 45-minute operation after the door has been closed; at the expiry of this time, the dispensing cycle of food products is locked

No control is carried out any longer if the function is deactivated and you can set the refrigerated box temperature between 8°C and 20°C on all trays.

TEMPERATURE RECORD

The inner temperature is stored every 10 minutes. Use this function to read date, time and recorded temperature.

DB MANAGEMENT

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

DB 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 DB CUSTOM

For machines with the RAM expansion board only.

To save a copy of the current configuration of the machine on a CPU board memory (backup) before customising

RESTORE DB CUSTOM

To restore the machine configuration you have customised and saved before by means of the “Save DB custom” 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 machine messages among those made available by the software.

SECOND LANGUAGE

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

USER DISPLAY

To enable/select the type of information you wish to display during the normal operation mode.

The information you can display is supplied here below:

- Temperature in the refrigerated box
- Time-table

PROMOTIONAL MESSAGE SETUP

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 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

CONTRAST REGULATION

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

CURRENCY SYMBOL

To enable the currency symbol set up during the credit display (€, $ or £)

ELECTRONIC LABELS (PRICE DISPLAY)

Electronic labels are arranged on some models only.

Electronic labels display the number and the price of selections; in some cases, they can display some messages for promotion / information.

ENABLE

To enable the management of electronic price displays.

PROGRAMMING

To send the “display” command to the tray displays that are being programmed (see the paragraph “operation of tray displays”)

PROMOTIONAL MESSAGE

To write / customise the messages to be displayed beneath selections.

PROGRAMMING THE PROMOTIONAL MESSAGE

To enable and associate a promotional message for each selection.

In the normal operation mode, this message is displayed (in alternation) with the number and the price of the selection.

Food management

Password

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

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

From this group of functions you can enable and set up the password.

Spirals/selections

From this group you can set up the parameters of selections

Spiral parameters

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 (from 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 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

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.

The selections may be even made on different trays, provided that they are in sequence; products are alternatively distributed by each one of the grouped spirals.

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.

Maximum product number

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

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

Use keys ↑ and ↓ to enter the value.

Press key ↵ to store the setup.

Minimum product number

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

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

Use keys ↑ and ↓ to enter the value.

Press key ↵ to store the setup.

CAM ALIGNMENT

To re-position the spirals that have performed an "extra"

rotation to dispense the product.

EXECUTE NOW

Press the Enter key ↵ to align spirals immediately (motor rotation)

EXECUTE AT THE START-UP

To activate the request for spiral alignment (motor rotation) at the next power-on of the machine.

At the next power-on of the machine, the display shows the message requiring the user to press the "programming" key necessary to access the function for cam alignment for 10 seconds.

Press key ↵ to activate the alignment or key ← to cancel.

If the "programming" key is not pressed within 10 seconds, the machine will switch to the normal operation mode without any cam alignment.

ROTATION TIME CONTROL

To enable/disable the rotation time control of the spirals.

If the control function is enabled, the machine puts the spirals with a rotation time longer than the pre-established one (timeout) out of service.

Some “heavy” products (e.g. bottles, cans, etc.etc.) can slow down the rotation of the spiral.

The symbol ● means that the control is enabled.

If the control function is disabled ○, the machine does not put the spirals with a rotation time longer than the pre-established one (timeout) out of service.

For instance:

		Tray						
Tray	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
1		●		●		●		●
2		●	●	●	●	●	●	●
3	●	●	●	●	●	●	●	●
4	●	●	●	●	●	●	●	●
5	○	○	○	○	○	○	○	○
6	○	●	●	●	●	●	●	●

Tray 1 has double selections and the control function enabled.

Tray 6 has the control function disabled on the first spiral only (e.g. to dispense cans)

Tray 5 has the control function disabled on all spirals (e.g. tray intended to dispense bottles)

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 each spiral for further arrangement for normal rotation;
- 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

To save electric energy whenever the machine is not used, you may choose among the following energy saving profiles:

Energy Saving “On”: use this profile to suspend the vending machine service and to turn off the glassfront lighting in the time intervals you have set up; the compressor continues to work normally.
2 time bands for service interruption can be programmed for each day of the week; the days of the week are identified by a progressive number (1=Monday, 2=Tuesday, etc.).
For example, if you wish to set up the energy saving bands to have products dispensed from 07.00 a.m. to 10.00 p.m. during the days of the week and inhibit sale on Saturdays and on Sundays, the bands shall be set up as it is shown by the table.

When the "energy saving" band has tripped, selections are not available and the glassfront lighting is turned off; the display shows “SERVICE INTERRUPTED” and the time at which the service will be resumed.

- **Energy Saving “sleep mode”**: use this profile to turn off the LEDs intended to illuminate the glassfront 10 minutes after the machine has stopped working.
  Upon request for a selection, lighting is activated and the required product dispensed.
  The compressor continues to work normally.
- **Energy Saving “light off only” :** use this profile to turn off the LEDs intended to illuminate the glassfront during the time intervals set up whereas the compressor continues to work normally.
  Upon request for a selection, the machine will dispense a product without turning on the glassfront lighting.

Machine lighting out of service

To define whether to turn on or off the illumination of the machine when the machine is out of service or the “Energy saving” time band has tripped.

VM serial number

The function is used to change the eight-digit numeric code identifying the machine (00000000 by default).

Programming the operator code

When the display is set to the "Operator Code" function, you can change the six-digit numeric code identifying groups of machines (0 by default).

Installation date

The function is intended 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.

Setup

Use this function to set up the hierarchies of the master / slave1 / slave2 relations between connected vending machines.

This machine can be configured as a “Master”, i.e. controlling the second machine, or as a “Slave”, i.e. controlled by the other machine.

Moreover, set the numbering for 2-digit (XX) or 3-digit selections (0XX; 9XX)

The master/slave function is not enabled by default.

Slave price holding

If the Executive payment system is set to “Price Holding”, use this function to set up the same mode even in the slave machine software.

Virtual price return

If the payment system is set to the BDV and/or Executive protocol and in case of combined or virtual selections (whose relative menus are made available on slave machines), use this function to establish whether to retain (OFF) or not (ON) the partial amount if the second selection / dispensing cycle should fail.

Reset minislave

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

Monitor slave

Use this function to scroll all information on any slave, if connected.

After setting up this function, power on the “slave” machine to sequence-display the slave information about:

- Software release
- Type of slave (XX, 0XX, 9XX)
- Presence of the photocells intended to detect the dispensing cycle
- Number of trays and drawers
- Presence of the device intended to prevent the dispensing compartment from opening
- Temperature measured by the internal probe

To quit the function, power off the “master” machine.

Display slave information

Use this function to display the instantaneous temperature of the “slave” machine, if connected.

TEST

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

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:** the display shows the key to be pressed, if the required key can properly work, the key under test will be the next one.
- **Temperature:** To display the temperature value measured by the probe.
  In case of interruption of the electric connection of the probe, -11.0 will appear
  In case of a short-circuit of the probe, 41.0 will appear.
- **Buzzer:** A series of sounds is produced to check the operation of the acoustic signaller.
- **Compressor:** Press keys ↵ e ← 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 keys ↵ and ← to lock and unlock the opening of the compartment.
- **LED lighting:** all LED's are powered on to light up the glassfront.
  Never look at any source of light directly during the test.

TEMPERATURE TEST

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

START TEST

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

Press the Enter key ↵ to display the

test progress and the number of acquisitions made.

The machine is available for the other functions

during the temperature test.

PRINT TEMPERATURE

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

To print the stored data, act as follows:

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

STOP TEST

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

STATISTICS

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

ELECTRONIC COUNTER

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.

RESET THE ELECTRONIC COUNTER

You can reset the electronic counter.

DISPLAY VENDS AT THE START-UP

To enable / disable the display of the total number of dispensing cycles that have been made since you last reset the statistics, while you are powering on the machine.

EVA DTS

The two codes used to identify the machine and recognise the data transfer terminal are established by the EVADTS (European Vending Association Data Transfer System) communication protocol:

COMMUNICATION PROTOCOL

Use this function to decide which communication protocol to use for the communication of the data acquisition device.

The communication protocols made available are:

DDCMP ENHANCED

with the following configurable parameters:

- it is a four-digit alphanumeric code (0-9; A-F) that shall be the same as the one of the data transfer terminal for identification. Set to 0000 by default
- Security code: it is an alphanumeric code for mutual recognition between machine and EVA DTS transfer. Set to 0000 by default
- End-of-transmission: if enabled, it can recognise the end-of-transmission signal sent to the last package and interrupt data transmission.

DEX/UCS

No configurable parameter is expected for this protocol:

DATA TRANSMISSION

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

- "RS232" and "IrDA": for communication with acquisition devices
- "Always EVADTS" for communication with data acquisition and transmission devices (telemetry)

TYPE

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

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

BAUDRATE (TRANSMISSION SPEED)

To set the transmission speed for communication (2400, 4800, 9600, 19200 bps).

Set to 2400 bps by default

CONNECTION

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

REFILL ENABLE

For models with a data transmission system only.

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

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

DELETE

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

- selections
- discounts
- failures
- coin mechanism data

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

Press the Enter key ↵ to reset the statistics. The display shows the "Running" message during the operation and statistics are reset.

DISPLAY STATISTICS

It displays the data stored for the machine operation either globally (all data) or partially (some data only).

TOTAL COUNTERS

1 - counter by selection (single and total);

2 - counter by band;

3 - failure counter

4 - coin mechanism data (audit and cash collected);

PARTIAL COUNTERS

1 - counter by selection (single and total);

2 - counter by band;

3 - failure counter

4 - coin mechanism data (audit and cash collected);

DELETE STATISTICS

It resets the data stored for the machine operation either globally (all data) or partially (some data only).

- selections
- failures
- coin mechanism errors

Press the Enter key ↵ to display the request for confirmation.

Press the Enter key ↵ to reset the statistics. The display shows the “Running” message during the operation and statistics are reset.

DISPLAY RELATIVE STATISTICS

Press the Enter key ↵ to sequence-display the data stored, i.e.:

1 - counter by single selection;

2 - counter by band;

3 - failure counter

4 - Coin mechanism data.

DELETE RELATIVE STATISTICS

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

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

Press the Enter key ↵ to display the request for confirmation “Do you confirm?”, flashing on and off.

Press the Enter key ↵ to display the "Running" message for some seconds and statistics are reset.

PRINT STATISTICS

It prints the data stored for the machine operation either globally (all data) or partially (some data only).

TOTAL COUNTERS

1 - counter by selection (single and total);

2 - counter by band;

3 - failure counter

4 - coin mechanism data (audit and cash collected);

PARTIAL COUNTERS

1 - counter by selection (single and total);

2 - counter by band;

3 - failure counter

4 - coin mechanism data (audit and cash collected);

Connect an RS232 serial printer having 9600 baud rate, 8 data bits, no parity, 1 stop bit with the serial connector on the button board to print all the statistics described in the paragraphs “display general statistics” and "display relative statistics”; the machine code as well as the software date and release will be also printed.

Statistics can be printed either relatively or totally.

To connect the printer, act as follows:

- press the Enter key ↵ to display the request for confirmation “Do you confirm?”;
- connect the printer before confirming;
- press the Enter key ↵ to start printing
-
-

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 + bills)
- Aud 9 Bills cashed
  Value of the bills 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.
-

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
-

COMMUNICATION

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

UP-KEY

SETUP MANAGEMENT

UPKEY -> VENDING MACHINE

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

VENDING MACHINE ->UPKEY

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

Please specify the name you wish to assign to the file (e.g. VENDM000.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. VENDM000.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.

V.M. SELECTION.

To univocally identify the machines acting as "slave" (data are sent to the "master" machine by means of a modem).
Number 0 identifies the "master" machine

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. The failures managed by the software may be related to functional groups not available on the specific model. However, they are listed in scrolling menus.

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, press key ↵ to display “Failure end”.

Possible failures are listed here below:

- **Compressor**: the machine stops if the compressor is working for over twenty-four consecutive hours.
- **Coin mechanism**: he 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.
  The machine continues to work, but it is recommended to initialise as soon as possible.
- **Probe**: The machine stops after 5 minutes if the probe is found out to be electrically interrupted (the display shows -11°C).
  The machine stops after 1 hour if a probe short-circuit is found out (the display shows +41°C).
-

- **Motor error**: The machine displays all faulty motors.
  Faulty motors are displayed every 1 second.
  Note: if you power on the machine again, any faulty motor is found out as not available.
- **Dispensing compartment lock**:
  - If the function “compartment release upon dispensing” is enabled, the fault is signalled if the closing device is not released and locked within a well-defined time interval after the selection once again.
  - If the function “out of service if open” is enabled, the failure to lock the closing device is displayed to lock the operation of the machine.
  - If the function “out of service if open” is disabled, the failure to lock the closing device is displayed.
- **Safety temperature:** the temperature of the disks 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.
- **Machine board**
  No communication between the machine and the CPU board.

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.

Motor state

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.

Failure history file

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

Failure history file reset

Confirm the function to reset all the failures in the list "Failure history file".

Chapter 3
Maintenance

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

Never forget to power off the machine before carrying out any maintenance operation requiring the disassembly of components.

The operations described here below shall be performed by specialised personnel only, trained on the use of the machine and informed on the specific risks in terms of electric safety and hygiene rules.

If you power on the machine when the door is open, lighting is turned on: never stare at any source of light.

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

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

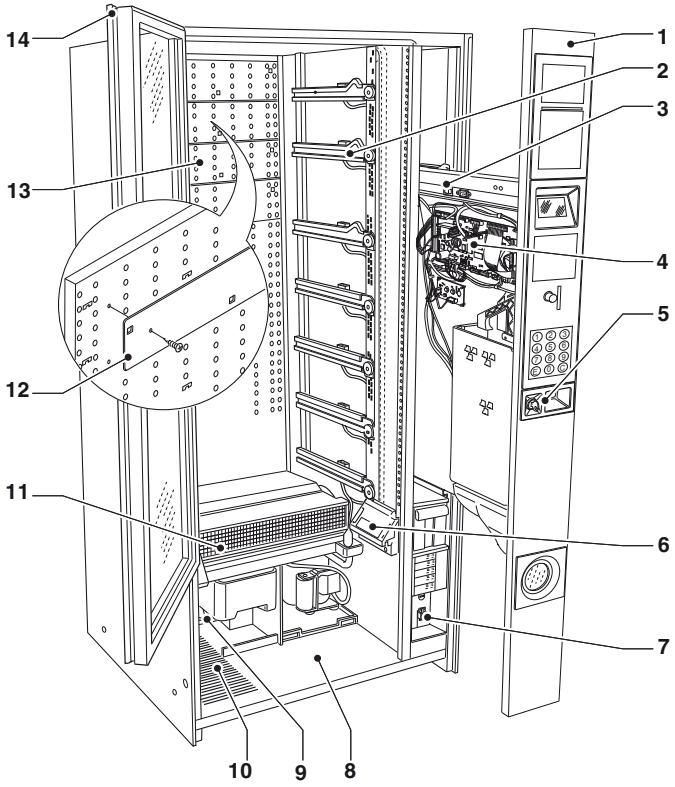


Fig. 22

1. Interface
2. Tray guides
3. Slide-in shelf
4. CPU board
5. Lock
6. Photocells (if any)
7. Main switch
8. Housing of the dispensing compartment
9. Cooling unit condenser
10. Ventilation grid
11. Cooling unit evaporator
12. Shutters
13. Cold air distribution grid
14. Glassfront grid

CONFIGURATION OF TRAYS

PRODUCT SPACER

The spacers must be used to load thin 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.

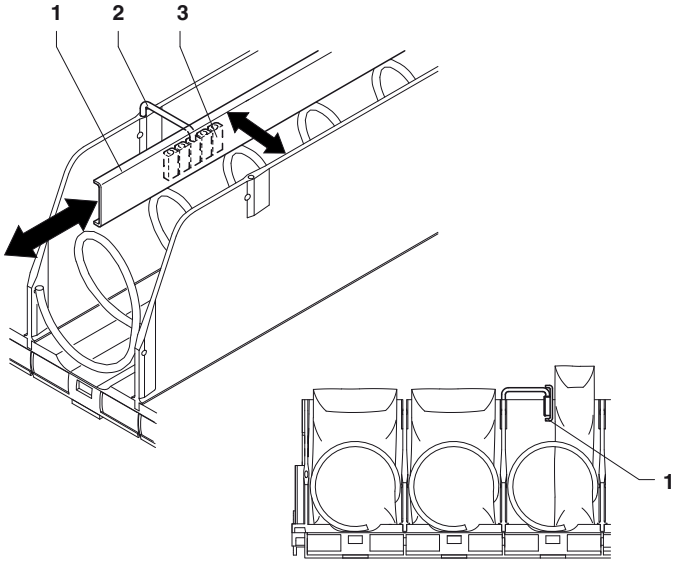


Fig. 23

1. Product spacer
2. Bracket
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.

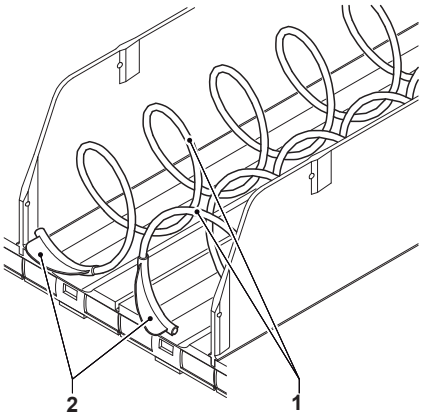


Fig. 24

1. Spirals
2. Ejectors

PRODUCT DIVIDER

To dispense sticks of candies or alike, you can double the 75 mm compartment capacity by using a spiral complete with a divider.

The spiral rotation shall be set to 180° instead of 360°.

You can also insert a divider into already-existing spirals.

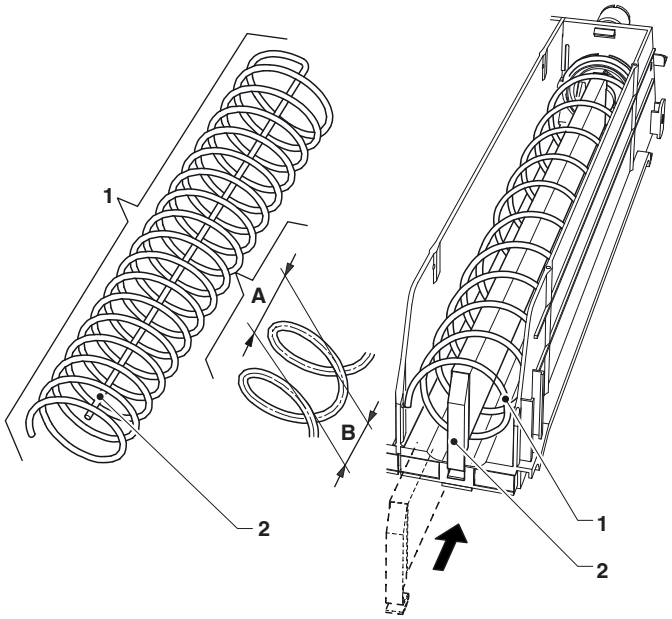


Fig. 25

1. *Spiral for 180° rotation*
2. *Divider for 180° rotation*
3. *Spiral*
4. *Spiral pitch*
5. *Maximum product size*

PRODUCT RAISED SUPPORT

It is recommended to use a product raised support to dispense cans or 0.2L tetra-packs.

Assemble the product raised support as it is shown by the figure. Make sure that the spiral is properly positioned.

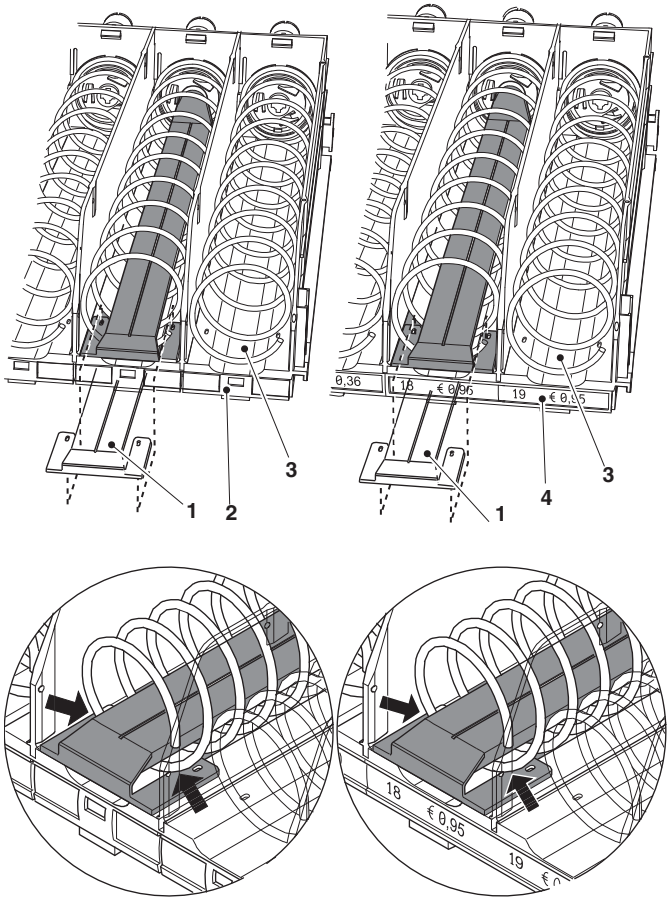


Fig. 26

1. *Product raised support*
2- *Selection / price label support*
3. *Compartment channel*
4. *Selection / price display*

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 compartment channel.

5.

CONFIGURATION OF TRAYS

The configuration of the spirals on each tray can be changed.

To shift from two single compartments to a double compartment, act as follows:

- Remove the tray to be modified.
- Remove the wall separating the two single compartments 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 (0-10).

The selection number to which the motor is connected will therefore be formed by the tray number plus the

wire code number.

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:

- extract the trays where you have fastened the heat separators and remove all fastening screws..
- remove the 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

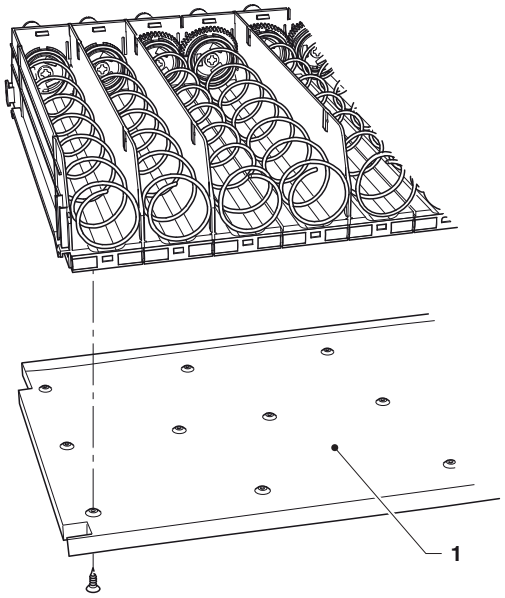


Fig. 27

1. Heat separator

REPLACING 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 at a step of 22.5 degrees 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 placed at the bottom and in the middle.

If the tray is a standard one, it is impossible to have compartments with spirals having a different diameter on the same tray.

A special kit enables the operator to have compartments with spirals having a different diameter on the same tray; the kit enables the operator to regulate motors vertically.

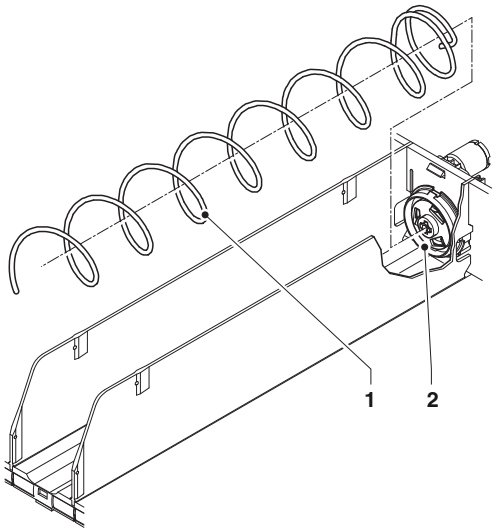


Fig. 28

1. Spiral
2. Plastic flange

If the pitch and sense of spirals are known, the table here below will help you calculate the maximum size and the number of dispensable products.

Spiral sense and pitch (mm)	product size (mm)	Spiral products
Variable pitch right 75/79/83	71/75/79	6
Variable pitch right 80/95	76/91	5
right/left 115	111	4
right/left 100	96	5
right 95	91	5
right/left 80	76	6
right/left 64	60	7
right/left 54	50	8
right/left 46	42	10
right/left 40	36	11
right/left 34	30	13
right/left 30	26	15
right/left 24	20	19

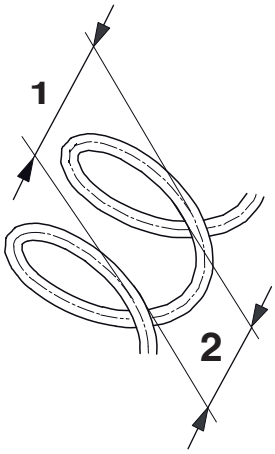


Fig. 29

1. Spiral pitch
2. Maximum product size

REMOVING TRAYS

To replace the tray, act as follows:

- pull the tray as far as the limit stop;
- detach the electrical connector from the tray;
- lift the tray to unlock the retaining chute.
- act in the reverse order to assemble another tray.

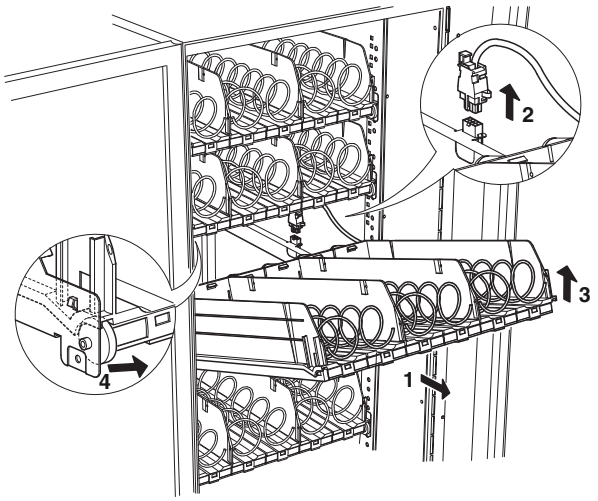


Fig. 30

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 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.

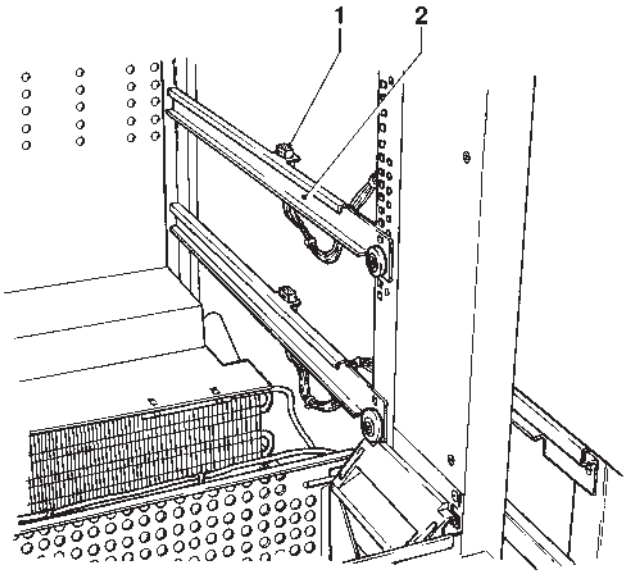


Fig. 31

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.

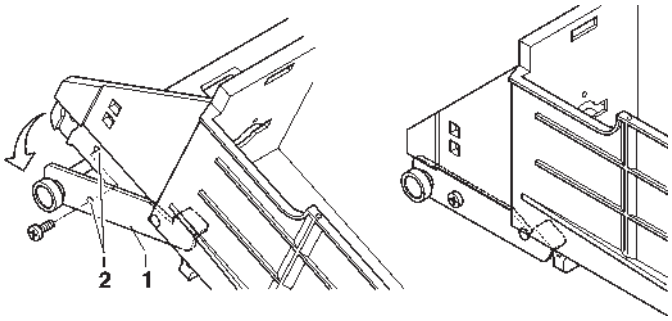


Fig. 32

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

CONFIGURATION OF BOTTLE / CAN TRAYS

The trays for bottles can be configured to dispense 0.5 l / 0.6 l and 0.33 l plastic bottles as well as 0.33, 0.375 and 0.25 l “slim” cans vertically.

You can:

- Replace the spirals with a pitch suitable for the product to be dispensed (see the paragraph “replace spirals”)
- Change the position of the retainer spring according to the product to be dispensed (see the table)

Spring position	Products to be loaded
1	0.33 - 0.25 "slim" cans 0.375 litre cans
2	0.33 litre bottles
3	0.6 litre bottles
4	0.50 litre bottles 0.5 litre cans
5	0.50 cl "slim" bottles

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

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

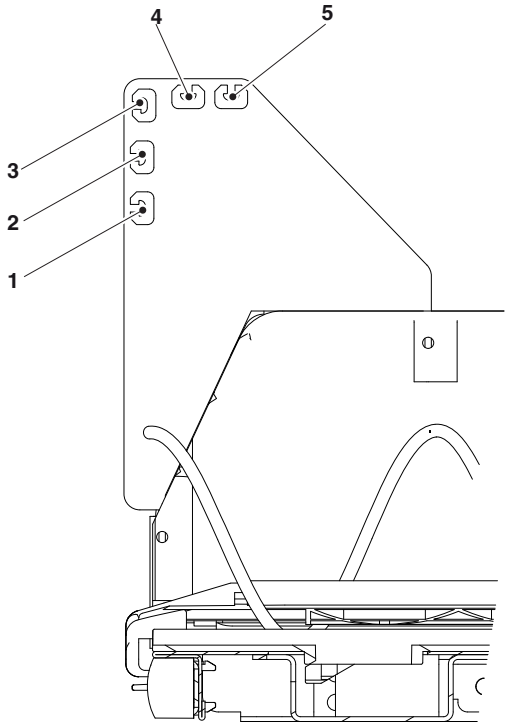


Fig. 33

CONFIGURATION OF THE COLD AIR DISTRIBUTION GRID

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

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

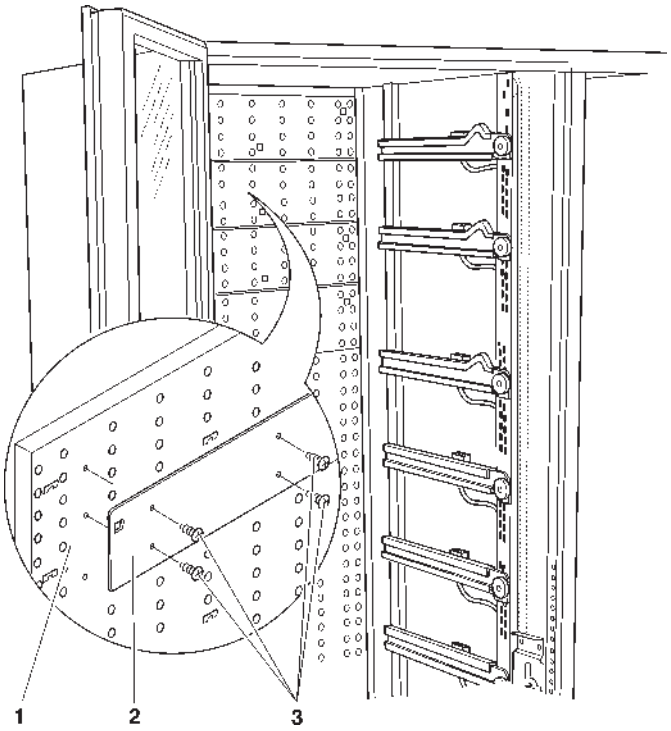


Fig. 34

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

UNIFORM TEMPERATURE

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

STRATIFIED TEMPERATURE

The machine can have up to 2 areas at various temperatures.

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 configuration that has been experimentally established by the manufacturer:

2-area configuration	
8-16 °C	air distribution grid CLOSED
5-8 °C	air distribution grid OPEN
0-4 °C (active food management)	

BOARD FUNCTIONS

CPU BOARD

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

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 display
- actuation of the cooling unit and sensors
- glassfront lighting

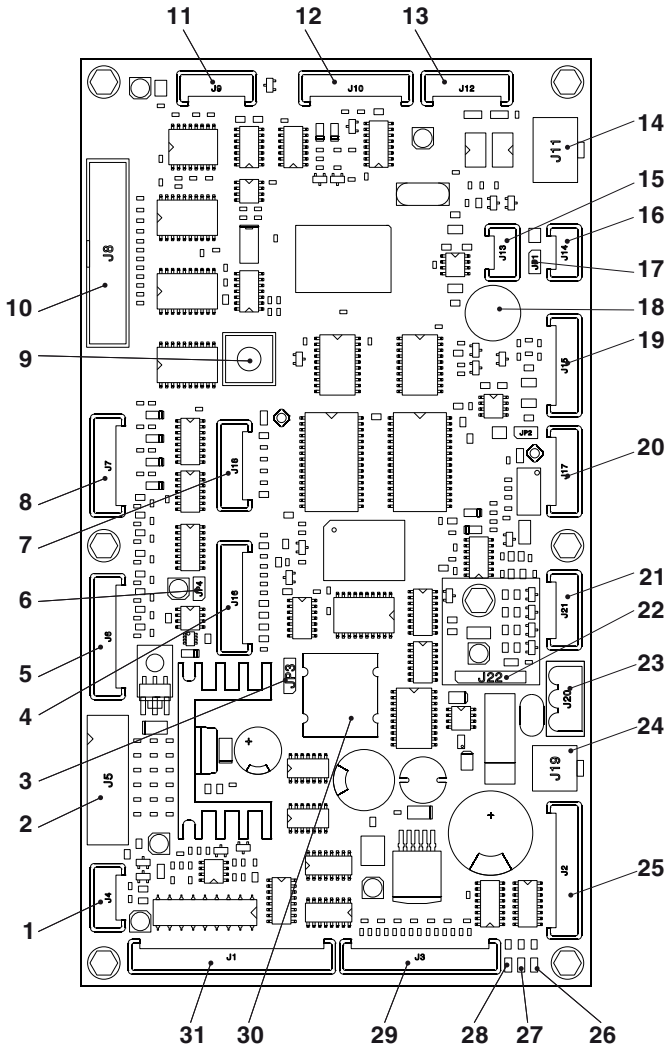


Fig. 35

1. (J4) Temperature probe
2. (J5) Validators
3. Battery jumper (2-3)
4. (J16) not used
5. (J6)Direct selection keyboard (if available) JP4 WDI jumper (closed)
6. (J18) Up-key
7. (J7) Numeric selection keyboard
8. Programming button
9. (J8) Display
10. (J9) Numeric keyboard supply
11. (J10) RS232 serial port
12. (J12) EXE/BDV payments
13. (J11) MDB payments
14. (J13) Can-bus
15. (J14) Can-bus
16. (JP1) Can-Bus jumper (closed)
17. Buzzer
18. (J15) Product passage photocells
19. (J17) not used
20. (J21) Not used
21. (J22) RAM data expansion (optional)
22. (J20) 24Vac power supply
23. (J19) To the glassfront lighting board
24. (J2) Compartment lock
25. DL3 “RUN” green Led
26. DL2 “RESET” red Led
27. DL1 “+5V” yellow Led
28. (J3) To the external programming and OUT/R management button of the cooling unit
29. Battery
30. (J1) Spiral motors

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 updating the software.

GLASSFRONT LIGHTING BOARD

This current regulator is intended to supply the lighting LED's with direct current for constant brightness of the glassfront.

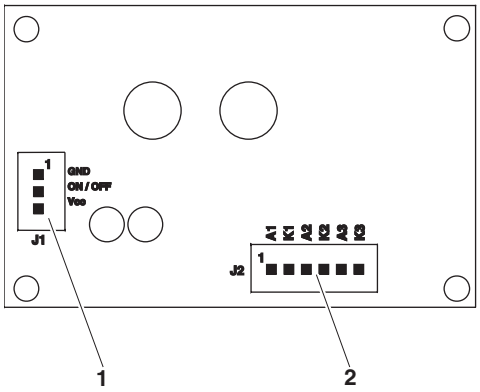


Fig. 36

1. Board supply
2. To the glassfront lighting leds

ELECTRICAL PANEL

The electric panel is accommodated in the slide-in compartment of payment systems; the main switch is directly accessible.

To accessthe fuses, the connectors in the front of the electric panel, remove the metal protection.

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

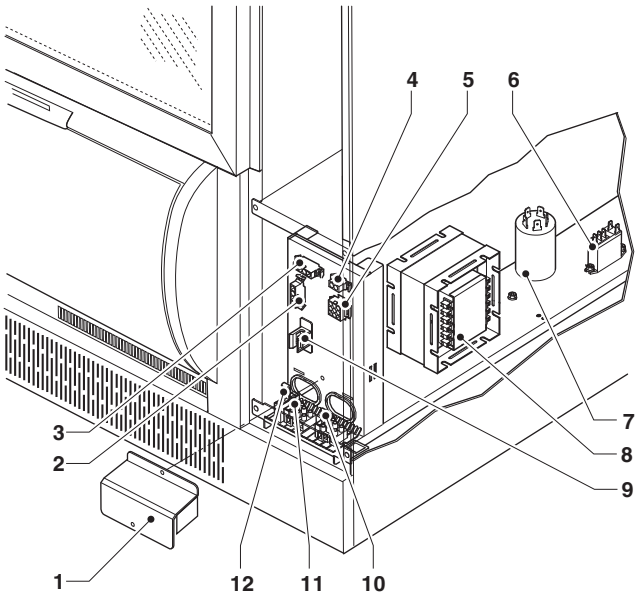


Fig. 37

1. Metal protection
2. Motor-driven fan compressor connector
3. Glassfront anti-condensate heating element connector
4. Intermediate wall anti-condensate heating element connector
5. CPU board connector
6. Compressor/motor-driven fan relay
7. Interference suppressor
8. Transformer
9. Main switch
10. Secondary transformer fuse
11. Primary transformer fuse
12. Line fuse

ACCESS TO THE COOLING UNIT

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

- Detach the machine from the mains
- Remove the feet cover (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.

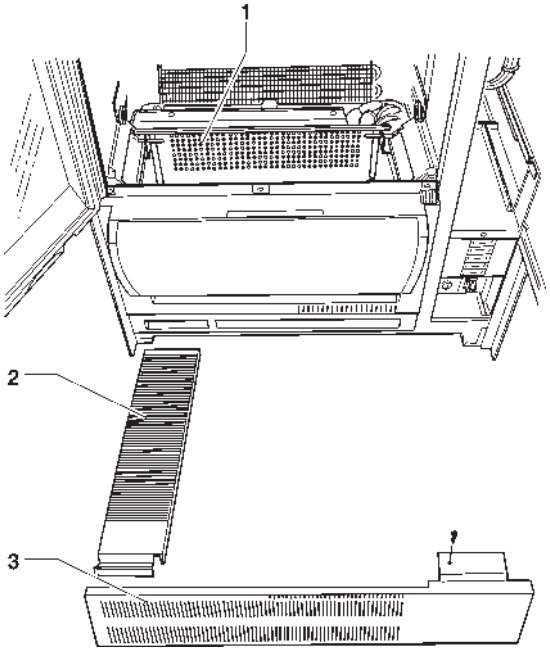


Fig. 38

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

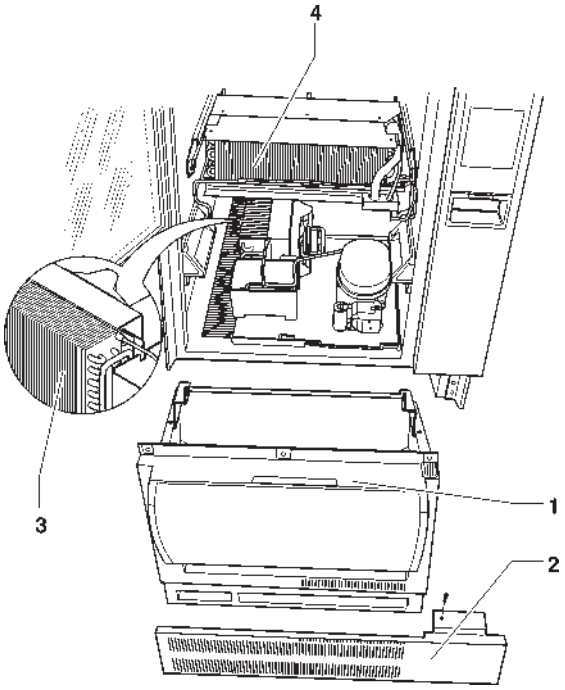
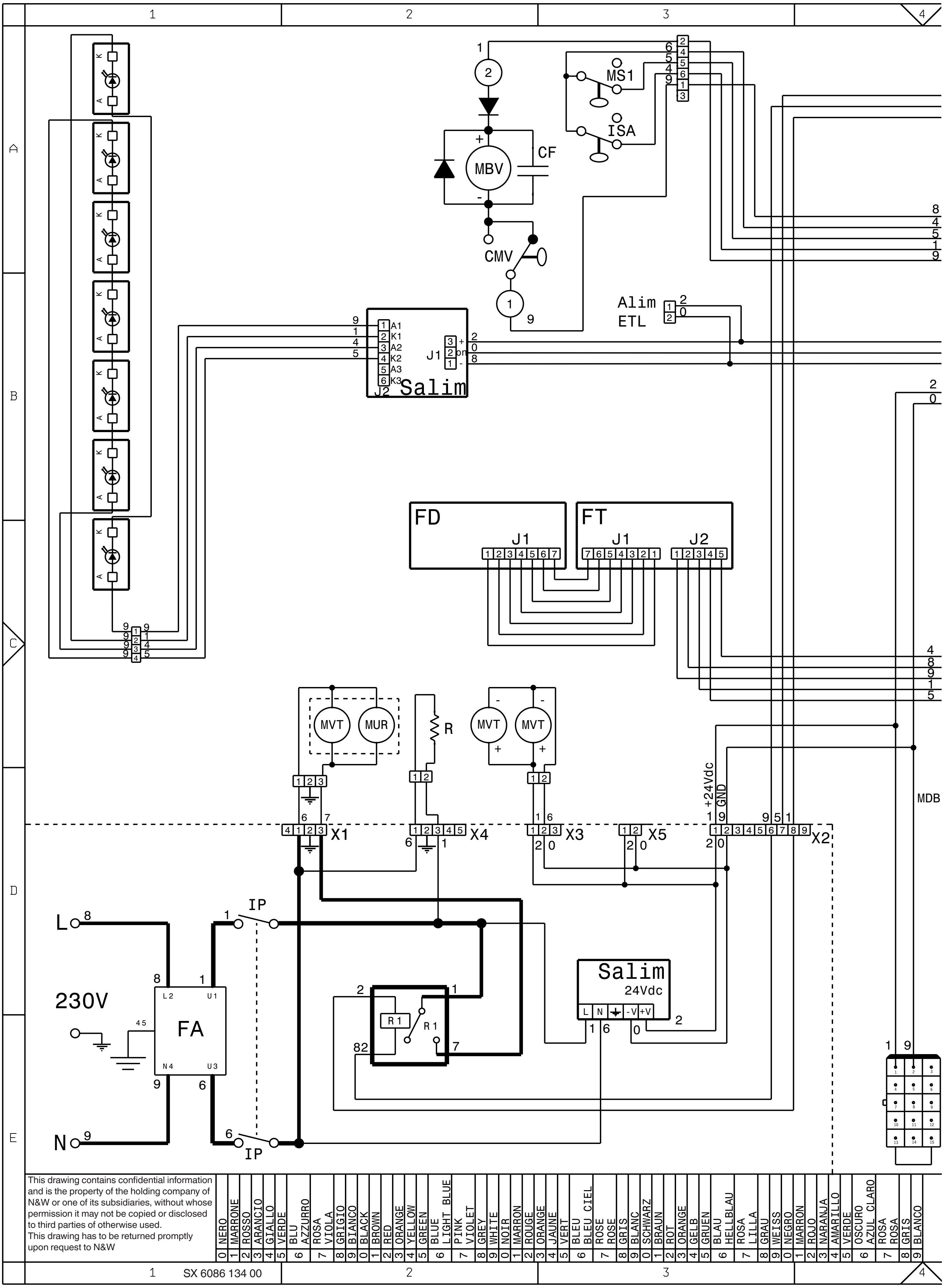


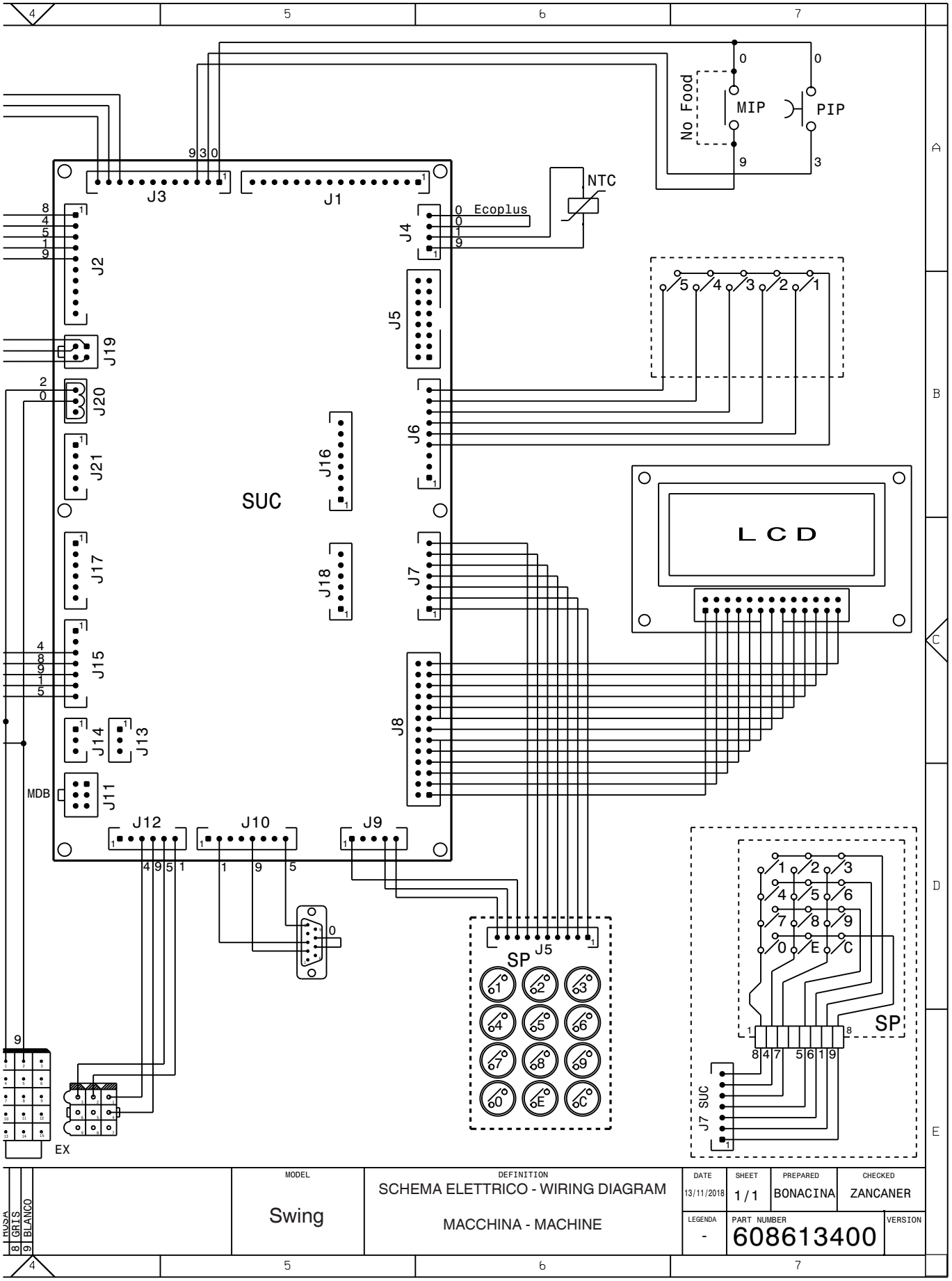
Fig. 39

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

Appendix



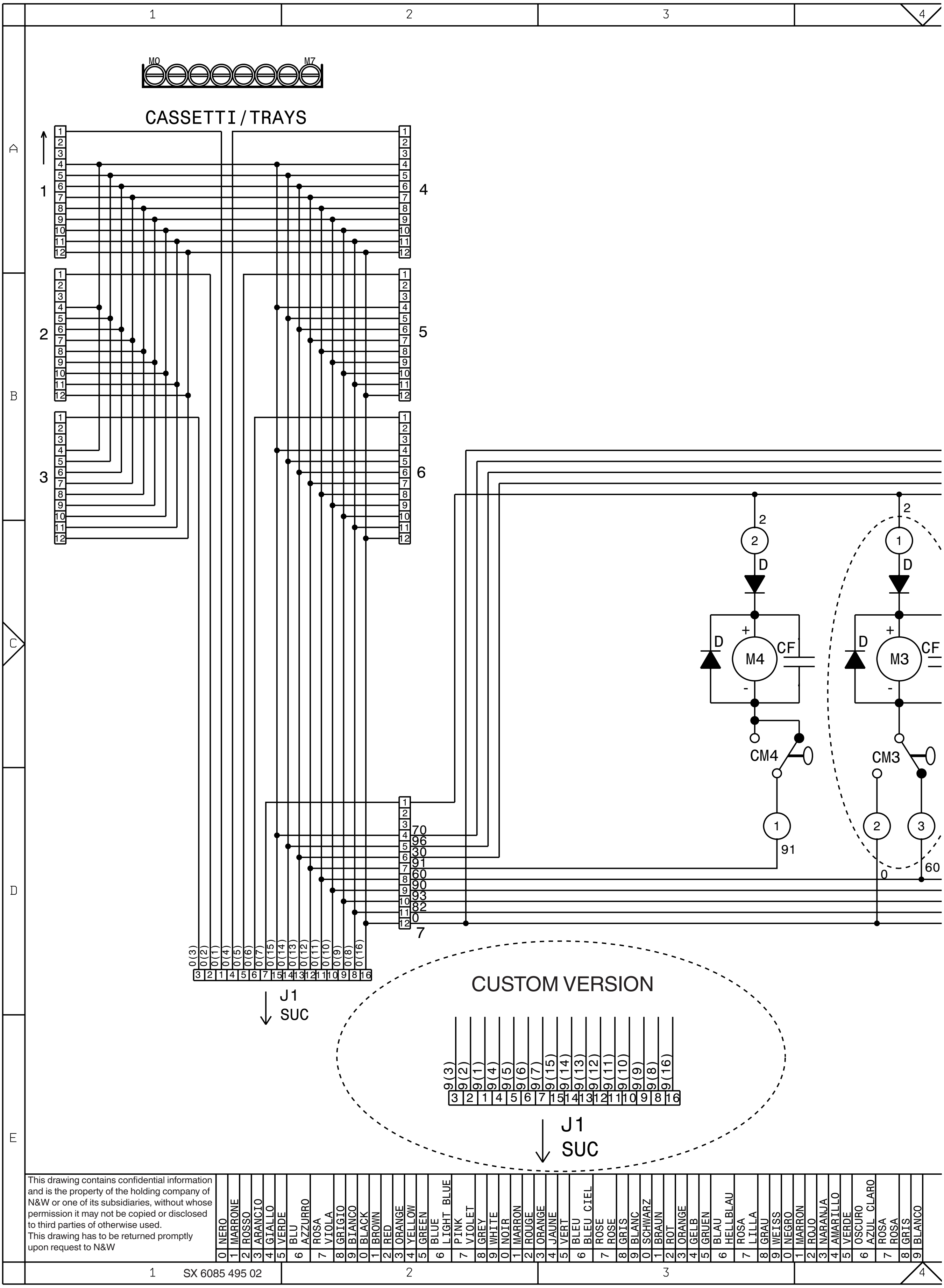
BDV *BDV COIN MECH CONNECTOR*
CF *FILTER CONDENSER*
CMV *COMPARTMENT LOCK MOTOR CAM*
D *DIODE*
EX *EXECUTIVE COIN MECH CONNECTORS*
FA *RADIO INTERFERENCE SUPPRESSOR*
FD *PHOTODIODE*
FT *PHOTOTRANSISTOR*
IP *DOOR SWITCH*
ISA *OPEN SLIDER SWITCH*
LCD *LIQUID CRYSTAL DISPLAY*
MBV *DISPENSING COMPARTMENT LOCK MOTOR*
MIP *DOOR MICROSWITCH*
MS1 *SLIDER MOTOR MICROSWITCH*



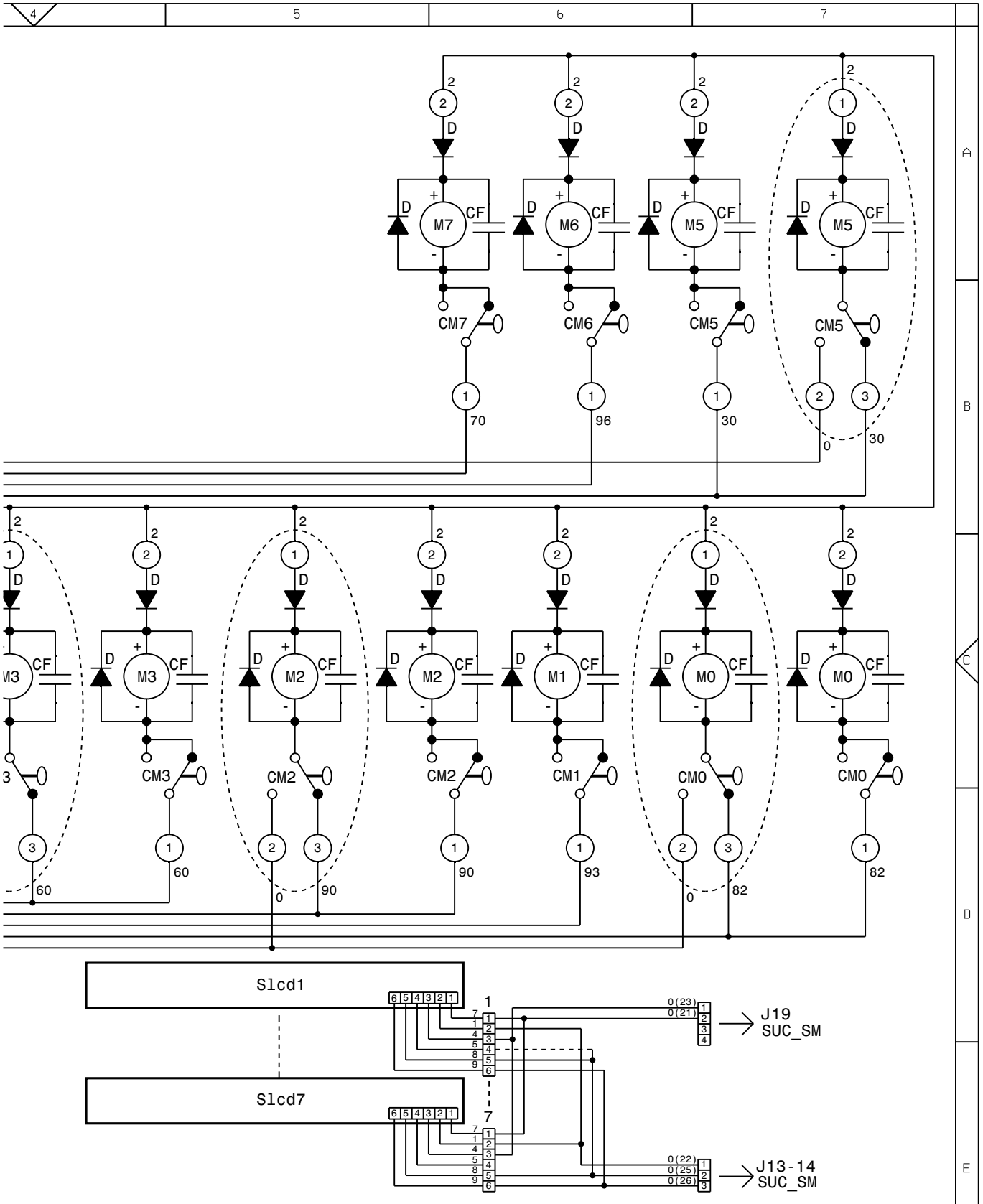
	MODEL	DEFINITION	DATE	SHEET	PREPARED	CHECKED
8 GRIS 9 BLANCO	Swing	SCHEMA ELETTRICO - WIRING DIAGRAM MACCHINA - MACHINE	13/11/2018	1 / 1	BONACINA	ZANCANER
			LEGENDA -	PART NUMBER 608613400		VERSION

MUR	*COMPRESSOR*
MVT	*MOTOR -DRIVEN FAN*
NTC	*TEMPERATURE PROBE*
PIP	*PROGRAMMING BUTTON*
R	*RESISTOR*
RL1-..	*RELAIS*
RS232	*SERIAL PORT*

SALIM	*POWER SUPPLY UNIT BOARD*
SLED	*LED BOARD*
SP	*BUTTON BOARD*
SUC	*C.P.U. BOARD*
TR	*TRANSFORMER*
TX....	*DELAYED FUSE (X=CURRENT)*



CF	FILTER CONDENSER	D	DIODE
CM0-9	VENDING MOTOR CAM	M0-9	VENDING MOTORS



MODEL	DEFINITION: SCHEMA ELETTRICO - WIRING DIAGRAM CASSETTI - TRAYS	DATE: 30/07/2008	SHEET: 1/1	PREPARED: BREMBILLA	CHECKED: MONGUZZI	
		LEGENDA: -	PART NUMBER: 608549502	VERSION: A		

8 GRIS
9 BLANCO

SLCD LIQUID CRYSTAL DISPLAY

SUC C.P.U. BOARD

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