



**AUTOMATIC VENDING**

# Antares

## INSTALLATION AND MAINTENANCE MANUAL

Cod. 11081821

ENGLISH

### SAFETY SYMBOLS



**ATTENTION:** Important safety indications



**READ** the instruction manual machine carefully before using the machine



For any service or maintenance **switch off** the machine



**ATTENTION:** machine switched on



**ATTENTION:** hot parts in contact!

BEFORE USING THE MACHINE, READ THIS MANUAL CAREFULLY FOR ITS CORRECT USE IN ACCORDANCE WITH THE CURRENT SAFETY STANDARDS.

### PICTOGRAMS



#### IMPORTANT NOTICES

##### USER



The user is defined as the person authorized to collect drinks from the automatic distributor. The user is not allowed to undertake any maintenance operations either ordinary or extraordinary. In the event of a fault the user is obliged to notify the maintenance technician or the person responsible for running the automatic distributor.

##### MAINTENANCE TECHNICIAN



The maintenance technician is defined as being the person responsible for filling up the containers with soluble products, sugar, coffee, stirrers and cups. The maintenance technician is also responsible for cleaning the distributor (see operations indicated in chapter 9.0). In the event of a fault the maintenance technician must call the installation technician.

##### INSTALLATION TECHNICIAN

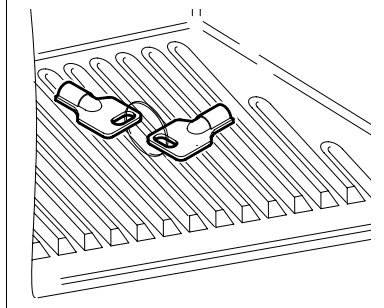


The installation technician is defined as the person responsible for the installation of the automatic distributor, the starting up operations and the function settings. Each regulation operation is the exclusive responsibility of the installation technician who also holds the programming access password.

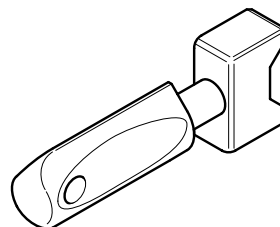
Downloaded from [www.vendingbar.gr](http://www.vendingbar.gr)



*Keys at the disposal of the  
MAINTENANCE and INSTALLATION  
technicians*



*Key at the disposal of the  
INSTALLATION technician*



*This key can also be given to the  
maintenance technician exclusively  
authorized to undertake the  
operations as described in chapter 8.0*

*Tools necessary for undertaking  
interventions on the automatic dispenser.*

#### **SOCKET SPANNERS**

n° 5,5  
n° 7  
n° 8  
n° 10  
n° 20  
n° 22

#### **SPANNERS (fork type)**

n° 7  
n° 8  
n° 10  
n° 12  
n° 14

#### **SCREWDRIVERS**

Small size  
Medium size  
Large size

Normal cross  
Small cross  
Medium cross  
Large cross  
Of Teflon, small size for Trimmer regulation.

#### **RATCHET SPANNER no.14**

#### **TESTER**

#### **ELECTRICIAN'S SCISSORS**

#### **PROGRAMMING KIT**

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## 1.0 PREMISE

### 1.1 Important notices

This automatic distributor has been designed and constructed in full accordance with current safety regulations and is therefore safe for those who follow the ordinary filling and cleaning instructions as indicated in this manual.



*The user must not under any circumstances remove the guards that require a tool for removal.*

Some maintenance operations (to be done solely by specialized technicians and indicated in this manual with a special symbol) require that specific safety protections of the machine must be switched off .

In accordance with the current safety regulations, certain operations are the exclusive responsibility of the installation technician, and the ordinary maintenance technician may have access to specific operations on with specific authorization.

The acquaintance and absolute respect, from a technical point of view, of the safety instructions and of the danger notices contained in this manual, are fundamental for the execution, in conditions of minimum risk, for the installation, use and maintenance of this machine.

### 1.2 General Instructions



*Knowledge of the information and instructions contained in the present manual is essential for a correct use of the automatic vending machine on the part of the user .*

- Interventions by the user on the automatic vending machine are allowed only if they are of his competence and if he has been duly trained.

*The installation technician must be fully acquainted with all the mechanisms necessary for the correct operation of the machine.*

- It is the buyer's responsibility to ascertain that the users have been trained and are informed and regulations indicated in the technical documentation supplied.

*Despite the full observance of the safety regulations by the constructor, those who operate on the automatic dispensers must be fully aware of the potential risks involved in operations on the machine.*

- This manual is an integral part of the equipment and as such must always remain inside of the same, so as to allow further consultations on the part of the various operators, until the dismantlement and/or scrapping of the machine.

- In case of loss or damage of the present manual it is possible receive a new copy making application to the manufacturer, with prior indication of the data registered on machines' serial number.

- The functional reliability and optimization of machine's services are guaranteed only if original parts are used.

- Modifications to the machine not previously agreed on with the construction company and undertaken by the installation technician and/or manager, are considered to be under his entire responsibility.

All the operations necessary to maintain the machine's efficiency, before and during its use are at the users charge.

- Any manipulations or modifications made to the machine that are not previously authorized by the manufacturer, relieve the latter from any responsibility for damages deriving from, and will automatically result in the cancellation of the machine guarantee terms.
- This manual reflects the status at the moment of the emission of the automatic vending machine on the market; possible modifications, upgrading, adaptmets that are done the machine and that are subsequently commercialized do not oblige **NUOVA BIANCHI** neither to intervene on the machine previously supplied, nor, neither to update the relative technical documentation supplied together with the machine.
- It is however **NUOVA BIANCHI's** faculty, when deemed opportune and for valid motives, to adjourn the manuals already present on the market, sending to their customers adjournment sheets that must be kept in the original manual.

Possible technical problems that could occur are easily resolvable consulting this manual ; For further information, contact the distributor from whom the machine has been purchased, or contact Nuova Bianchi's Technical Service at the following numbers:

**☎ ++39 35 419 67 20**

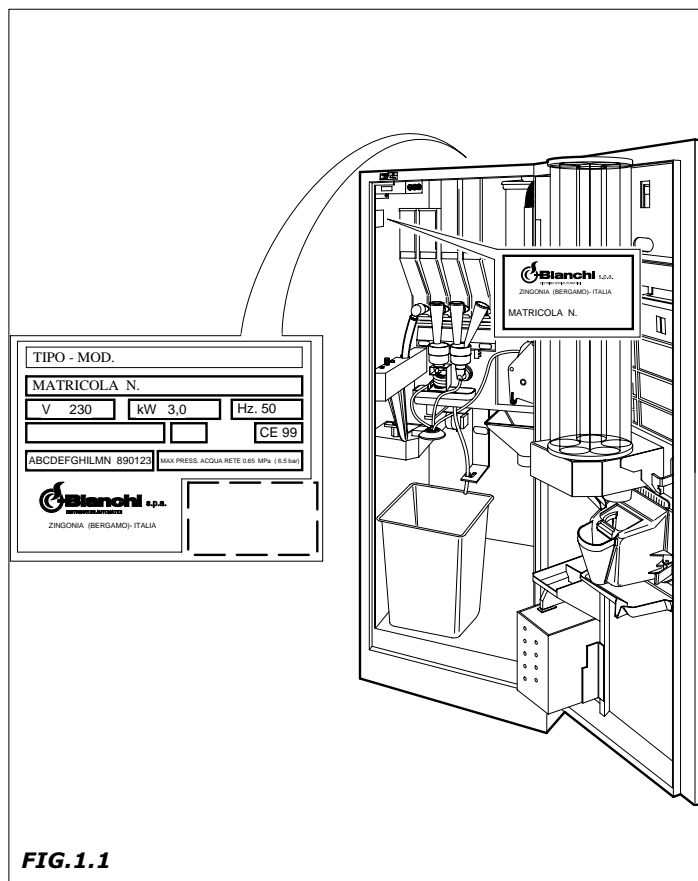
**fax ++39 2 700 486 69**

When calling it is advisable to be able to give the following information:

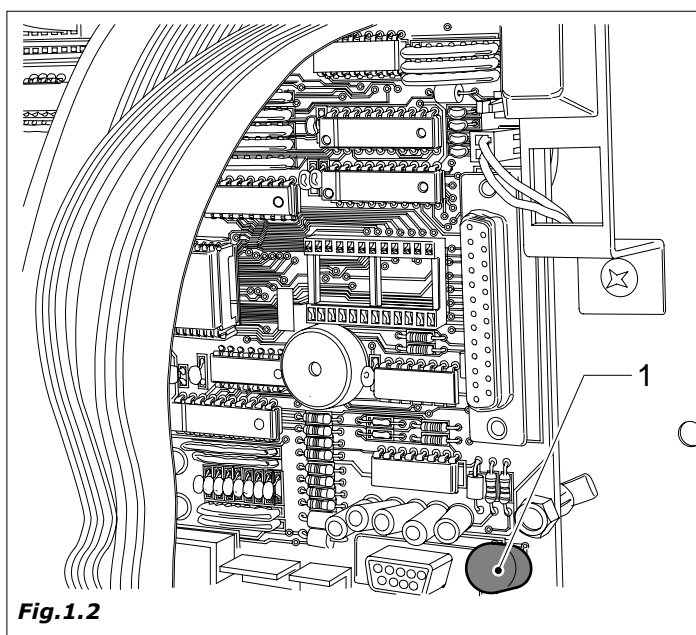
- The data registered on the serial number label (Fig.1.1)
- version of program contained in the microprocessor (adhesive label applied to the component the assembled on the Master board ) (Fig.1.2).

**Nuova Bianchi S.p.A.** declines any responsibility for damages caused to people or belongings in consequence to:

- Incorrect installation
  - Inappropriate electrical and/or water connection.
  - Inadequate cleaning and maintenance
  - Not authorized modifications
  - Improper use of the distributor
  - Not original spare parts
- Under no circumstances is Nuova Bianchi spa obliged to compensate for eventual damage resulting from the forced suspension of drink deliveries as the result of faults.
  - Installation and maintenance operations , must be done exclusively by qualified technical personnel with prior training for carrying out these duties.
  - For refilling use only food products that are specific for automatic vending machines.
  - The automatic distributor is not suitable for external installation. The machine must be installed in dry places, with temperatures that never go below 1°C it must not be installed in places where cleaning is done with water hoses (ex. big kitchens.).  
Do not use water jets to clean the machine.
  - If at the moment of the installation, if conditions differing from those indicated in the present manual, or should the same undergo changes in time, the manufacturer must be immediately contacted before use of the machine.
  - Also check that any other eventual norms or regulations as laid down by national or local legislation are taken into account and applied.



**FIG.1.1**



**Fig.1.2**

## 2.0 TECHNICAL CHARACTERISTICS

Height	mm 1630
Width	mm 585
Depth	mm 649
Weight	from 90 kg to 105 kg
Power Supply	V 230
Power frequency	Hz. 50
Installed power <sup>(1)</sup>	from kW 1,4 to kW 1,8
Max power	1,8 kW
Nominal current	7,8A

### AVERAGE CONSUMPTIONS:

In standby	100 Wh
For 50 drinks	300 Wh
Water connection	3/8" gas hook-up
Electric connection	SCHUKO plug

### WATER SUPPLY

from main supply with pressure between 0.5 and 6.5 bar

### CUP DISPENSER

Suitable for cups with diameter mm 70-71

### BOILER RESISTANCES

of armoured type:

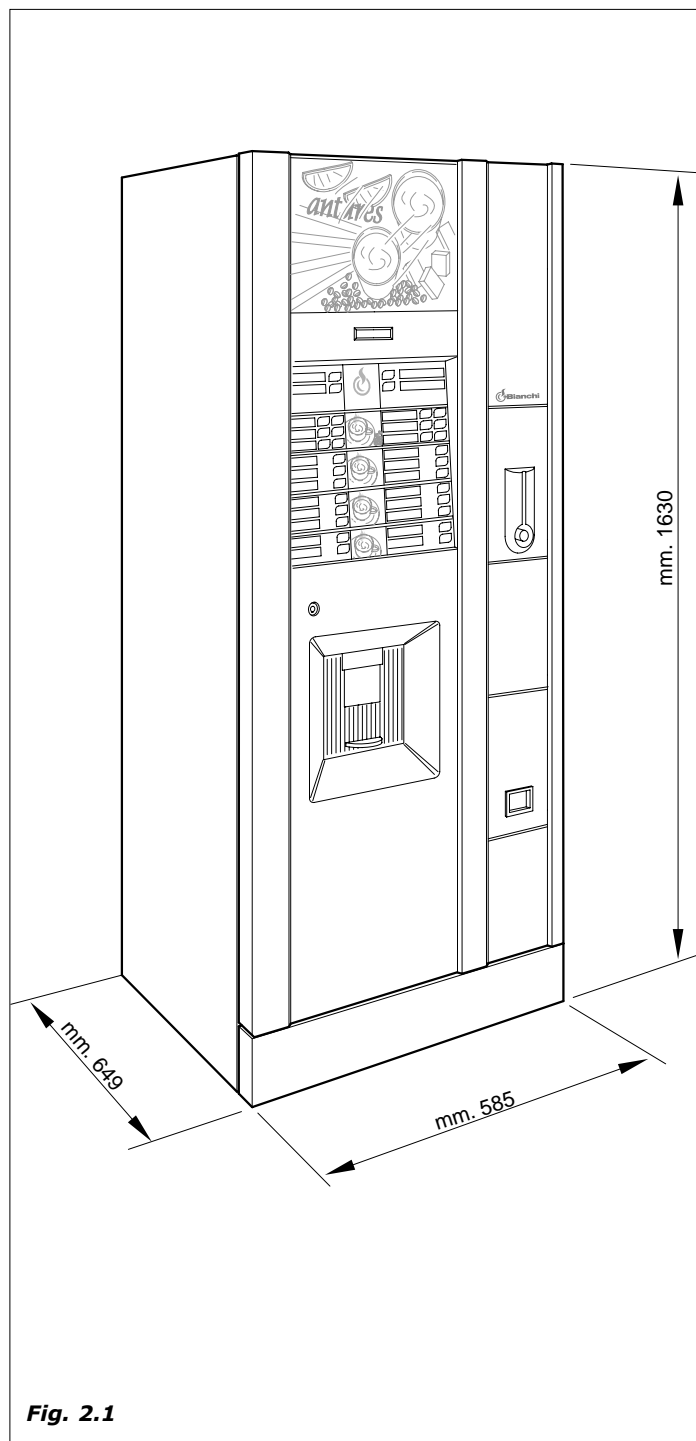
of 1500 W for the coffee boiler

of 1300 W for the instant boiler

### PRODUCT CONTAINER CAPACITY

Coffee in beans	kg 3,5
Instant coffee	kg 1,2
Powder milk	kg 1,7
Chocolate	kg 3,2
Tea	kg 3,3
Frozen-dry tea	kg 1,7
Broth	kg 3,6
Sugar	kg 4,0
Cups	500
Spoons	400
Neon light (optional)	of 11 Watt

<sup>(1)</sup> Check the rated output indicated on the data plate applied by the distributor.



**Fig. 2.1**

**3.0 GENERAL TECHNICAL**

**3.1 Machine description (Fig.3.1)**

- 1 Coffee group and grinder
- 2 Drink dispensing group
- 3 Sugar dispenser group
- 4 Electronics board (Master)
- 5 Cup turred
- 6 Coin mechanism

**3.2 Foreseen use**

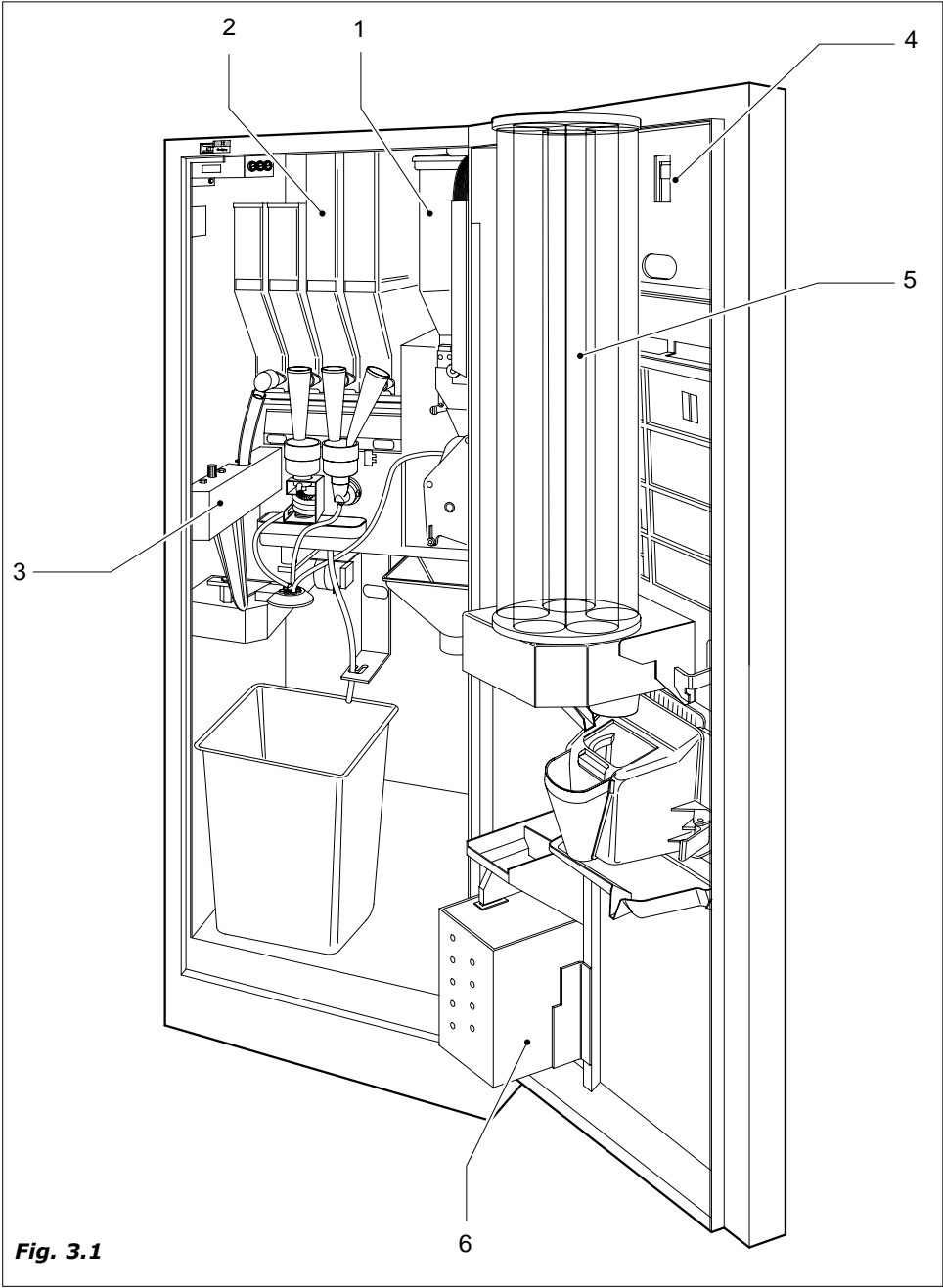
The automatic distributor is exclusively for the dispensing of drinks, prepared mixing food substances with water (by infusion as far as concerns espresso coffee).  
For this purpose use products declared as suitable by the manufacturer for automatic distribution in open containers. The drinks are made in specific plastic cups automatically dispensed by the machine.  
Where foreseen, also the spoon for mixing the sugar is dispensed.  
The drinks must be consumed immediately and in no case are to be kept for subsequent consumption.

**3.3 Models**

The following terminology is used so as to distinguish the various models of automatic distributors:

**ANTARES E** version with plastic coffee group

**ANTARES I** version only with instant products



**Fig. 3.1**



*The manual is compiled for the most complete model: it is therefore possible, to find descriptions or explanations not related to your machine.*

**ANTARES ENS** (version with espresso coffee and instant beverages)  
where: **E** = Espresso  
**NS** = Number of boxes of instant product

**ANTARES INS** (version only with instant products)  
where: **I** = Instant  
**NS** = Number of boxes of instant product

ART. CODE	ARTICLE DESCRIPTION
<b>ANE15XX</b>	ANTARES E3S GB
<b>ANE18XX</b>	ANTARES E3S GB DECA
<b>ANE21XX</b>	ANTARES E3S GB SA
<b>ANE21XX/Q</b>	ANTARES E3S GB SA IMQ
<b>ANE22XX</b>	ANTARES E3S GB IVS
<b>ANE23BL</b>	ANTARES E3S GB IVS
<b>ANE23XX</b>	ANTARES E3S GB IVS
<b>ANI03XX</b>	ANTARES I5S NS
<b>ANI05XX</b>	ANTARES I5S FR
<b>ANI06XX</b>	ANTARES I5S AS
<b>ANI04XX</b>	ANTARES I5S IS
<b>ANI07XX</b>	ANTARES I5S IS

**XX** = Colour identification  
**/Q** = IMQ marked machine

### 3.4 Basic operation concepts

During the normal functioning the distributor is set in standby status.

Introducing the necessary amount, according to the set price, and after pressing the key relative to the desired drink, the drink dispensing cycle is activated and can be divided in to different processes:

#### **CUP DISPENSING**

- It is the first operation that the distributor starts (except for the selections with pre-selection "without CUP").
- the motor inside of the cup dispenser moves the plastic gear to separate and make the cup fall into the cup ring inside the cup dispenser (Fig.3.2).

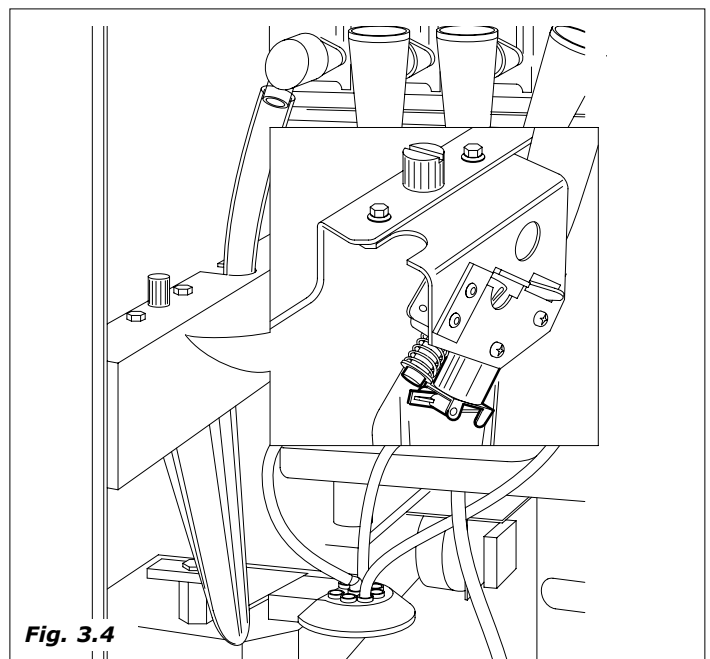
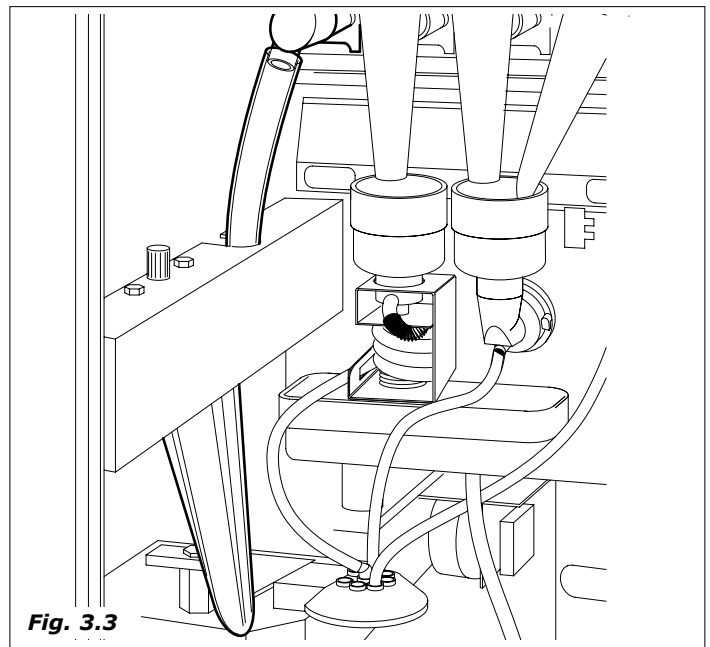
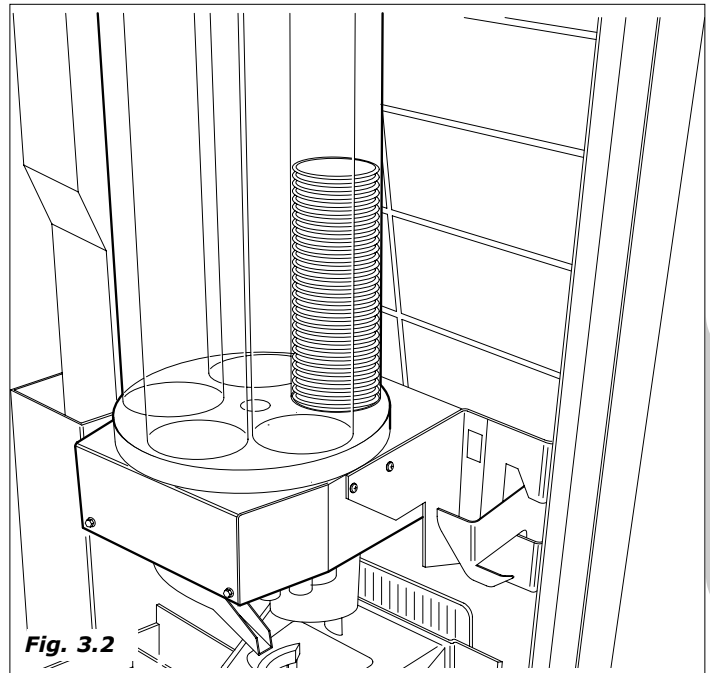
#### **SUGAR DISPENSER**

Where set and requested , an amount of sugar in the preset maximum dose is dispensed with the possibility of stopping the latter at the desired dose.

The sugar is dispensed directly in the cup in the **E** versions whereas for the **I** versions it is pre-mixed with the instant drinks.

The dispensing procedure occurs according to the following phases:

1. the geared motor activates the helicoidal screw conveyor of the sugar product container, dispensing the desired quantity into the product chutes (Fig.3.3)
2. The geared motor is activated and by means of the cam, it effects the movement of the product chute , in order to make sugar to fall into the cup (Fig. 3.4).



### SPOON DISPENSING

This process is activated only in the versions where the spoon dispenser is foreseen (**E**); In these versions it is possible to select the spoon in the selections without sugar and/ or in the instant selections .

In the **I** models the spoon dispenser is not foreseen as the sugar comes pre-mixed with the instant beverages.

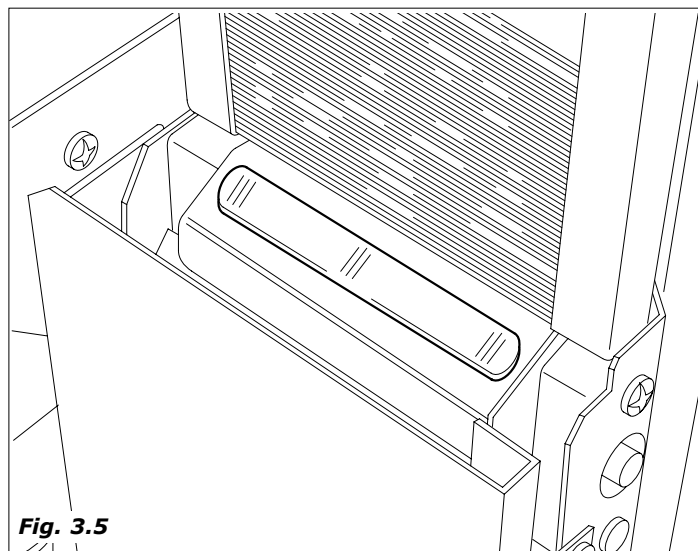
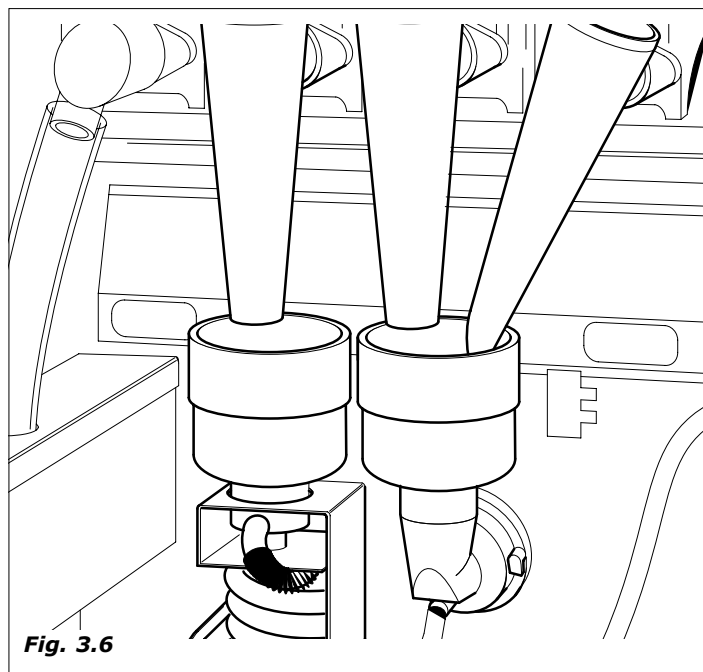
- the geared motor that operates the spoon release device is activated making the spoon fall into the cup. (Fig.3.5).

### INSTANT DRINKS

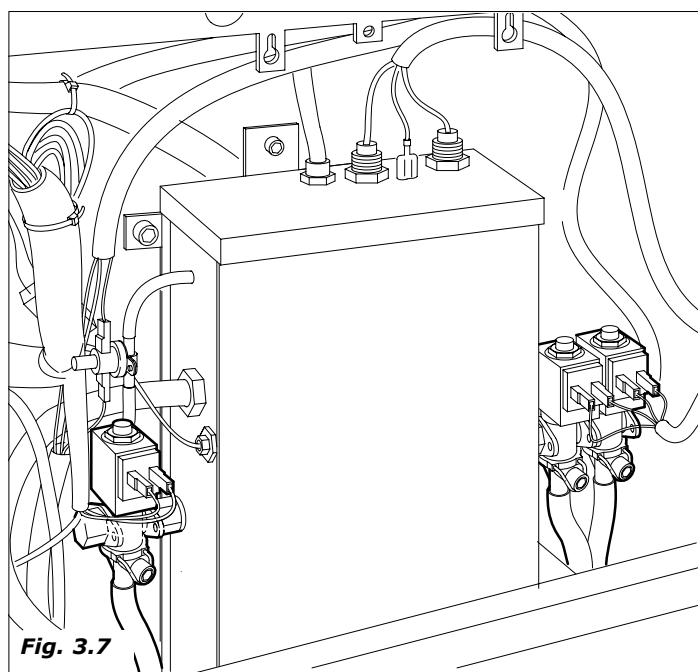
This process is activated when the cup and spoon dispensing processes have been completed.

According to the type drink requested and to the distributor model, several of the various processes described here below can be activated.

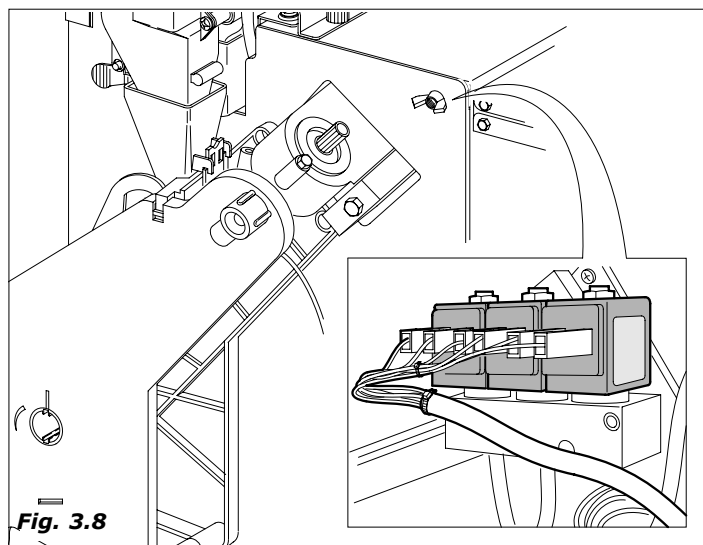
- If present, the whipper motor is activated (Fig.3.6)
- The electrovalve assembled on the instant boiler (Fig.3.7) or fixed to the instant coffee (Fig.3.8) is activated in order to introduce the set quantity of water into the mixer.



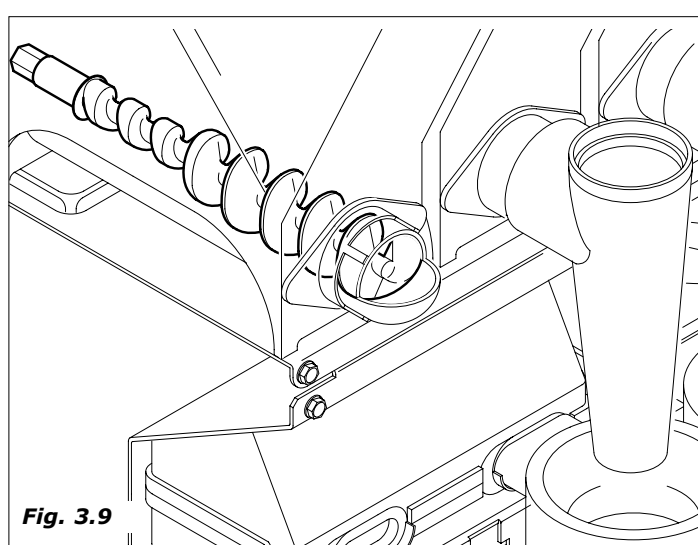
**Fig. 3.5**



**Fig. 3.7**



**Fig. 3.8**



**Fig. 3.9**

- The instant product geared motor activates the helicoidal screw conveyor so as to dispense the quantity of product programmed into the mixer (in some versions more than one product can be conveyed into the same mixer) (Fig.3.9)
- once the preset quantity of water and powder is dispensed, the whipper motor is switched off.

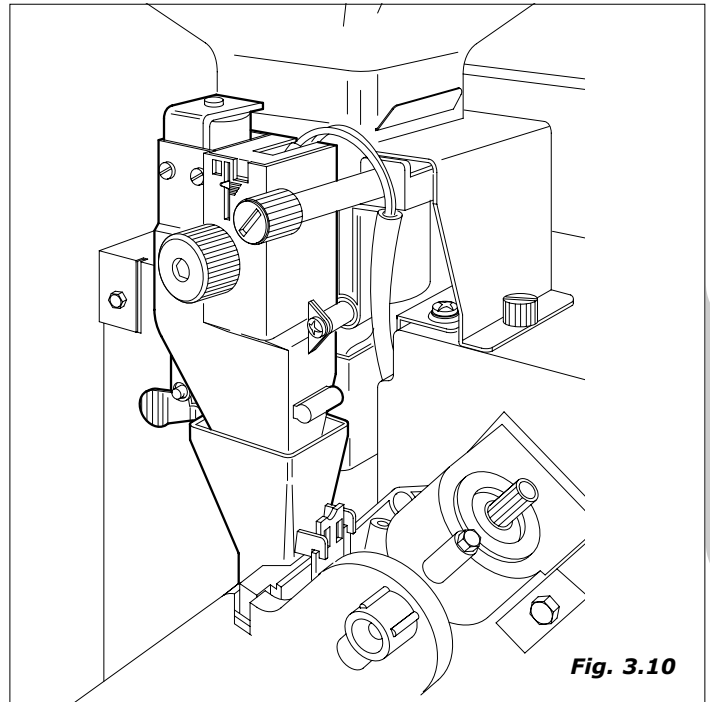


### ESPRESSO COFFEE

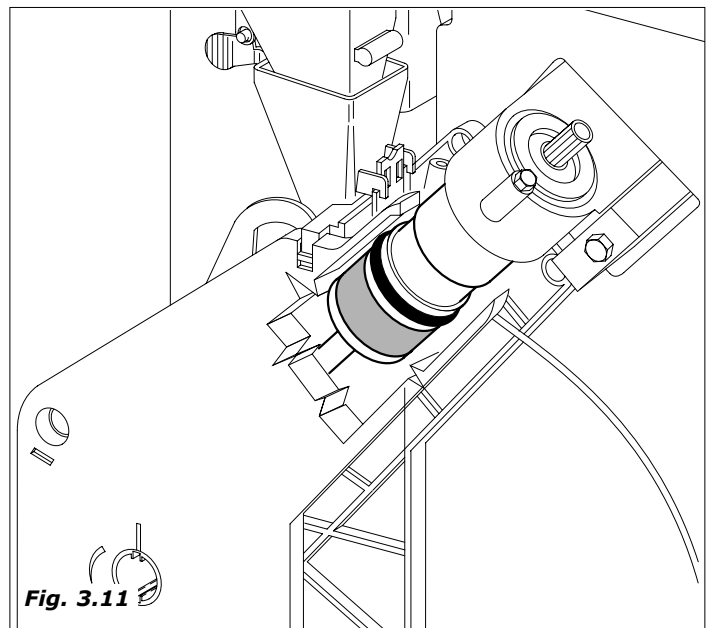
This process functions only the models equipped with the coffee espresso group (brass or plastic), after the cup and sugar dispensing processes have been effected.

- the grinder is activated until it reaches the dose of ground coffee set by the doser (Fig.3.10)
- the doser electromagnet is activated , causing the opening of the door and consequent fall of the coffee into the brew chamber (Fig.3.11).
- the rotation group geared motor brings it into the dispensing position and simultaneously compresses the ground coffee (Fig.3.11).
- the pump that dispenses the quantity of programmed water and that is controlled by a specific electronic device, (volume meter), extracting the water from the coffee boiler(Fig.3.12).
- the coffee group geared motor is activated again so as to bring again into standby position ; during this movement the used coffee grounds are expelled (Fig.3.13)

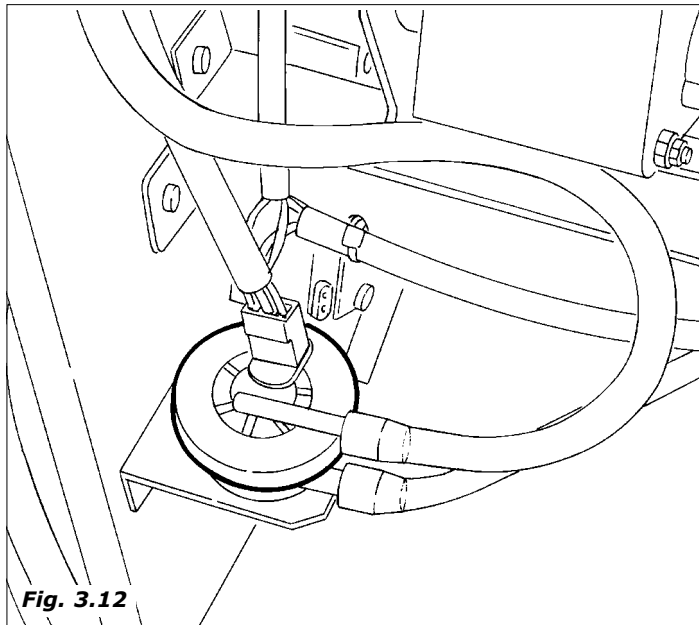
The sequence of these operations (grinding and coffee dispensing) could occur in inverse order according to the type of programme used.



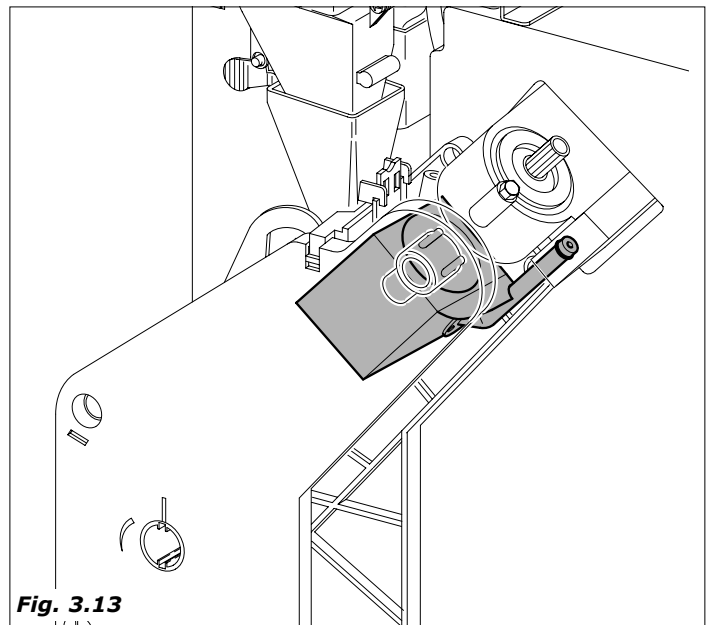
**Fig. 3.10**



**Fig. 3.11**



**Fig. 3.12**



**Fig. 3.13**



## 4.0 MOVING AN AUTOMATIC VENDING MACHINE

### 4.1 Moving and transport (Fig.4.1)

The transport of the distributor must be effected by competent personnel.

The distributor is delivered on a pallet; for the shifting use a trolley and move it slowly in order to avoid capsizing or dangerous movements.



Avoid :

- lifting the distributor with ropes or presses
- dragging the distributor
- upset or lay down the distributor during transport
- give jolts to the distributor

Avoid as the distributor:

- bumping it
- overloading it with other packages
- exposing it to rain, to cold or sources of heat
- keeping it in damp places

The construction company is not liable for any damage which may be caused for the partial or complete non-observance of the warning notices indicated above.

### 4.2 stocking

For eventual stocking, avoid laying several machines over each other, maintain it in vertical position, in dry places with temperatures not inferior to 1°C (Fig.4.2).

### 4.3 Packing

The distributor is protected with polystyrene angles and by a transparent film in polypropylene (Fig.4.2).

The automatic distributor will be delivered packed, assuring both a mechanical protection and protection against damages from the external environment.

On the package labels are applied indicating:

- maneuver with care
- don't turn upside-down
- protect from the rain
- don't superimpose
- protect from sources of heat
- not resistant against bumps
- type of distributor and serial number.

### 4.4 Reception

Upon reception of the automatic distributor you need to check that the same has not suffered damages during the transport.

If damages of any nature are noticed place a claim with the forwarder immediately.



At the end of the transport the packing must result without damages which means it must not :

- present dents, signs of bumps, deformations or damages of the external packaging
- present wet zones or signs that could lead to suppose that the packing has been exposed to rain, cold or heat.
- present signs of tampering

### 4.5 Unpacking

- Free the distributor from the packaging, cutting the protective film in which it is wrapped, along one of the protection angles (Fig.4.3).

Remove the distributor from transport pallet, unscrewing the screws (A) that block the fixing cross staff heads to the pallet (Fig.4.4).

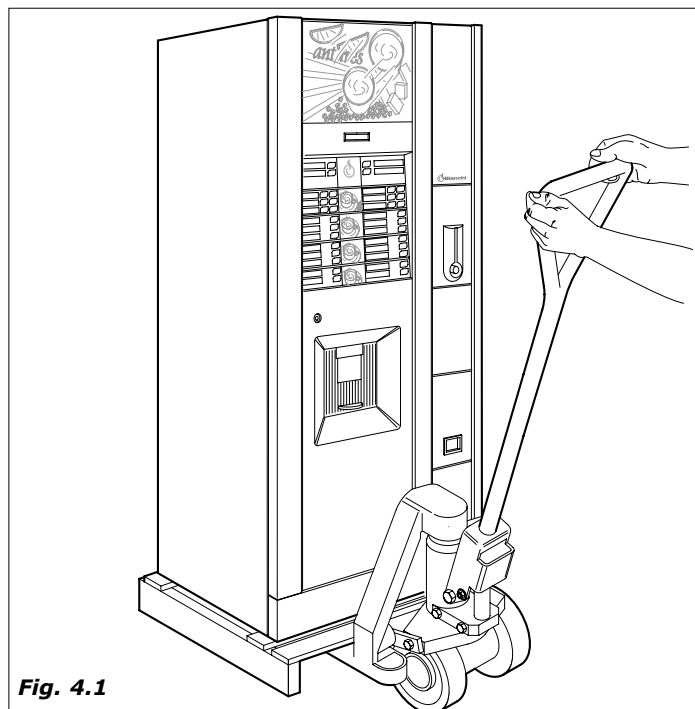


Fig. 4.1



Fig. 4.2



Fig. 4.3

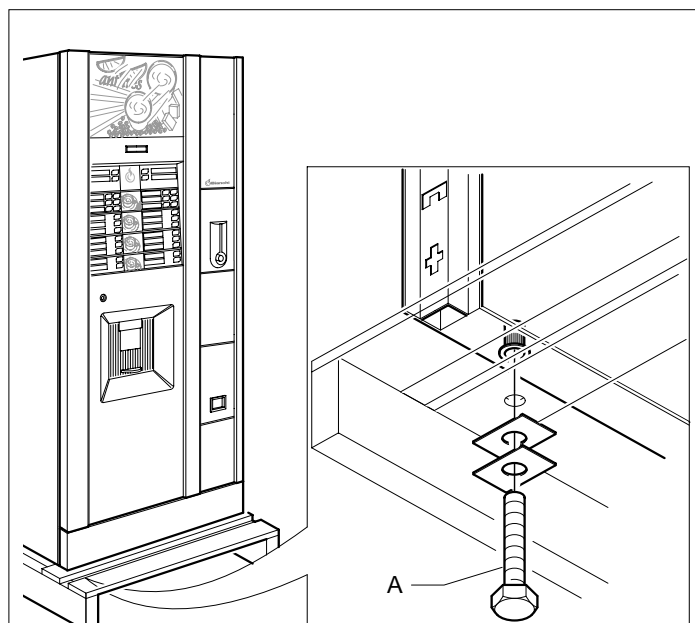


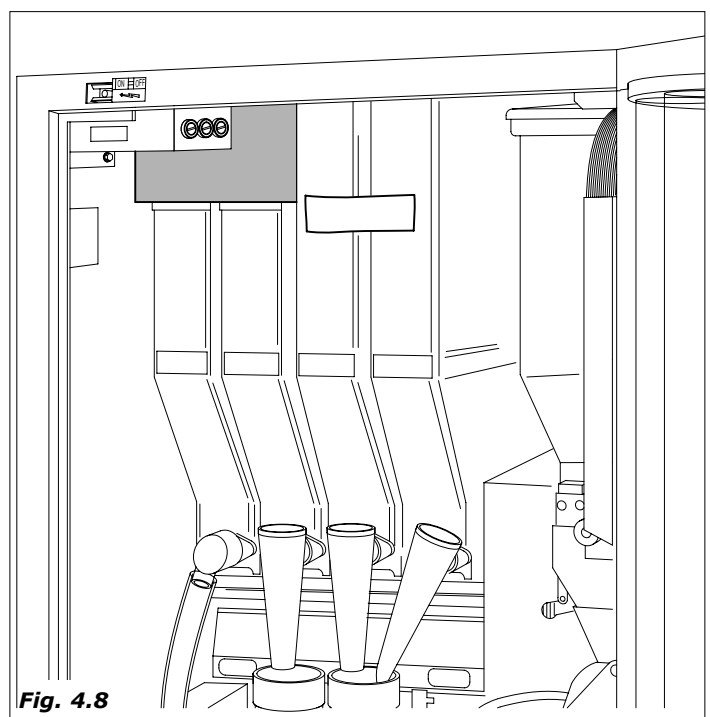
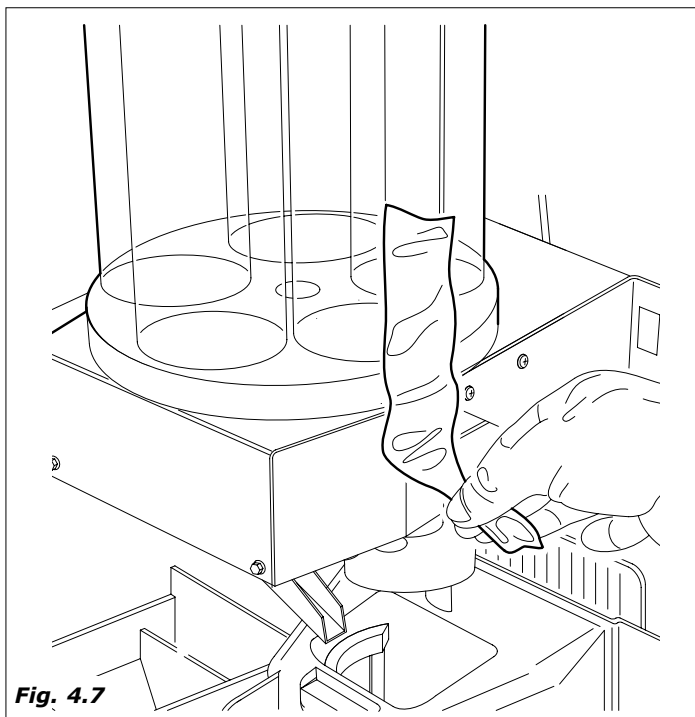
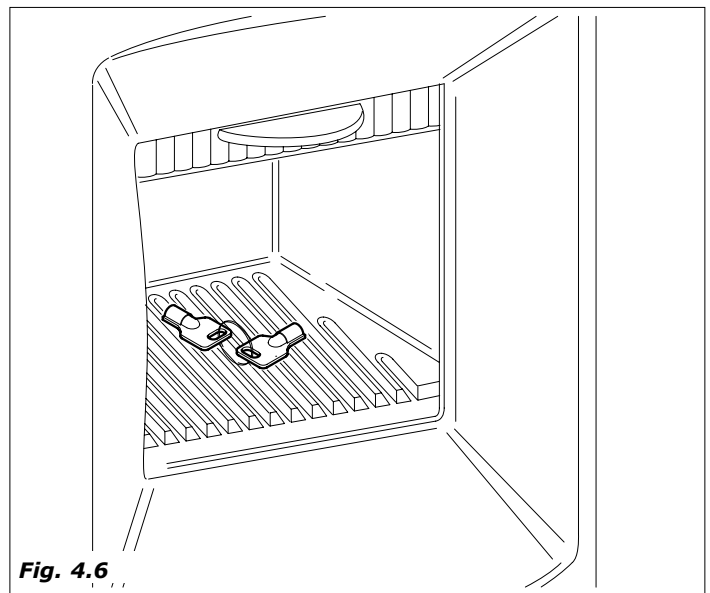
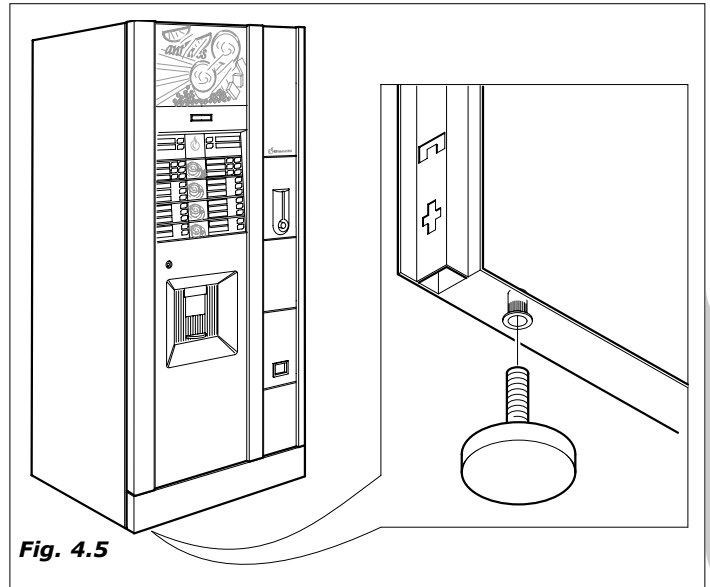
Fig. 4.4

- Release the pallet and insert the 4 feet into the threaded slots (fig. 4.5) freed of the screws (A)
- remove the key from the drink dispensing chamber (Fig.4.6)
- open the door of the distributor and remove the adhesive tape from the components listed here below:

- cup turret (example in Fig.4.7)
- coin box
- sugar container
- weight on the spoon dispenser column
- coin mechanism cover / Master board
- product containers
- water bin float mechanism
- bottom skirting-board
- water bin
- remove the polystyrene that that blocks the product containers (Fig.4.8)



*The packing material must not be left accessible to others, as it is a potential environmental pollution sources. For the disposal contact qualified companies authorized.*



## 5.0 SAFETY NORMS



### ATTENTION!

- before using the automatic distributor, read this manual carefully.
- The installation and maintenance operations must be performed exclusively by qualified technical personnel.
- The user must not in any circumstance be able accede to those parts of the automatic distributor that are protected and require a tool in order to be accessible.
- The knowledge and the absolute respect, from a technical point of view of the safety instructions and of the danger notices contained in this manual, constitute the basis for the operation, in conditions of minimum risk, of the installation, starting and maintenance of the machine.



*Always disconnect the POWER CABLE before maintenance or cleaning interventions.*



**ABSOLUTELY DO NOT INTERVENE ON THE MACHINE AND DO NOT REMOVE ANY PROTECTION BEFORE THE COOLING OF THE HOT PARTS!**

- The functional reliability and optimization of machine's services are guaranteed only if original parts are used.
- **The distributor is not suitable for external installation. The machine must be connect in dry places, with temperatures that never go below 1°C it must not be installed in places where cleaning is done with water hoses (ex. big kitchens). Do not use water jets to clean the machine.**
- In order to guarantee normal operation, the machine must be installed in areas that the environmental temperature is between a minimum of -1°C and a maximum of +32°C and humidity of not over 70%.
- In order to guarantee a regular operation, always maintain the automatic distributor in perfect cleaning conditions
- **Nuova Bianchi S.p.A.** declines all responsibility for damages product to people or belongings in consequence to:
  - Incorrect installation
  - Inappropriate electrical and/or water connection.
  - Inadequate cleaning and maintenance
  - Not authorized modifications
  - Improper use of the distributor
  - Not original spare parts
- Furthermore verify observance of any other eventual local and national standards.

## 6.0 INSTALLATION



### 6.1 Positioning

As already specified in paragraph 5.0, "Safety regulations", the distributor is not suitable for external installation. The machine must be connect in dry places, with temperatures that never go below 1°C it must not be installed in places where cleaning is done with water hoses(ex. big kitchens). It must be installed in places without danger of explosions or fires.

- If positioned near to a wall, there must be a minimum distance from the wall of at least 5 cm. (Fig.6.1) so as to allow a regular ventilation. In no case cover the distributor with cloths or similar.
- Position the distributor, checking the leveling by means of the adjustable feet already assembled on the machines (Fig.6.2). make sure that the distributor doesn't have an inclination of more than 2 degrees.



**WARNING!** Do not position the device near inflammable objects, keep a minimum safety distance of 30 cm.

**Nuova Bianchi declines all responsibility for inconveniences due to the non observance of the above mentioned installation norms.**

If the installation is made in safety evacuation corridors make sure that with the distributor door open there is anyhow sufficient space to pass by(Fig.6.1).

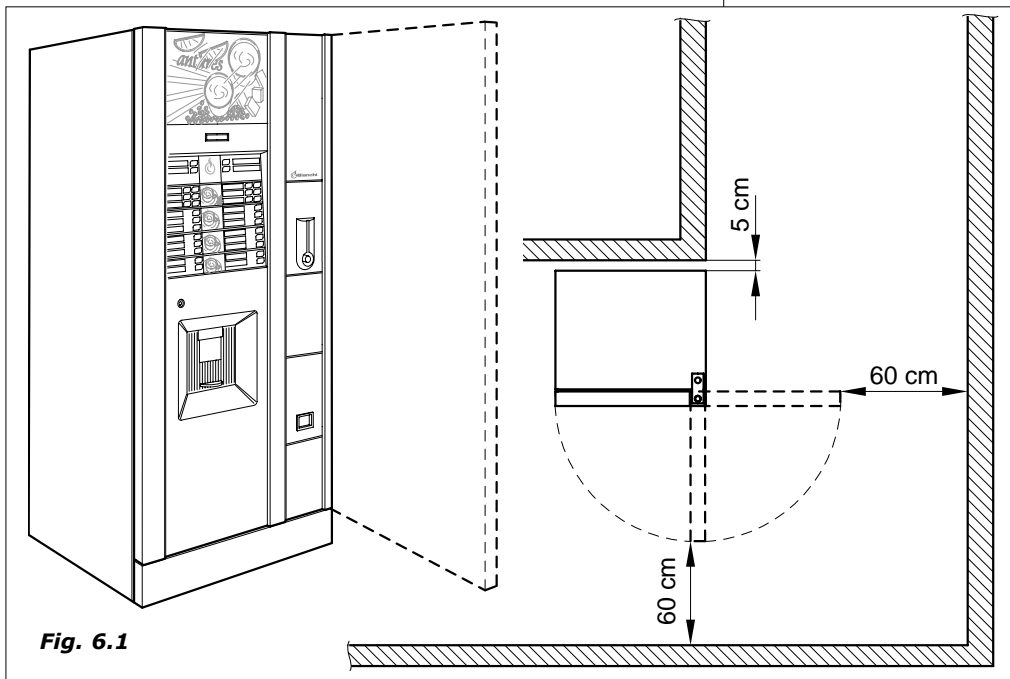
So as to avoid that the floor gets dirty, due to accidental spilling of the products, use, if necessary, under the distributor, a protection sufficiently wide to cover the distributors' operating space.



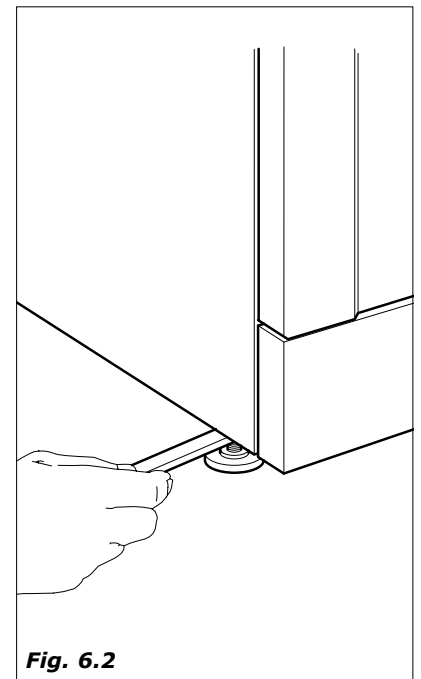
### 6.2 Connection to the main water supply

Before proceeding with the connection of the distributor to the water main supply verify the following water characteristics:

- that it is drinkable (eventually through an laboratory's analysis certification)
- it has a pressure comprised between 0.5 and 6.5 bar (if this should not be the case, use a pump or a water pressure, reducer according to the case).



**Fig. 6.1**



**Fig. 6.2**

- install, if not present, a tap in an accessible position to isolate the machine from the water mains should it be found to be necessary (Fig.6.3).
- before making water connections, make some water flow out of the tap so as to eliminate possible traces of impurities and dirt (Fig.6.4)
- connect the cock to the distributor, using a pipe in nylon material suitable for food products and suitable for the mains pressure. In the event of the use of a flexible pipe it is necessary to fit the reinforcement bush supplied inside (Fig. 6.5).
- the foreseen connection is a 3/ 8 gas (Fig.6.6).

### 6.3 Main Power supply connection

The distributor is predisposed to function with mono-phase 230 Volt tension and is protected with 10A and 20A fuses.

#### **We suggest to check that:**

- the tension of net of 230 V doesn't have a difference of more than  $\pm 6\%$
- The power supply output is able to bear the power load of the machine.
- use a system of diversified protection
- position the machine in such a way as to ensure that the plug remains accessible

The machine must be connected to earth in observance with the current safety norms.

For this reason, verify the plant's earth wire connection to ascertain that it is efficient and it answers national and European safety electric standards. If necessary require the intervention qualified personnel for the verification of the plant.

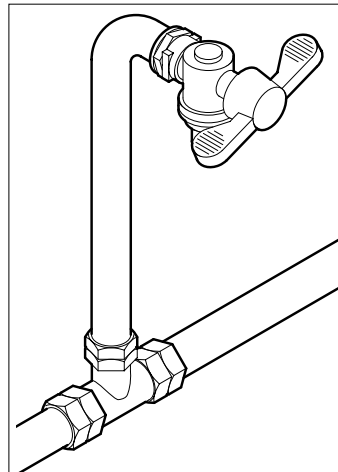
- The distributor is equipped with a power supply cable of H05VV-F 3x1,5mm<sup>2</sup>, with SCHUKO plug (Fig.6.7).
- The sockets that are not compatible with that of the machine must be replaced. (Fig.6.8).
- The use of extension, adapters and/ or multiple plugs is forbidden.
- Models ANE21AR-ANE21AZ-ANE21GG are fitted with specific plugs for ARGENTINA.

**Nuova Bianchi S.p.A.** declines all responsibility for damages deriving for the complete or partial failure to observe these warnings.

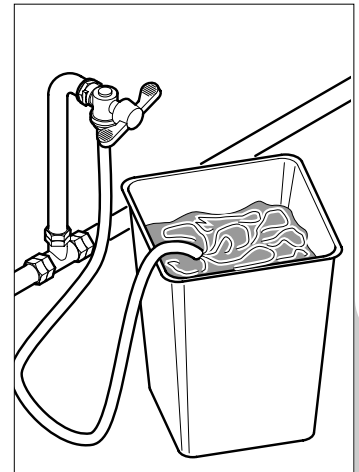
Should the power cable be found to be damaged, immediately disconnect from the power socket.



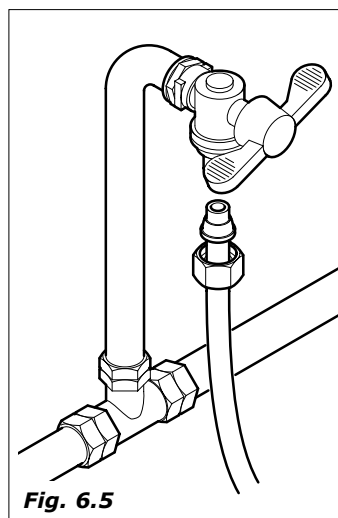
**The power supply cables are to be replaced by skilled personnel.**



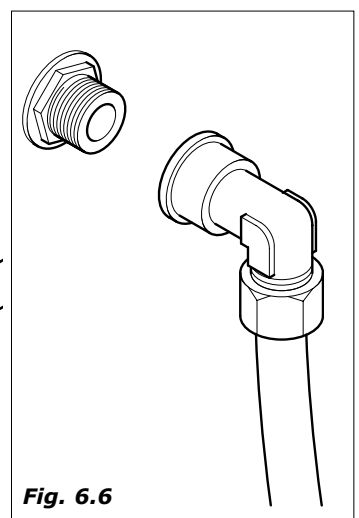
**Fig. 6.3**



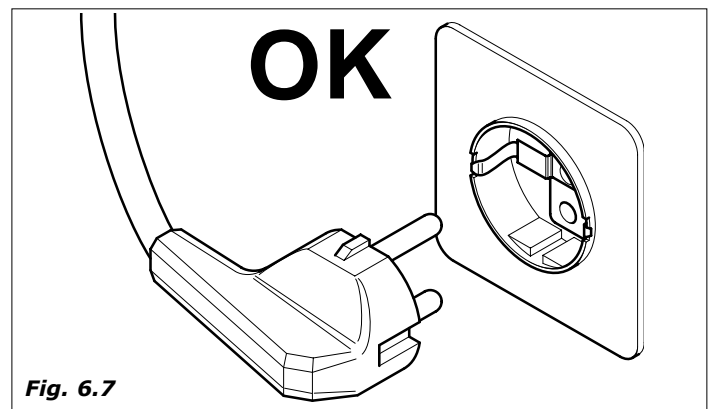
**Fig. 6.4**



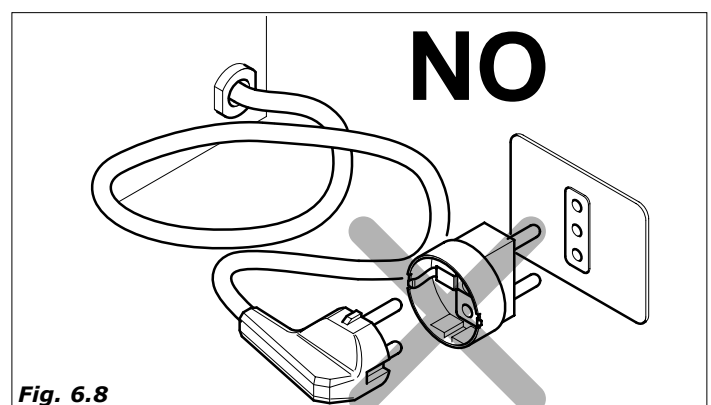
**Fig. 6.5**



**Fig. 6.6**



**Fig. 6.7**



**Fig. 6.8**



#### 6.4 Starting up of the unit

The distributor is equipped with a safety switch (Fig.6.9) that disconnects the machine whenever the door is opened ( see electric schema).

In case of necessity, therefore, open the door or disconnect unplugging of the machine from the power supply.



*The clamp of the power cable junction box remain under tension (Fig.6.10-pos.1) as well as the service switch inside the distributor. (Fig.6.11-pos.1).*

- For some operations is however necessary operate with the door open but with the distributor connected.

It is possible for installation technician, to operate in this way, by inserting the special plastic key, supplied with the distributor, into the door switch and rotating it 90° (Fig.6.12).

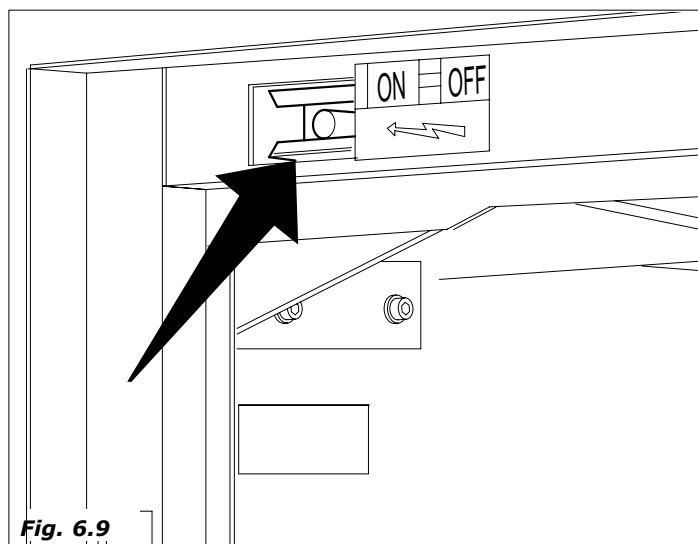


*The opening and the possible connection with the distributor's door open must be performed only by authorized in carrying out these operations.*

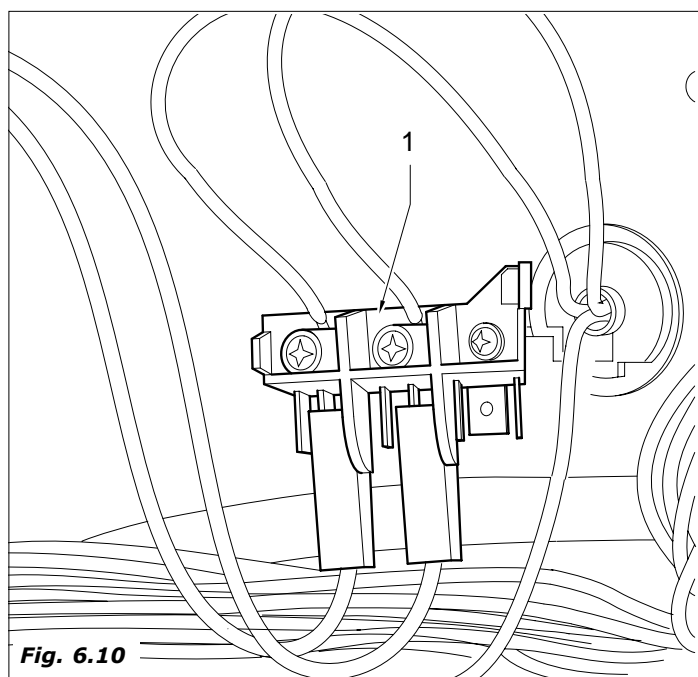
*Don't leave the distributor open and unguarded.*

Give the key only to qualified personnel.

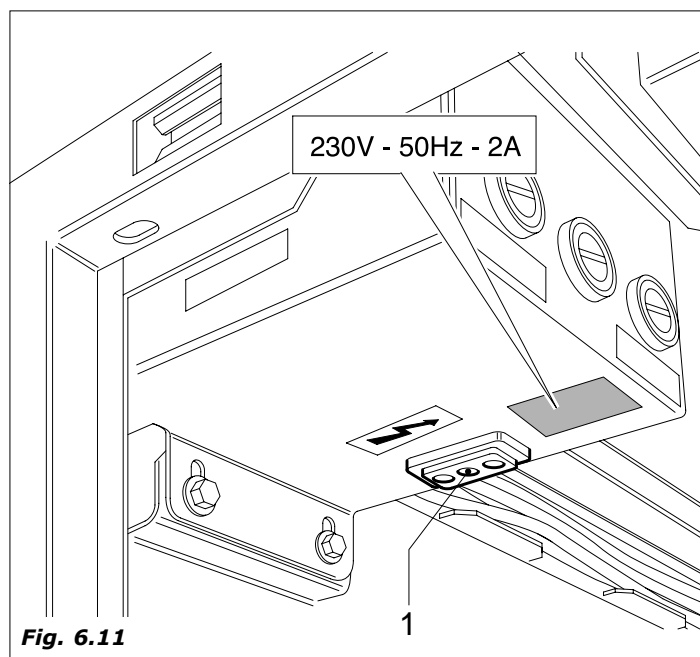
Each time the distributor is switched on a diagnosis cycle is performed in order to verify the position of the mobile parts and the presence of water and of some products.



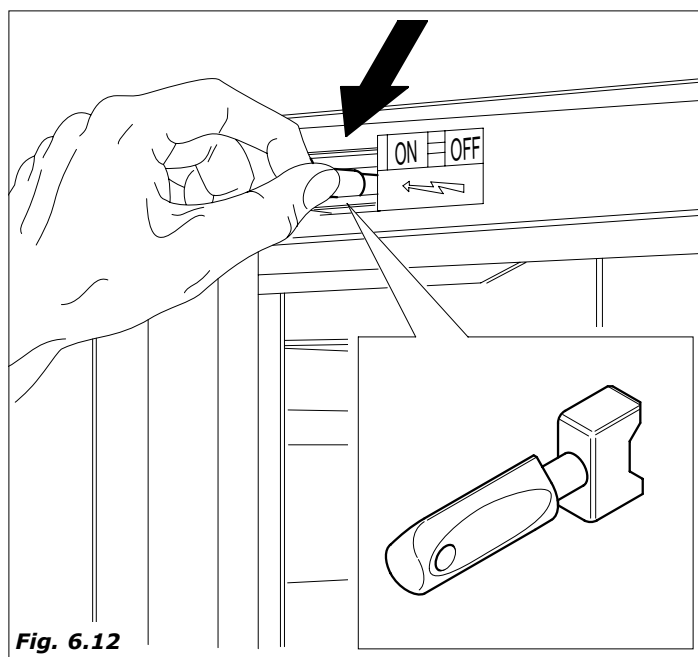
**Fig. 6.9**



**Fig. 6.10**



**Fig. 6.11**



**Fig. 6.12**



## 6.5 Installation

### 6.5.1 Water Softener Resin regeneration

First of all fill the distributor's water circuit, it is advisable effect the water softener resin regeneration (if installed) operating in the following manner:

- insert the pipe of the bottom faucet in a container suitable for this use
- open the faucet (Fig.6.13)
- insert the key in the door switch (Fig.6.12)
- Let the water flow until it is clear (Fig. 6.14).
- Take out the key and close the faucet.



### 6.5.2 Filling the water circuit

The machine fills the water circuit automatically. Remove the boiler protections (Fig. 6.15) and the power circuit board and insert the key into the door switch.

The sequence of the operations will be:

- filling of the floater water reservoir
- at the same time the instant boiler will be filled (if installed). We suggest to sometimes compress the tube that connects the boiler to the water reservoir so as to eliminate eventual air bubbles that could be created, (Fig.6.16).
- when the level set by the floater is reached inside the water reservoir, (Fig. 6.17) the following parts will start operating and i.e.: the cup turret will start to be filled and the coffee group will start and make a test run.
- Once the maximum level is reached, the filling will stop.
- At the end of the water filling, effect a cleaning cycle of the mixer group so as to fill all the circuits and remove eventual residues from the boiler (Fig.6.18).

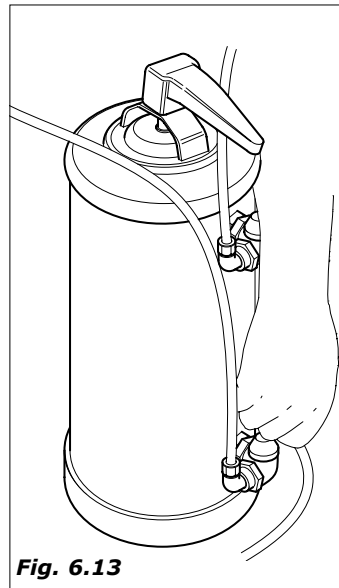


Fig. 6.13

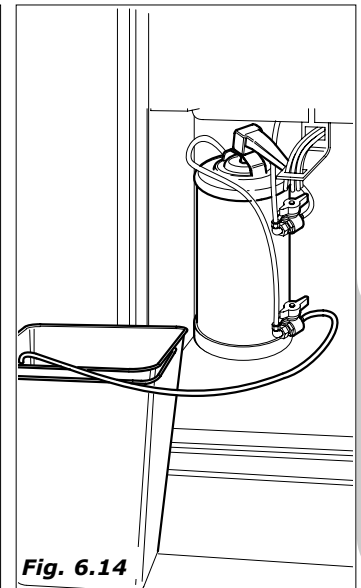


Fig. 6.14

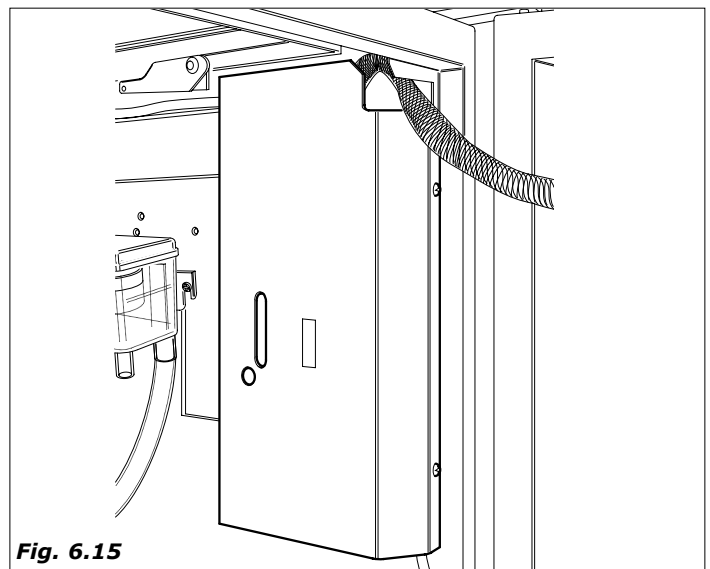


Fig. 6.15

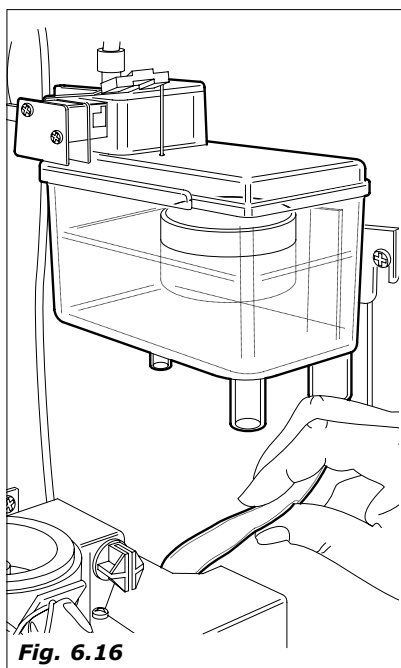


Fig. 6.16

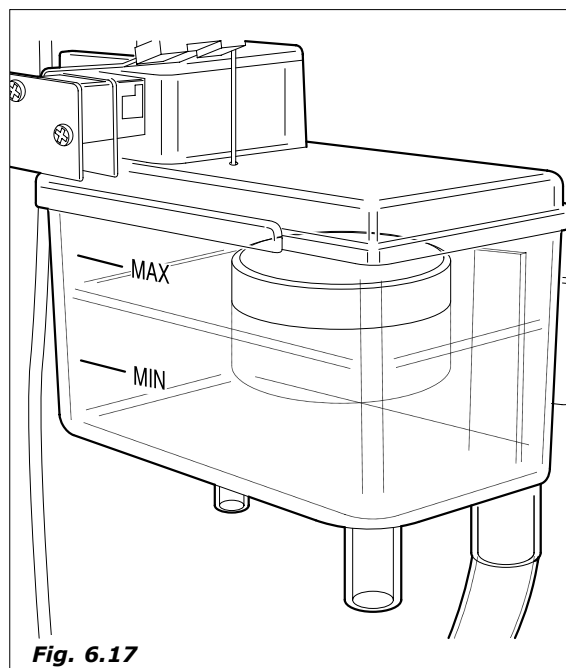


Fig. 6.17

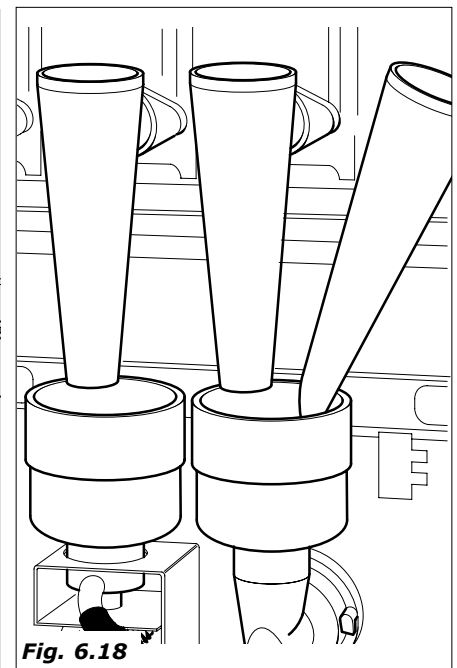


Fig. 6.18

- Make some test selections with water only, on the espresso coffee selections so as to fill the boiler and facilitate the activation of the pump.
- When these operations have been effected, connect the two resistor connectors to the power circuit boards and wait about ten minutes until the operating temperature is reached. (Fig. 6.19)

*Before connecting the power supply, ensure that the distributor has been connected to the water mains and that the water tap has been turned on.*



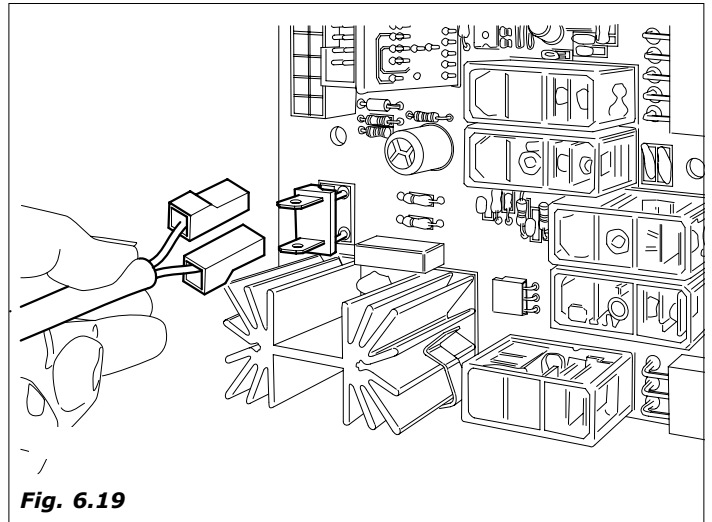
### 6.5.3 Cleaning of the parts in contact with food substances

With distributor switched on effect a cleaning of the mixers pressing the buttons according to what is described in the service functions so as to eliminate any dirt from the coffee boiler and the instant boiler.

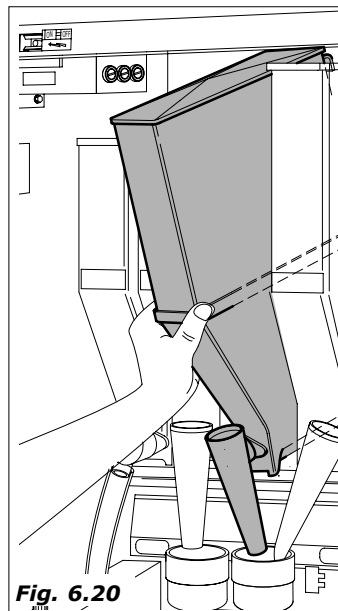
- wash your hands carefully
- prepare an anti-bacterial cleaning solution with a chlorine base (products that can be purchased in pharmacies) carefully following the indications on the product instruction labels.
- remove all the product containers from the distributor (Fig.6.20)
- remove the lids from the product containers covers and product chutes (Fig.6.21). Dip all in the solution previously prepared
- remove all the powder chutes, water funnels, mixing bowls and whippers and silicone tubes and dip these parts also in the prepared solution (Fig.6.22)
- with a cloth soaked with the solution clean the whipper assembly base (Fig.6.23)
- the parts must soak in the solution for the time indicated on the solutions' instruction label.
- Recover all the parts, rinse them abundantly, dry them perfectly and proceed with the re-assembly in the distributor.



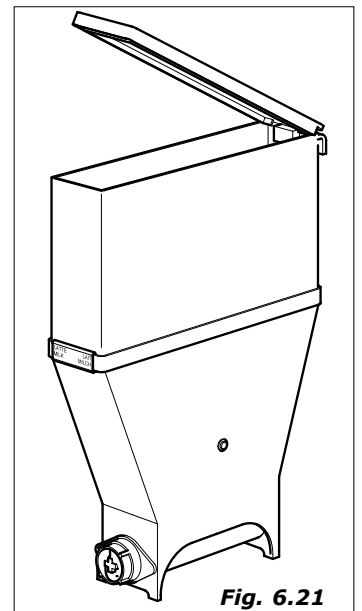
*For further safety after the assembly of the parts, effect some automatic cleaning cycles so as to eliminate any eventual residues.*



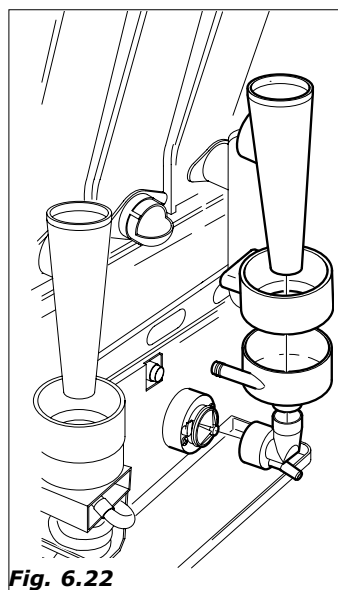
**Fig. 6.19**



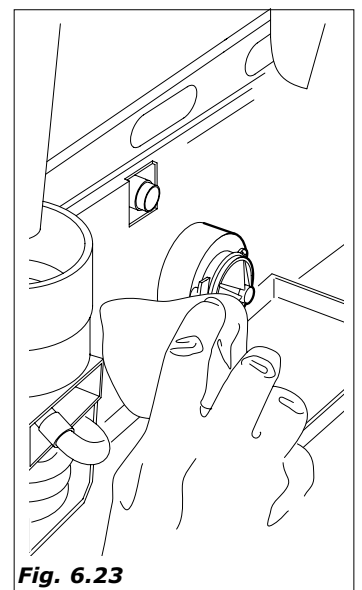
**Fig. 6.20**



**Fig. 6.21**



**Fig. 6.22**



**Fig. 6.23**





#### 6.5.4 Payment system installation

The distributor is supplied without any payment system:  
The installation of the payment system is the responsibility of the installation technician.

Nuova Bianchi will not take responsibility for any eventual damage to the machine itself and/or to things and/or persons due to incorrect installation.

- remove the support bracket from the machine (Fig. 6.24)
- hook the coin mechanism on to the support brackets (Fig. 6.25)
- fix the support with the two knobs.
- connect the coin mechanism to the C.P.U board.

The selectors must be directly connected to the Master board the and the serial executive systems through the interface cable supplied with the machine.

Then go into programming for the correct settings.

Consult chapter "7.0 PROGRAMMING" so as to verify setting of the parameters, that must be coherent with the system used.

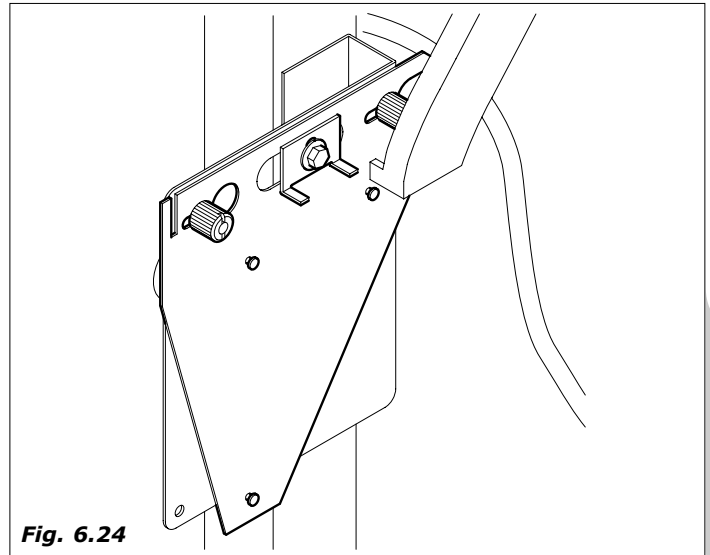


#### 6.6 Product container loading (with machine off)

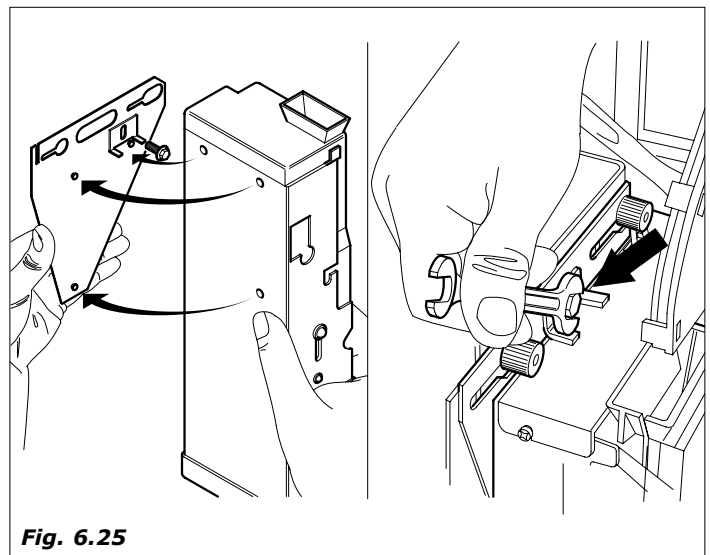
##### 6.6.1 Loading containers

- so as to effect the loading is necessary remove each container. Particularly, for the coffee bean container, it is necessary close the chute door before removing the container (Fig. 6.26).
- remove the covers of each container and load the product according to the product indicated on the label (Fig. 6.27)
- pay attention that there are no clots, avoid pressing the product and using an excessive quantity, so as to avoid its aging in relation to the consumption foreseen in the time period between two loadings.

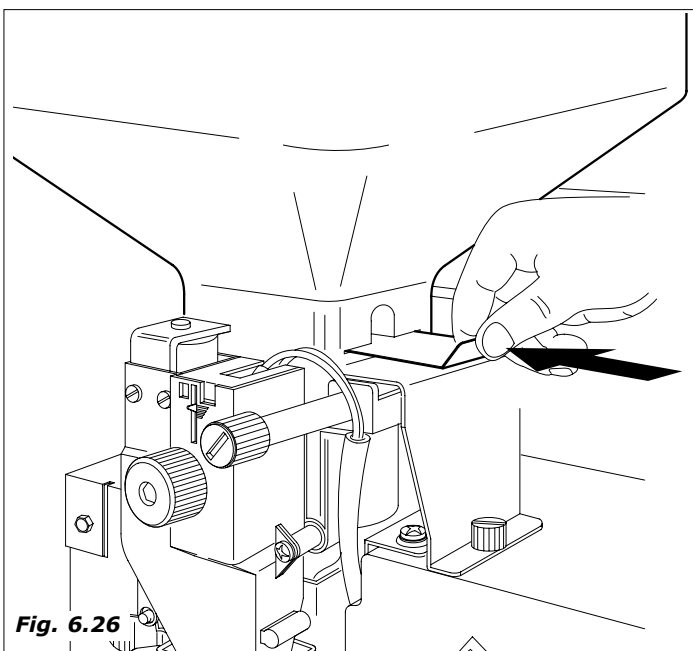
Check the container product capacity in the section TECHNICAL CHARACTERISTICS.



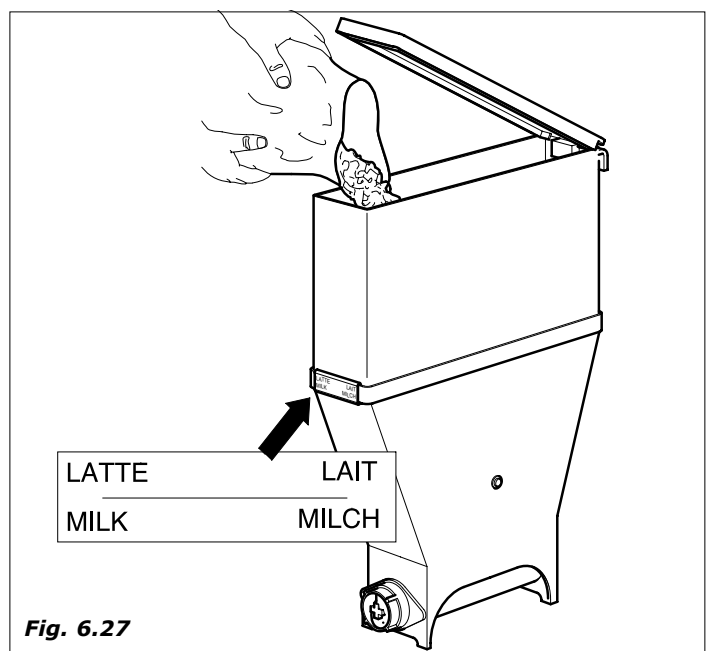
**Fig. 6.24**



**Fig. 6.25**



**Fig. 6.26**



**Fig. 6.27**

### 6.6.2 Product selection label application

- the labels indicating the product selections must be inserted in the special slots according to the order indicated (*Chapter "8.0 MAINTENANCE"*).

Perform the operation as follows:

- remove the cup turret (Fig. 6.28)
- insert the labels in the order according to the selections used on the vending machine (Fig. 6.29)
- re-assemble the whole in inverse order

### 6.6.3 Cup loading

Use only cups suitable for automatic vending machines, with a diameter of more than 70-71 mm, avoid compressing the cups between themselves during the loading. **DON'T TRY TO ROTATE THE TURRET MANUALLY.**

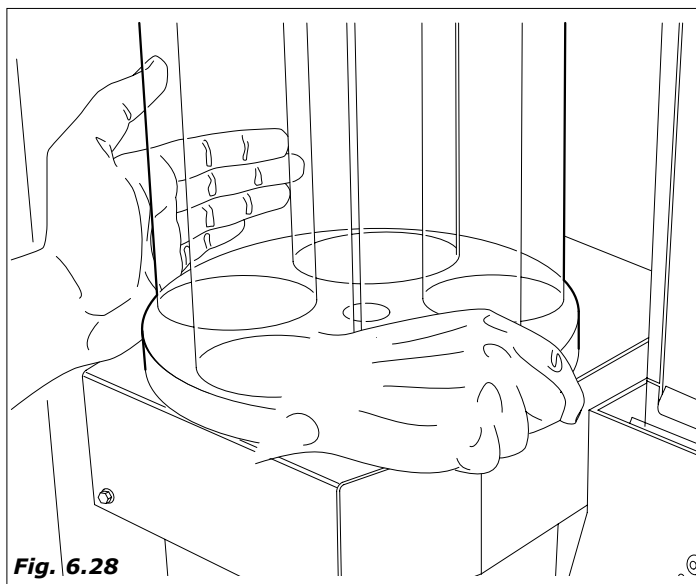
#### First filling

In installation phase with the cup dispenser completely empty, operate as follows:

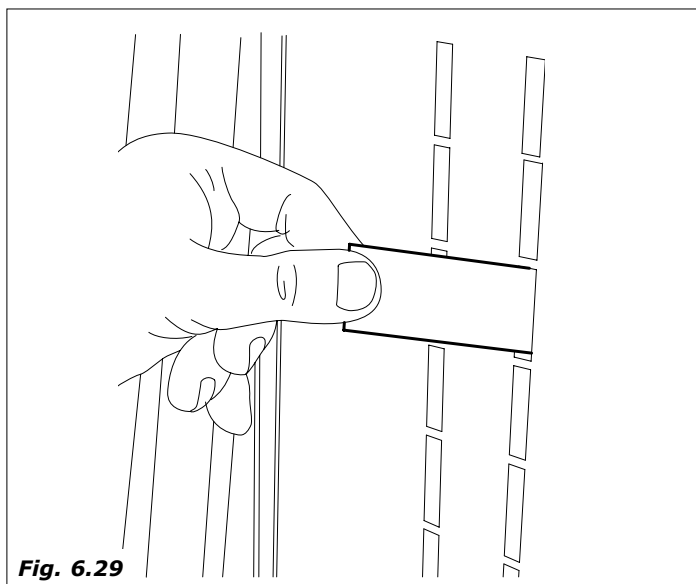
- Check that the cup column is not aligned with the distribution outlet, then fill all the columns proceeding in an anti-clockwise sense, opposite sense (when the column is aligned with the distribution outlet), close the door and switch on the machine so that the cup column rotates and automatically places itself in a position in which it is not aligned with the inlet and then proceed to fill (Fig.6.30).
- Put the cup turret's lid back on (Fig. 6.31).

#### Normal filling

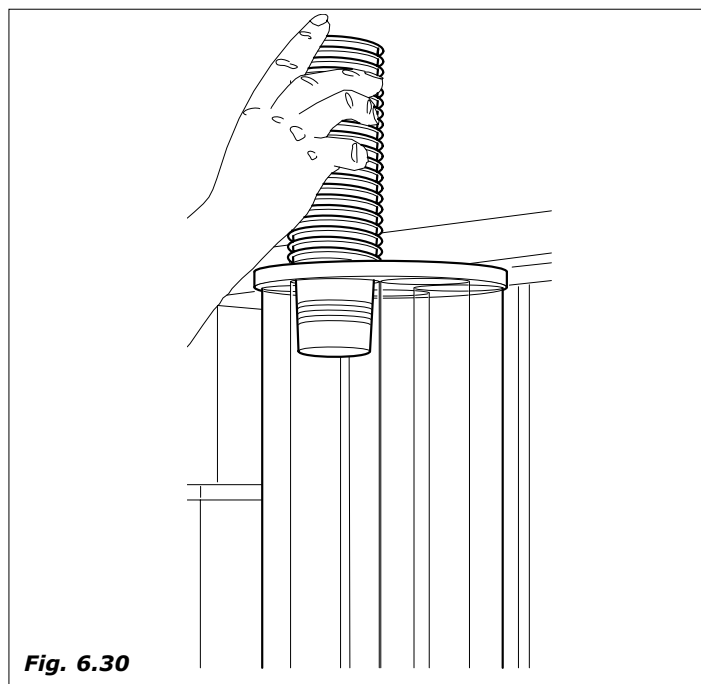
The cup column should normally filled with the machine off, simply by opening the front door, lifting the lid and inserting the missing cups.



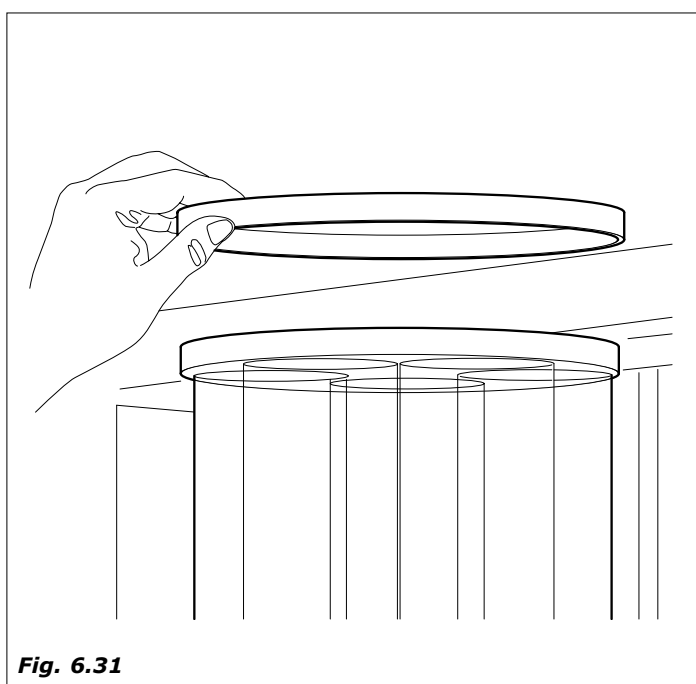
**Fig. 6.28**



**Fig. 6.29**



**Fig. 6.30**



**Fig. 6.31**

#### 6.6.4 Spoon loading

- Remove the metal weight from the spoon dispensing column (Fig. 6.32)
- insert the spoons with their pack wrapping in the column and when they are positioned on the bottom cut and remove the wrapping (Fig. 6.33)
- once the loading is completed put the weight back in the spoon dispensing column.
- Check that the spoon are cut burr-free, that they are not bent and that they are all placed horizontally (Fig. 6.34).

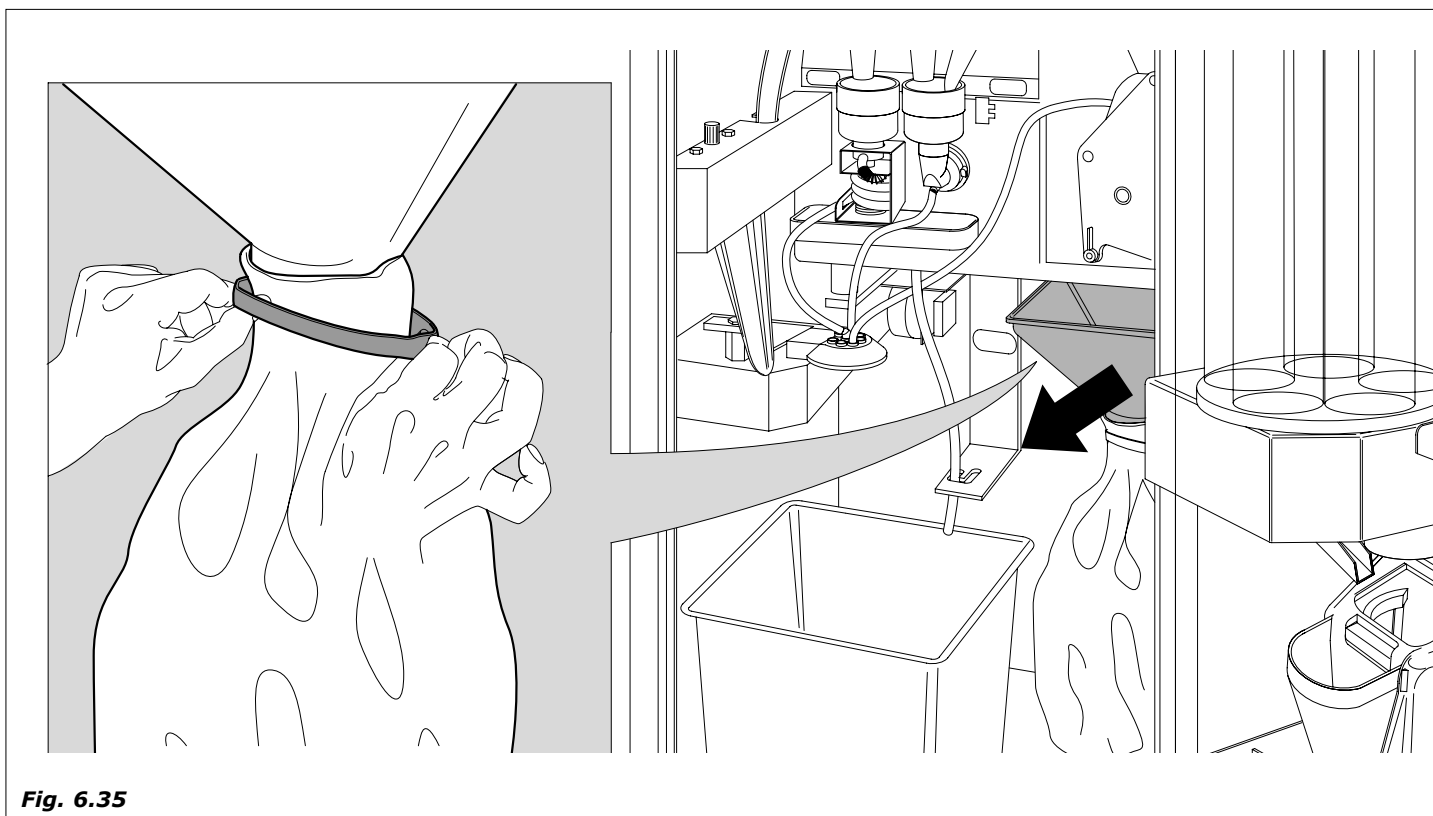
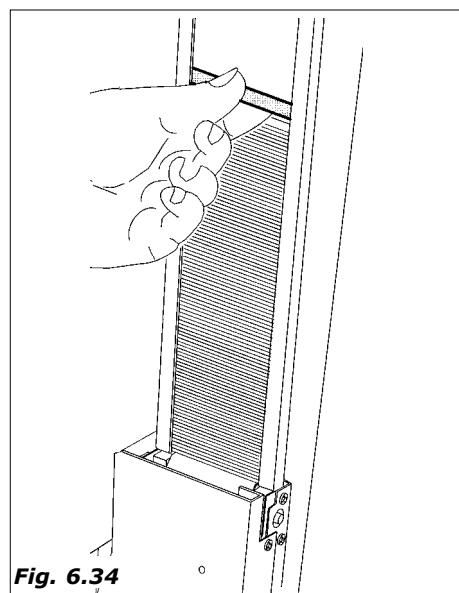
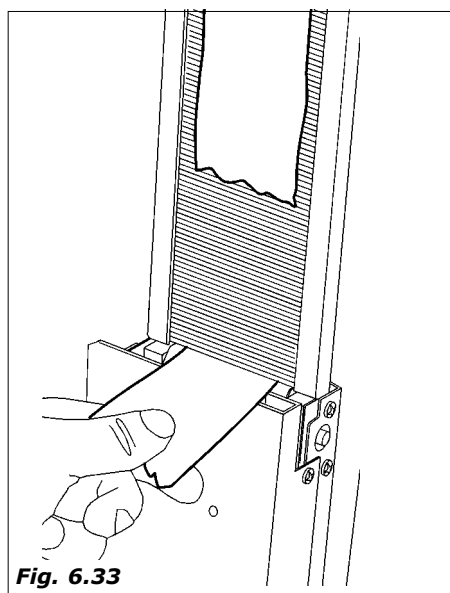
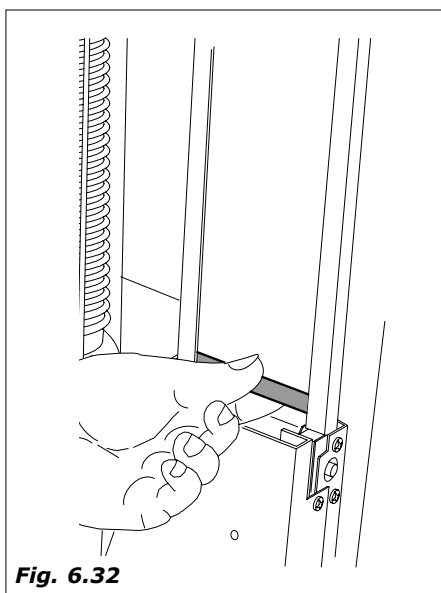
The **ANTARES I** models do not have the spoon dispensing column as the sugar is mixed directly with the products.

#### 6.6.5 Insertion of waste grounds bag

Only for the "coffee in beans version" from its seat

- extract the coffee dreg chute from its slot
- apply the bag locking spring onto the chute
- insert the plastic bag wrapping it around the chute and securing it with the spring (Fig. 6.35)
- re-insert the chute in the guide

Use plastic bags that are sufficiently long so that they touch the bottom of the distributor



## PROGRAMMING INDEX

### 7.1 General description and preliminary operations

#### 7.1.1 Language selection

### 7.2 Function description

#### 7.2.1 TIME-DOSES

#### 7.2.2 TIME SNACK

#### 7.2.3 PRICES

#### 7.2.4 DISCOUNTS

#### 7.2.5 PRICE SELECTION

#### 7.2.6 INCLUDE SELECTIONS/JUGS

#### 7.2.7 MILK FIRST

#### 7.2.8 OPTIONS

#### 7.2.9 COINS

#### 7.2.10 SALES

#### 7.2.11 TEMPERATURE

#### 7.2.12 EURO OPTIONS

#### 7.2.13 MDB DATA

#### 7.2.14 MDB PIPE FILLING

#### 7.2.15 MDB PIPE EMPTYING

#### 7.2.16 EXECUTIVE DATA

#### 7.2.17 CLOCK

## 7.0 PROGRAMMING

With the programming procedures described in this section it is possible to set all the parameters relative to the configuration of the machine, to the setting of the single doses, the prices of the drinks and extract all the vending statistical data.

The "dialogue" between the operator and the machine occurs by means of the 32 digit liquid crystal display and the use of the selection key touch pad.

The distributor is regulated with standard values from the testing stage with Coffee temperature, soluble drink temperature, selections combined with price number "1".

Product regulation = quantity of water and powder, for improved results it is possible to regulate the degree of grinding and dosing.

### 7.1 General description and preliminary operations

#### PROGRAMMING KEY

The programming function is accessed by pressing the button positioned on the Master board. (Fig. 7.1); the request to input an access code to be entered by means of the key touchpad, will appear on the display.

- The display messages are in four different languages that can be selected at choice by the operator during the installation phase (Fig.7.2) (suitable for hardware with potential for expansion to eight languages).

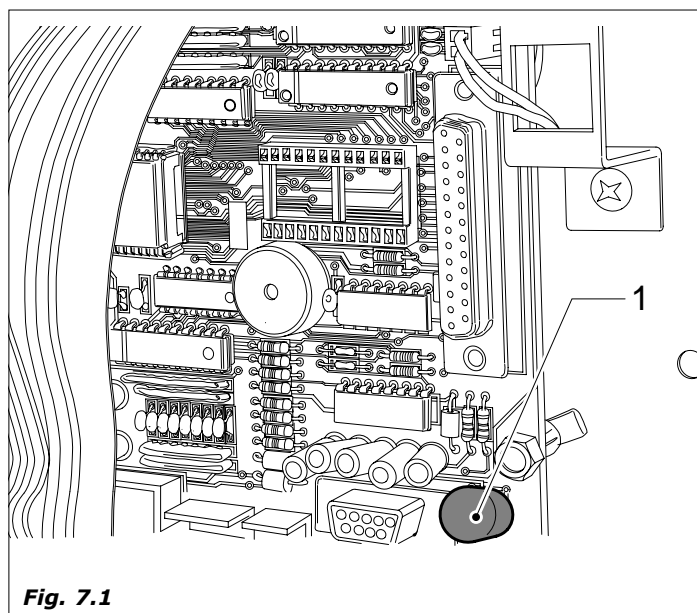
- The programming data can be of two kinds:

- **NUMERICAL DATA**

This is all the data that refers to the water , powder, prices, time and date settings.

- **LOGICAL DATA**

This is all the data that refers to the logical status of the OPTION menus that describe the status (enabled or disabled ) of a specific function.



**Fig. 7.1**

## Programming panel

	A		C	COMPLETE TESTING OF TIMES AND DOSES
	B		D	ESCAPE
1	INCREASE +	1		2
2	DECREASE -	3		4
3	NUMBER	5		6
E	ENTER ↵	21		22
		23		24
		25		26
		7		8
		9		10
		11		12
		13		14
		15		16

For the programming some of the keys of the selection key touchpad are used and i.e.:

### ■ key 1 (and relative sugarless) "+"

Has the double function of increasing the value of a selected figure (for ex: the value of a dose) and/or go through the list of the functions available in the sub menu.

### ■ key 3 (and relative sugarless) "-"

or decrease key , has the function of decreasing the value of a selected figure

### ■ key 5 (and relative sugarless) "NUMBER"

Allows to move the display cursor in correspondence with the digit that has to be changed by means of the previous keys + and -.

### ■ key 21 (and relative sugarless) "ENTER"

is used to confirm the changes done or to go through the OPTION menu.

### ■ key STOP SUGAR "ESC"

exits from the current programming sub-menu to go back to the original sub-menu.

Once the parameter modifications are concluded, you can exit from programming mode by pressing again the key on the Master board.

Once the correct code has been entered one enters the actual programming mode.

There are two codes, the main one which displays all the menus except for the sales menu and the sales menu code, which only displays this last menu.

If the two codes are the same, the entire programming is accessible. Default code: main 00001, sales menu 00000.

If the salve to which the menu entry refers is missing, the corresponding parameter is not displayed and line 2 appears empty.

In general the "+"/"-" keys modify parameters or scroll menu entries displayed on line 2.

## Maintenance panel (espresso version)

TEST W/O SUGAR	A	C	TEST
ONLY WATER TEST	B	D	ALARM RESET
GROUP ROTATION OR ALARM SCROLL	1	TEA OR DECAF MIXER WASHING	2
MILK CHOCOLATE MIXER WASHING.	3		4
	5		6
	21		22
	23		24
	25		26
SELECTION DISPLAY	7	NOZZLE MOVEMENT	8
	9		10
	11		12
	13		14
CUP DISPENSING	15		16

## Maintenance panel (soluble version)

TEST W/O SUGAR	A	C	TEST
ONLY WATER TEST	B	D	ALARM RESET
GROUP WASHING OR ALARM SCROLL	1	MILK CHOCOLATE MIXER WASHING.	2
TEA OR DECAF MIXER WASHING	3		4
	5	NOZZLE MOVEMENT	6
	21		22
	23		24
	25		26
SELECTION DISPLAY	7		8
	9		10
	11		12
	13		14
	15	CUP DISPENSING	16

**KEYBOARD**

The drink selection panel besides being used for the SELECTIONS is also partially used for programming and maintenance.

In particular the keys and their functions are:

**PROGRAMMING**

<b>T1</b> (and relative sugarless) =	<b>+</b> (increase)
<b>T3</b> (and relative sugarless) =	<b>-</b> (decrease)
<b>T5</b> (and relative sugarless) =	<b>number</b> (cursor)
<b>T21</b> (and relative sugarless) =	<b>enter</b> (confirm)
<b>T STOP SUGAR</b> =	<b>ESC</b>

**Vega keyboard:**

<b>T1</b> =	<b>+</b> (increase)
<b>T6</b> or <b>7</b> =	<b>-</b> (decrease)
<b>T3</b> =	<b>number</b> (cursor)
<b>T9</b> or <b>B Vega 600 keyboard</b> =	enter and advance by one heading <b>(confirm)</b>
<b>T2</b> =	<b>ESC</b>

**MAINTENANCE**

extra sugar	selection testing without sugar
extra milk	testing of water only of a selection
without cup	complete selection test
stop sugar	alarm reset

**(espresso version)**

<b>T1</b>	coffee group rotation or alarm scroll
<b>T2</b>	tea or decaff.mixer cleaning
<b>T3</b>	milk/chocolate mixer cleaning
<b>T8</b>	nozzle movement
<b>T7</b>	total entry display (can be cancelled) for 5s
<b>T15</b>	cup release

**(soluble version)**

<b>T1</b>	coffee group cleaning or alarm scroll
<b>T2</b>	milk/chocolate mixer cleaning
<b>T3</b>	tea or decaff.mixer cleaning
<b>T6</b>	nozzle movement
<b>T7</b>	total entry display (can be cancelled) for 5s
<b>T16</b>	cup release

**Vega keyboard**

<b>T1</b>	Alarm scroll (if they are present)
<b>T4</b>	Product testing
<b>T5</b>	Alarm reset
<b>T8</b> or <b>TA</b>	Vega 600: displays total number of entries (which can be cancelled) for 5 s

### 7.1.1 Language selection

So as to go into programming again it is necessary to know the access code or password.

**cod. 00000**

The code to be entered is composed of five digits. The cursor appears under the first; with the keys "+" and "-" (1<sup>st</sup> and 2<sup>nd</sup> of the keyboard) increase or decrease the number; with the 3<sup>rd</sup> key ("number") move the cursor. Repeat the operations until the access code is composed.

Once the code is composed, press the key "Enter" (4<sup>th</sup>) so as to accede to programming.

**the default code is 00001**

On the display, after entering the code, the first function is displayed:

- pressing ENTER you accede to the latter.
- pressing + the next function will be displayed.
- pressing ESC you exit from the sub menu of operation.

**N.B.:** If you are in selection mode you can pass to programming mode.

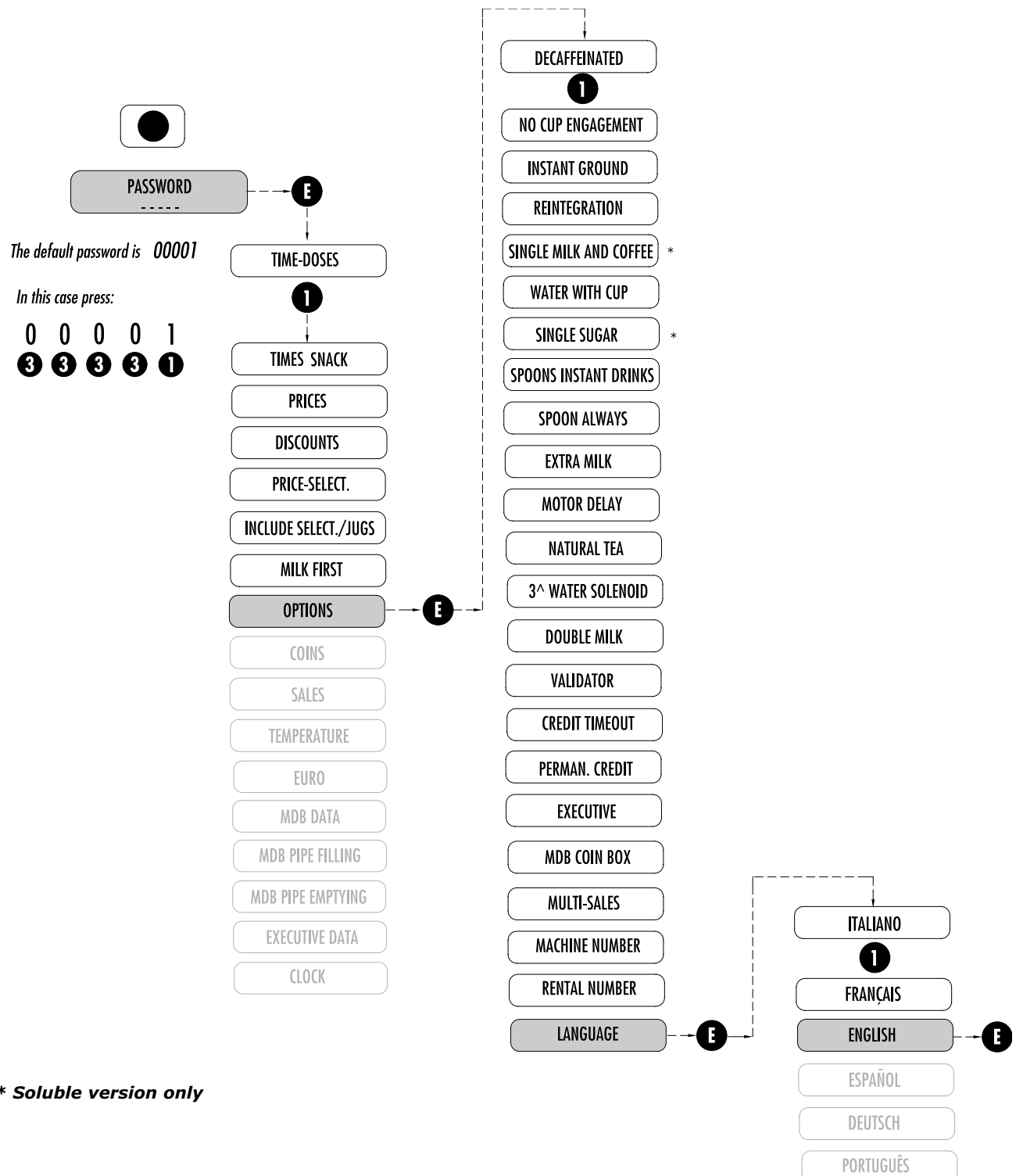


Fig. 7.2

\* Soluble version only

And are in SERVICE mode, after which go first into SELECTION mode and then accede to the PROGRAMMING.

The main menu is composed of:

*TIME-DOSES*

*TIME SNACK (with Master/Slave)*

*PRICES*

*DISCOUNTS*

*PRICE SELECTION*

*INCLUDE SELECTIONS/JUGS*

*MILK FIRST*

*OPTIONS*

*COINS*

*SALES*

*TEMPERATURE*

*EURO OPTIONS*

*MDB DATA*

*MDB PIPE FILLING*

*MDB PIPE EMPTYING*

*EXECUTIVE DATA*

*CLOCK*

**Note:**

- The "clock" menu is only displayed if the clock chip is present automatically sensed by the card.
- The menus relative to the MDB coin box (the last three) are only displayed if the MDB coin box is selected from the "Options" menu.
- The "executive data" menu is only displayed if the executive coin box is selected in the options menu.

The escape from the programming mode press "ESC" until return to the selected mode.

The display visualization is on two lines.

It is possible to make selection by using a programme on the "WinBianchi" PC ".

For each drink, the possible programmable does are indicated under the heading "Sxx".



## 7.2 Function description

### 7.2.1 TIME-DOSES (Fig. 7.4)

This menu gives access to the water and product powder dose settings for each available drink.

Press ENTER once ,on the display appears:

**"Key 01 coffee"**

press ENTER again to start the dose setting operation for the first selection:

**"water 065"**

to indicate the water dose.

With the keys "+", "-", "number", the value of the water dose relative to the espresso coffee selection n. 1 is changed.

Pressing ENTER again confirms the dose set and on the display the subsequent setting appears if it is foreseen (in the case of instant SELECTIONS the powder product) or, in the contrary case, the programme returns automatically to the starting point; on the display appears:

**"Key 01 coffee"**

with the key "+" you can go through the menu and choose the next selection to be changed.

Here below is the combination of the keys and the selections indicated in programming:

**T** = single coffee powder time (soluble version)  
**T** = single milk powder time (soluble version)  
**Sxx** = coffee  
**Sxx** = milk+chocolate  
**Sxx** = tea  
**Sxx** = decaffeinated  
**Sxx** = water  
**Sxx** = sugar

#### group time out (espresso version):

maximum activation time (0÷10.0 s)

#### extra sugar time:

time for the extra sugar dose (0÷10.0 s)

#### extra milk time:

time for the extra milk dose (0÷10.0 s)

#### sugar time (soluble version):

time for the sugar maximum dose (0÷10.0 s)

#### grinder time-out (espresso version):

maximum grinding time (0÷25.5 s)

#### pump timeout (espresso version):

pump timeout (0÷90 s)

#### sugar delay (soluble version):

Single sugar delay (0÷25.5 s)

#### coffee time (soluble version):

Coffee wait (0÷25.5 s)

The control of the coffee water flow is done by means of a flow meter ; the control of the instant SELECTIONS water dose is done by a time setting. The powder dosing of the instant powder products is expressed in seconds.

**NB.:** in the espresso versions, the control of the water dose in the instant selections is done by means of a flow meter.

- The powder delays are engaged by the "Motor delay" parameter in the "options" menu.
- The "no cup" key permits the complete testing of any drink. It must be pointed out that in general any modifications to the delivery options will not come into effect until one escapes from programming mode; it is therefore not possible to see the effect of such modifications on the complete test unless one firstly escapes from programming mode. For example if the machine had the option "natural tea" Off, it is not correct to set it to on immediately after having carried out a complete test of times/doses. It is necessary to firstly escape from programming mode, and then return after carrying out a complete test.

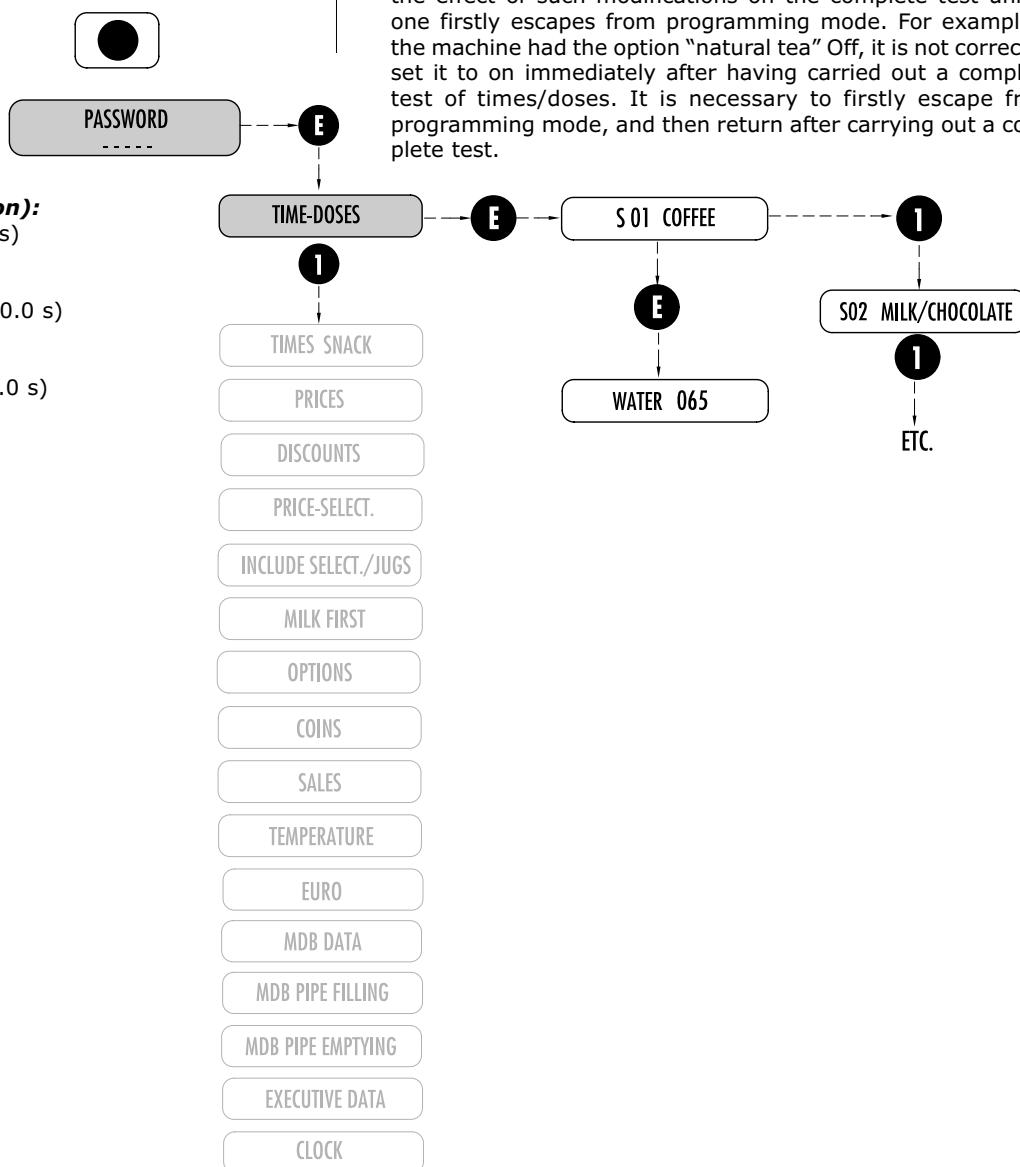


Fig. 7.4

7.2.2 TIMES SNACK (with Master/Slave) (Fig.7.5)

This function makes it possible to check certain parameters of the configuration of the Vega series distributor to which it is connected.

**Note:**  
For access to the headings after "Trial", password 88000 must be entered.

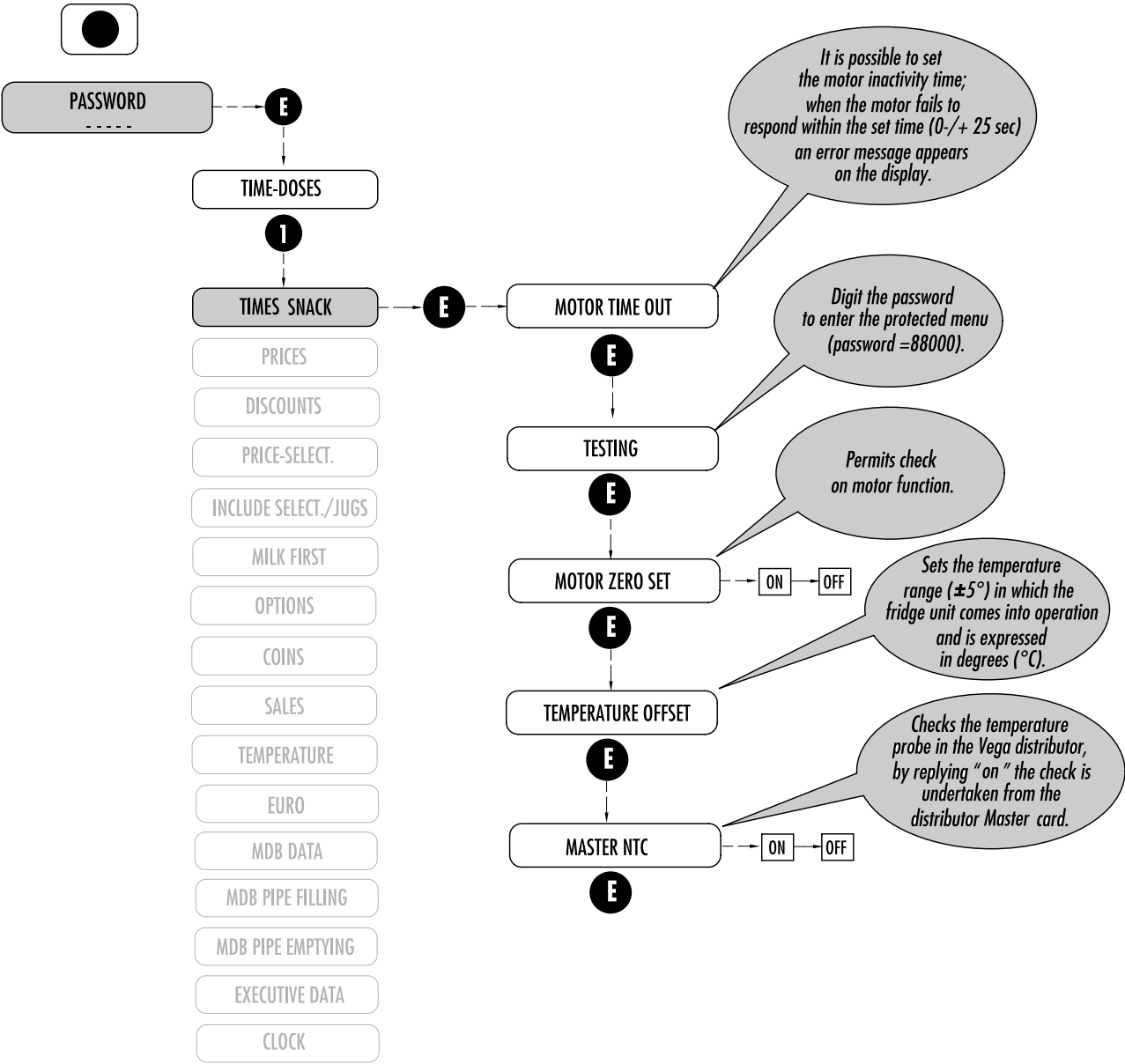


Fig. 7.5

### 7.2.3 PRICES (Fig.7.6)

Up to 30 prices are available and singularly applicable to each selection.

Press Enter to accede to the price table programming; on the display appears:

**"Price 0 0000"**

with the same procedure used for the dose settings, the vending prices are set using the keys "+", "-", "number".

For free vends it is sufficient to set the vending price at zero.

Press ENTER again to confirm the value set and on the display the next price appears:

**"Price 01 0000"**

Press ESC to return to the PRICE menu.

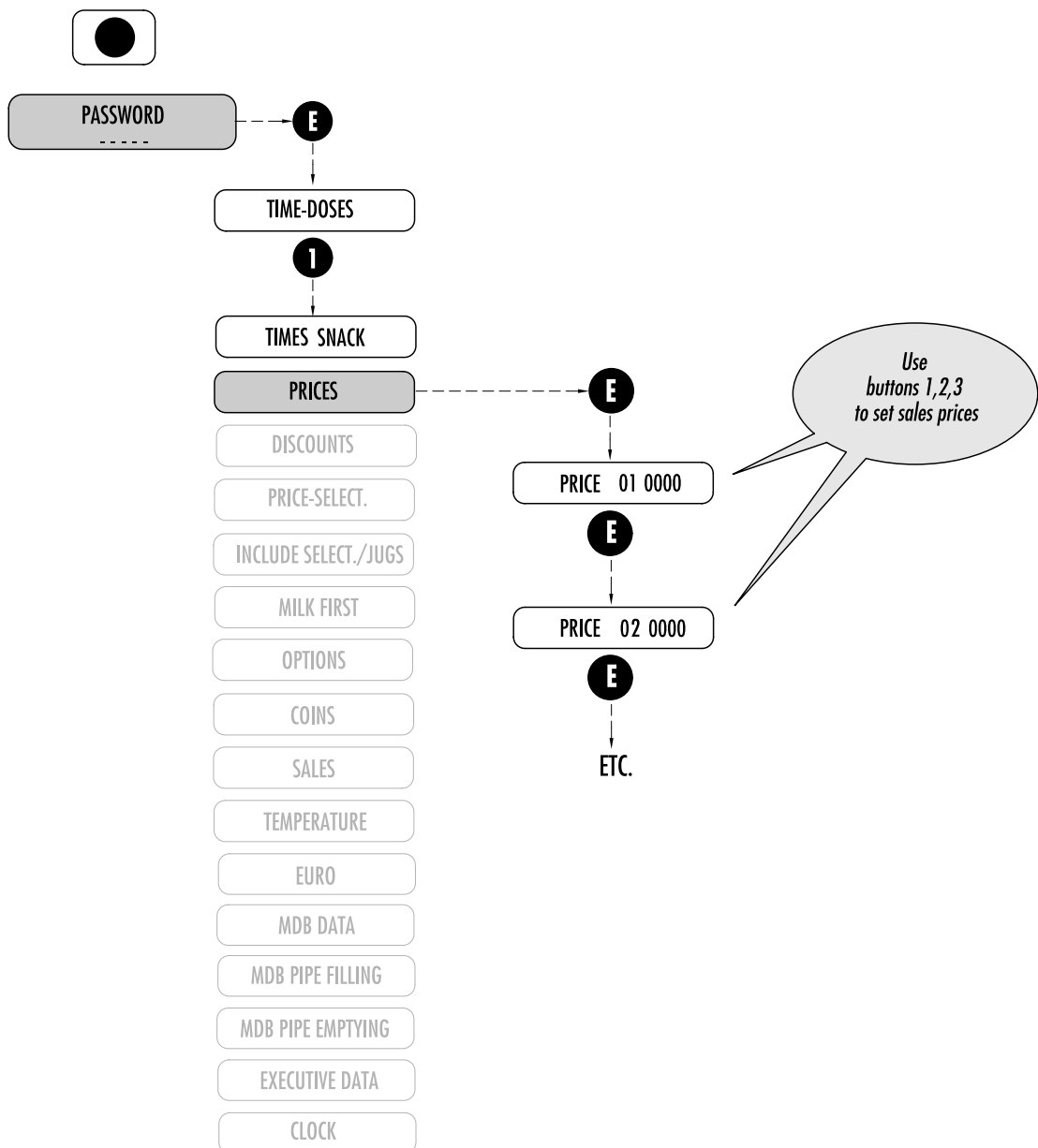


Fig. 7.6

7.2.4 DISCOUNTS (Fig. 7.7)

Up to a maximum of 30 discounts can be programmed (from Discount 1 to Discount 30) as many as the vending prices. Furthermore it is possible to programme a special discount for the exclusion of the cup (indicated with SB).

Press ENTER once, on the display appears:

“Discount 0 0000”

with the keys “+”, “-”, “number”, the discount setting is effected.

Press ENTER to confirm the value set, and on the display the next discount is visualised :

“Discount 1 0000”

Press “ESC” to return to the DISCOUNT menu.

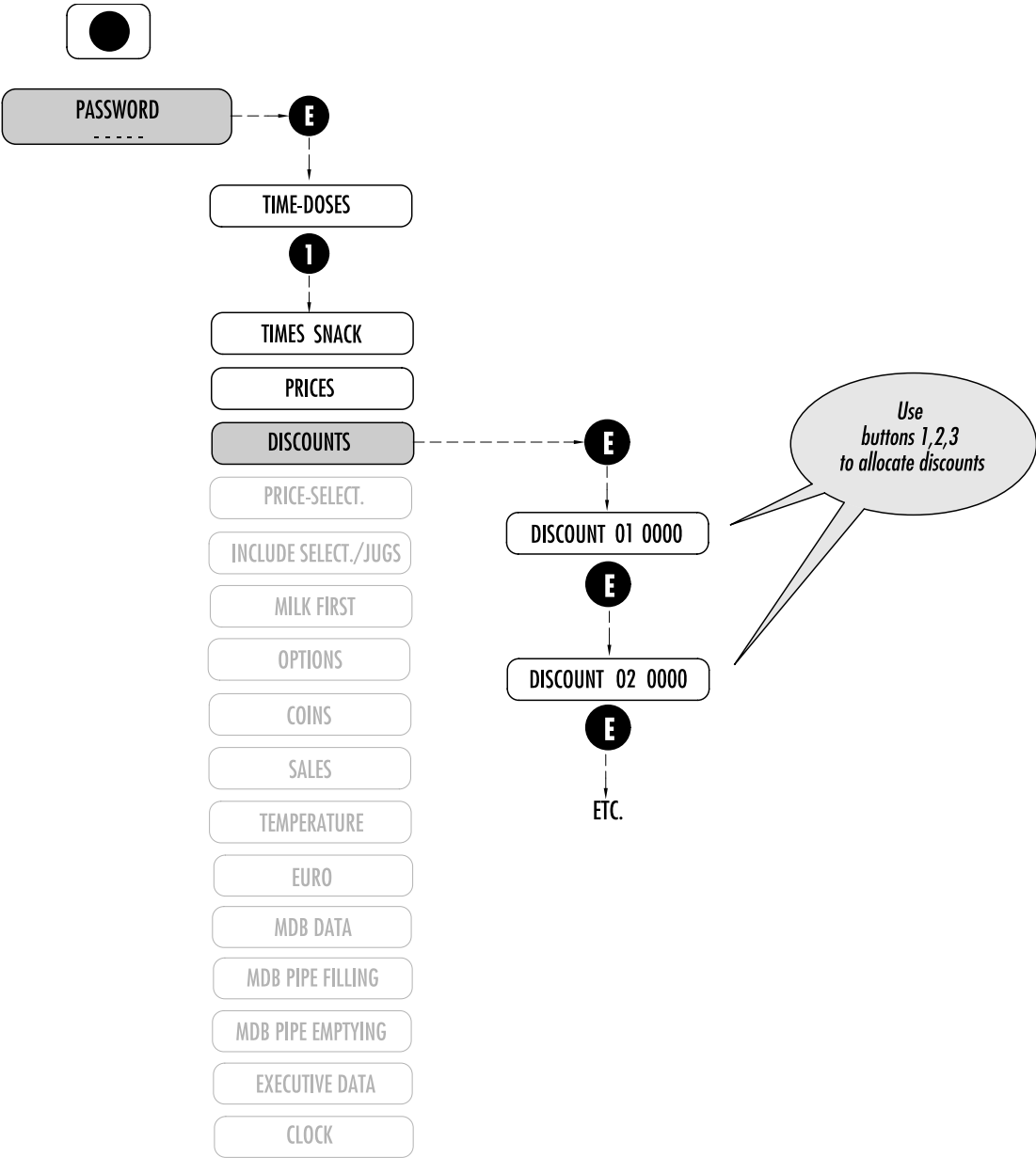


Fig. 7.7

### 7.2.5 PRICE SELECTION (Fig. 7.8)

This menu allows the combination of each single selection (indicated as Key 1, Key 26) to the prices previously set (indicated with Price 1 ÷ Price 30).

Press ENTER to go to the sub menu that programmes all the SELECTIONS at the price P0; on the display appears:

**"All at price 0 ? ON/OFF"**

Using the key "+" the desired option is chosen :

**ON** (= yes) or **OFF** (= no)

Selecting the option ON and pressing ENTER gives access to the programming of:

**"Price extra-milk = 0000"**  
**"Price extra sugar = 0000"**

these regard eventual price increases for the pre-SELECTIONS **extra milk** and **extra sugar**.

Vice versa, selecting the option OFF gives access to the programme of the single price for each single selection as follows:

**"Key 01 = Price 1"**

using the key "+" or "-" you can go through the 30 prices, from Price 1 to Price 30; once the desired price is chosen, it must be confirmed with ENTER passing in this manner directly to the programming of the next drink.

Of course it is possible to combine more than one selection to the same price.

As always , to exit from the sub menu press the ESC key.

ENGLISH

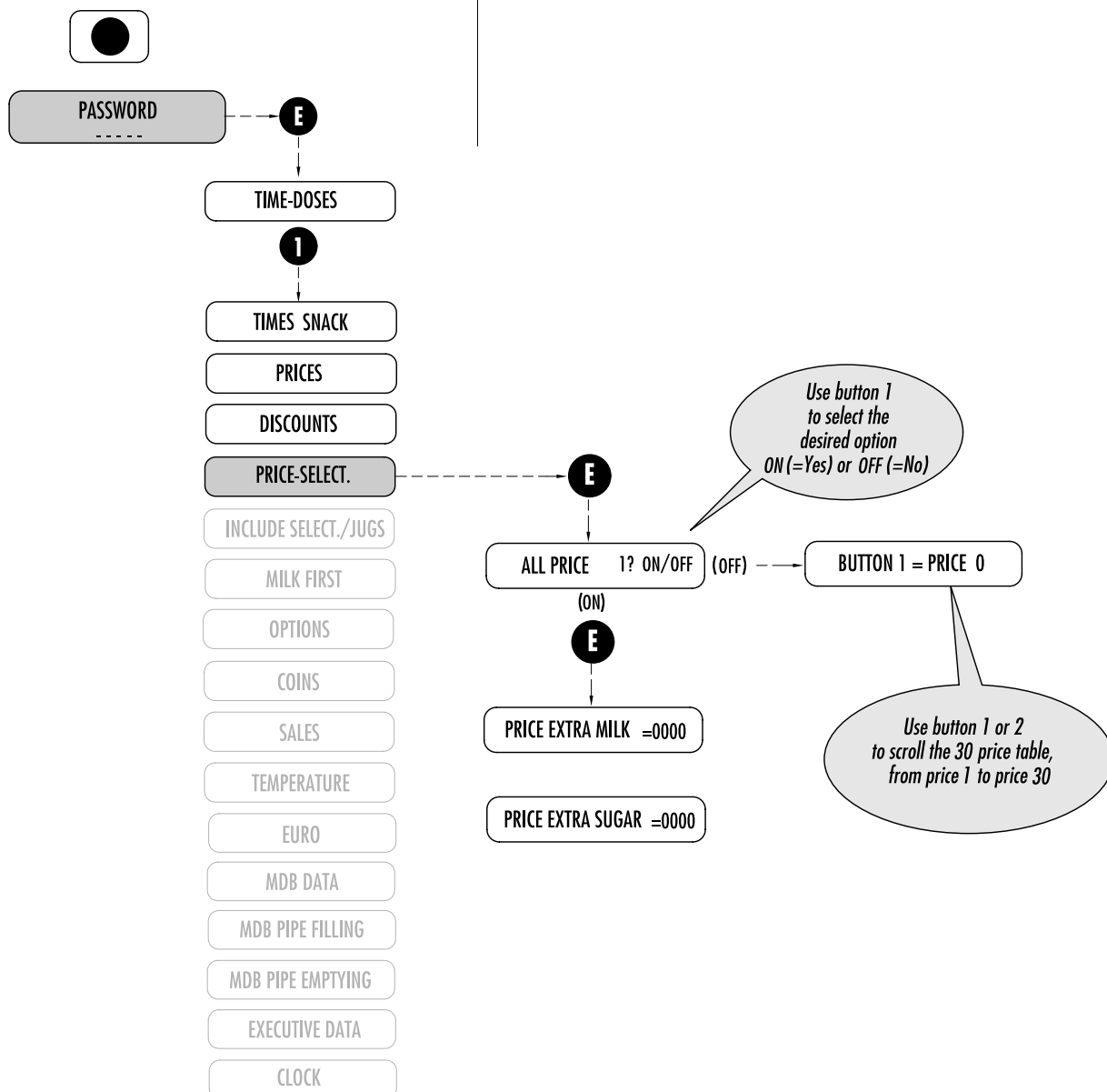


Fig. 7.8

7.2.6 INCLUDE -SELECTIONS/JUGS (FIG.7.9)

The Selections function makes it possible to either engage or disengage the selections (from key 01 to 26)

Pressing ENTER once, on the display appears:

**"INCLUDE key 01 = ON"**

with the keys "+" and "-", the desired option is selected: DIGITING "OFF" THE SELECTION IS EXCLUDED.

Press ENTER again to confirm the value and go ahead to the next selection.

The function JUG allows to dispense consecutively a drink selection without cup for the number of times programmed (available with a kit). This key also makes it possible to activate the chosen selections to the JUG function.

Pressing ENTER once, on the display appears:

**"Jug selec. 01 ON"**

with the keys "+" and "-" the desired option is selected in the same manner as the previous menu:

DIGITING "ON" THE SELECTION IS INCLUDED

The number of consecutive drinks dispensed for the JUG can be set in the menu OPTIONS; JUG 1 is combined with selection 1; JUG 2 is combined with all the other SELECTIONS.

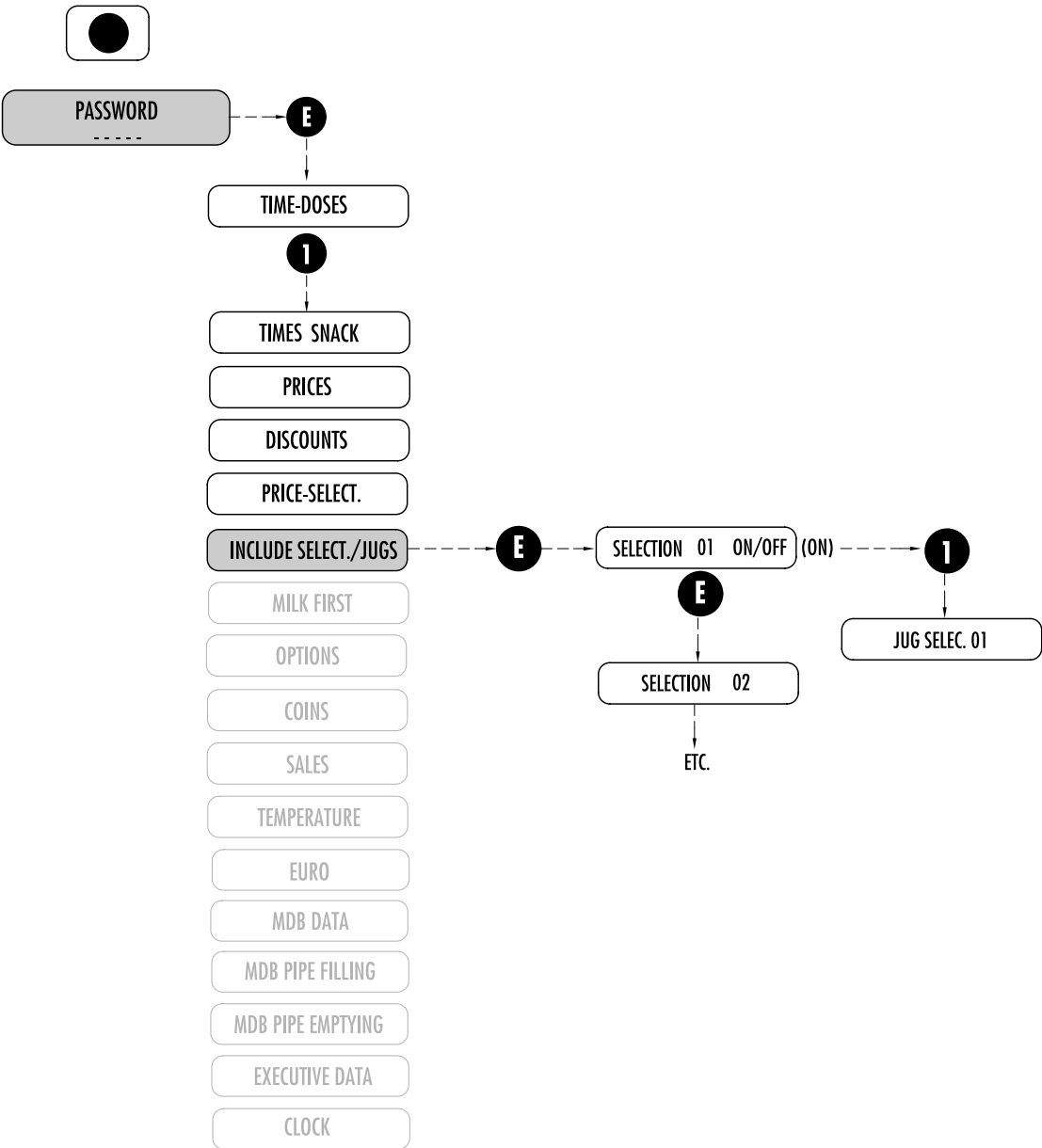


Fig. 7.9

### 7.2.7 MILK FIRST (Fig. 7.10)

- Milk first 01** activate drink 1 milk first option 1 [On/Off]
- Milk first 26** activates drink 30 milk first option 22 [On/Off]

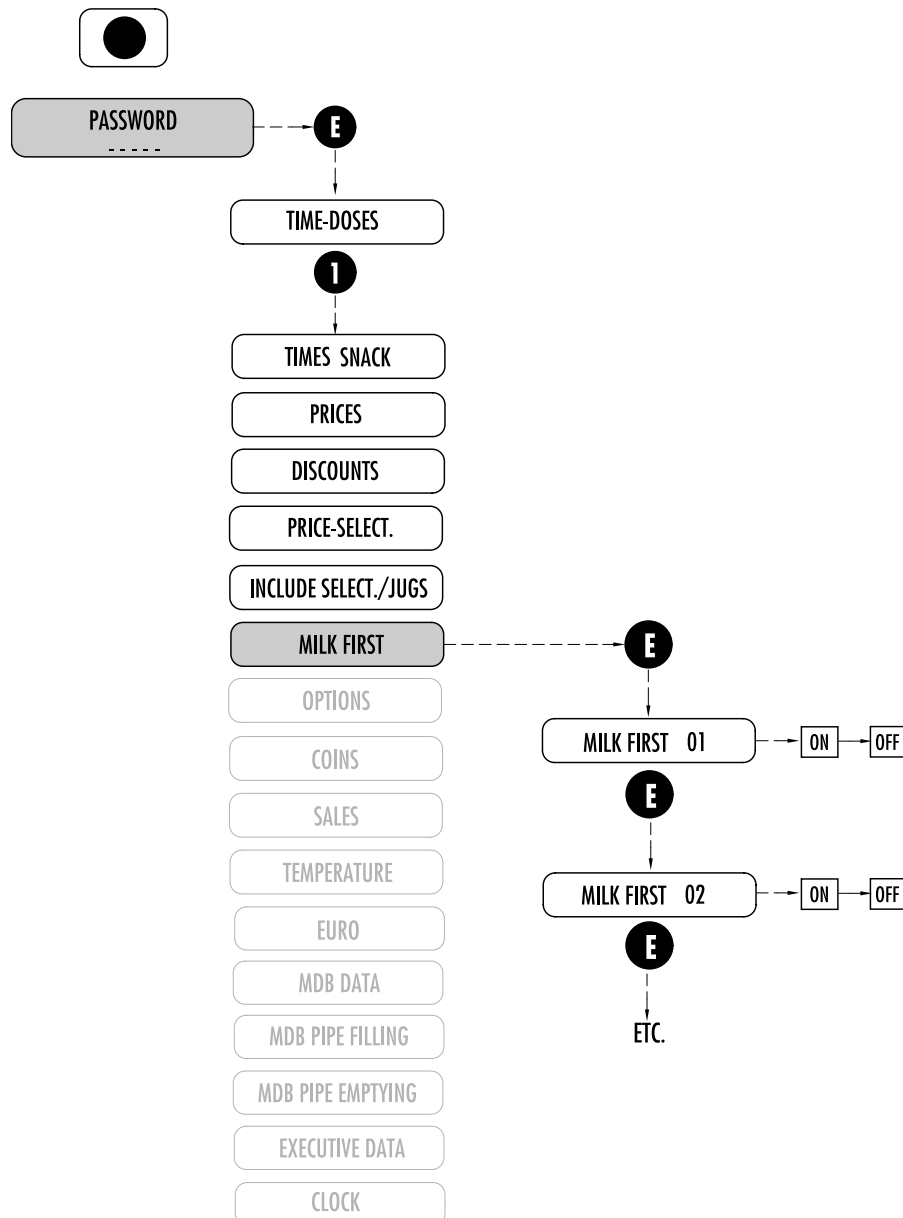


Fig. 7.10

### 7.2.8 OPTIONS (Fig.11)

This function renders available in sequence a series of OPTIONS as listed below; the ENTER key gives access to the sub menus visualising the first option.

For each OPTION it is necessary to set the logical status "ON" or "OFF" that does or does not enable the function.

<b>Decaffeinated</b>	= enabling of the decaffeinated preselection key (ON/OFF)
<b>No cup engagement</b>	= engages the "cup less" state (ON/OFF)
<b>Fresh ground</b>	= option for fresh ground coffee (ON/OFF)
<b>Reintegration</b>	= reintegration engagement (ON/OFF)
<b>Water with cup</b>	= engagement of cup for hot water (ON/OFF)
<b>Spoons for instant drinks</b>	= option to dispense the spoon also for the instant drinks (ON/OFF)
<b>Spoon always</b>	= option to dispense the spoon also for the drinks without sugar (ON/OFF).
<b>Motor delay</b>	= option to introduce a delay on the powder product motors (ON/OFF)
<b>Natural tea</b>	= natural tea engagement [On/Off]
<b>Extra milk</b>	= enabling of the extra milk pre-selection key (ON/OFF)
<b>3<sup>rd</sup> water solenoid</b>	= engagement of 3 <sup>rd</sup> solenoid for hot water (ON/OFF)
<b>Double milk</b>	= double milk engagement [On/Off]
<b>Validator</b>	= coin box engagement G13 (ON/OFF)
<b>Credit timeout</b>	= recovers credit if the drink delivery fails (Vega) (ON/OFF)
<b>Perman. Credit</b>	= engages credit timeout lasting 3 minutes (ON/OFF)
<b>Executive</b>	= Executive coin mechanism
<b>MDB coin box</b>	= MDB coin box activation (coins only) (ON/OFF)
<b>Multi-sales</b>	= option for the selection of residual credit visualization for 3 minutes (ON), or zeroing of the same at the end of the dispensing operation (OFF)
<b>Machine number</b>	= Machine number (0÷999999)
<b>Rental number</b>	= Rental number (0÷65535)
<b>Language</b>	= Language used for message visualization on the display
<b>Vega type</b>	= type of Vega machine [Snack, Pan]
<b>Decimal point</b>	= Display of the sum with decimal point (00000, 0000.0, 000.00, 00.000)
<b>Washing</b>	= Engages automatic washing (ON/OFF)
<b>Washing cycle</b>	= Engages, with the need for any expansion cards, of a mixer washing cycle 30 minutes after switching on, and second following providing that no other dispensing operations are effected in the subsequent 12 hours, to restart the cycle at least one selection is necessary. One mixer washing cycle a day is therefore guaranteed (ON/OFF)
<b>Jug 1</b>	= n. consecutive CONCENTRATED COFFEE deliveries in jug mode (0÷99)
<b>Jug 2</b>	= n. consecutive deliveries of all drinks, except CONCENTRATED COFFEE in jug mode (0÷99)
<b>Purifier*</b>	= de-counter, with indicator for de-scaler resin replenishment

<b>Coffee grinders*</b>	= de-counter, with indicator for grinder replacement
<b>Coffee filters*</b>	= de-counter, with indicator for filter renewal
<b>NTC from master</b>	= NTC probe read from the master card (ON/OFF)
<b>Grinder threshold</b>	= threshold for the reading of the grinder power voltage (5.0/18.0)
<b>Code</b>	= new programming access code (00000÷99999)

#### Note:

- The MDB coin box has priority over the other coin boxes, followed by Executive and then G13.
- The "Credit timeout" parameter exclusively refers to the Vega card.
- The "Perman credit" parameter only functions if "Multi-sales" is engaged.
- The "Credit timeout" and "Permanent credit" are only active with coin and G13.
- The "Multi-sales" parameter is not active with executive coin box.
- The last 4 languages may be selected only if the additional eeprom on card is inserted.
- The "Decimal point" parameter is not displayed if the executive or MDB coin boxes are engaged.
- "Grinder threshold" parameter: if the reading of the grinder current exceeds the planned threshold (after a dead time of at least 0.8 seconds after switching on), the grinder is switched off for 2.5 seconds then switched on again for 0.8 seconds after which the voltage check is reactivated and so on.

\* do not however stop the functioning of the distributor.

With the keys "+" and "-", the logical values status can be changed from "yes" (ON = enabled) to "no" (OFF = disabled) or with the keys "+", "-", "number" the numerical values can be changed.

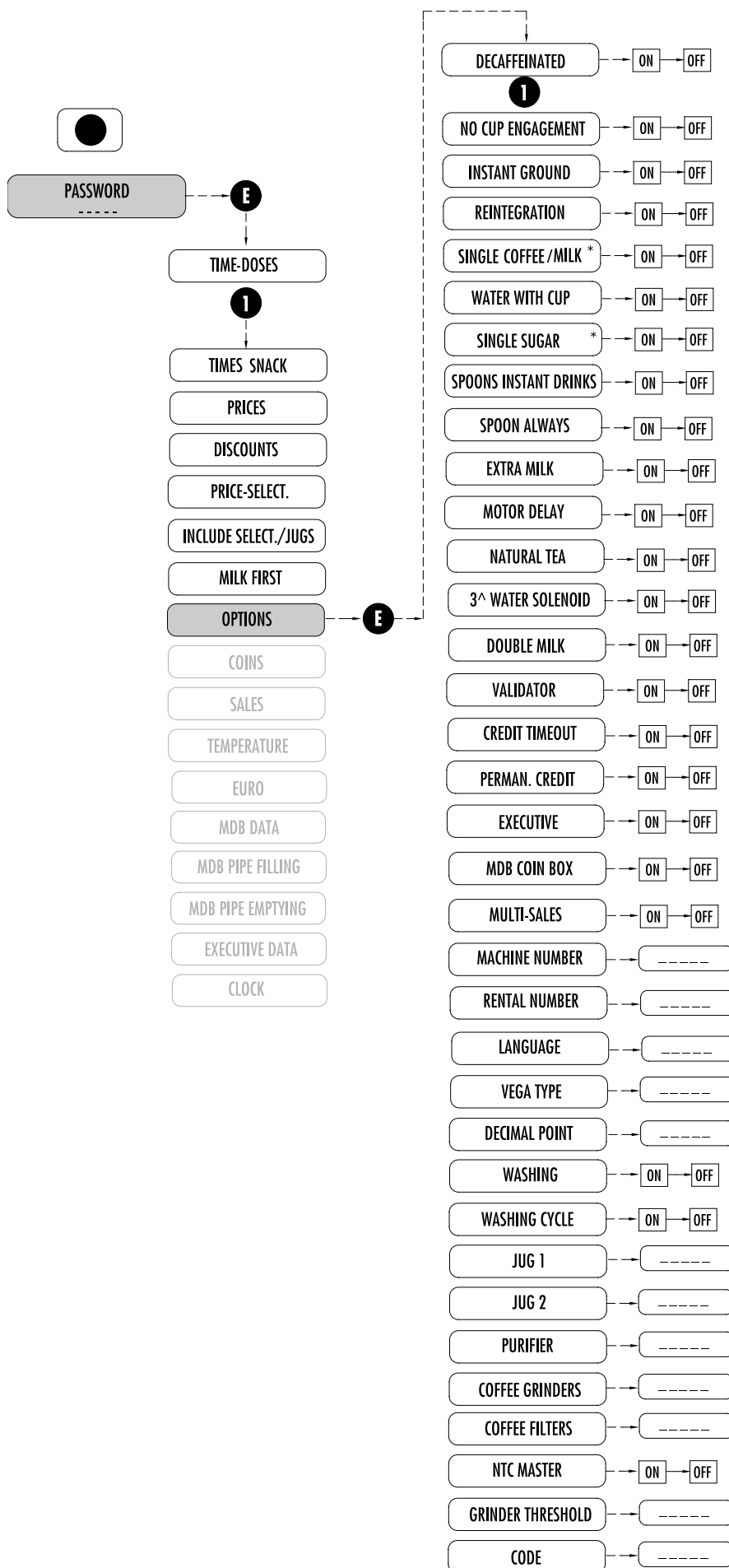
Press ENTER again to confirm the value set and on the display the next operation is visualised ; press ESC to return to the OPTIONS menu.

#### Specific OPTIONS for ANTARES I

**Single coffee/milk** = option to have the same setting of coffee powder and milk powder for all coffee and milk selections (ON) or to have an independent setting of the two powders for each coffee and milk selection.

**Single sugar** = when switched to "OFF" each single selection can be set with the "Sugar" and "Extra sugar" options. When switched to "ON" there will be one setting for the "Sugar" option and one setting for the "Extra sugar" option.





\* Soluble version only

Fig. 7.11

**7.2.9 COINS (Fig.7.12)**

Access to this menu permits the programming of the coins (from coin 1 to coin 8) in order to make them compatible with the system used ; subsequently verify that the coin mechanism channels correspond to the same vending machine channels.  
Press ENTER once, on the display appears:

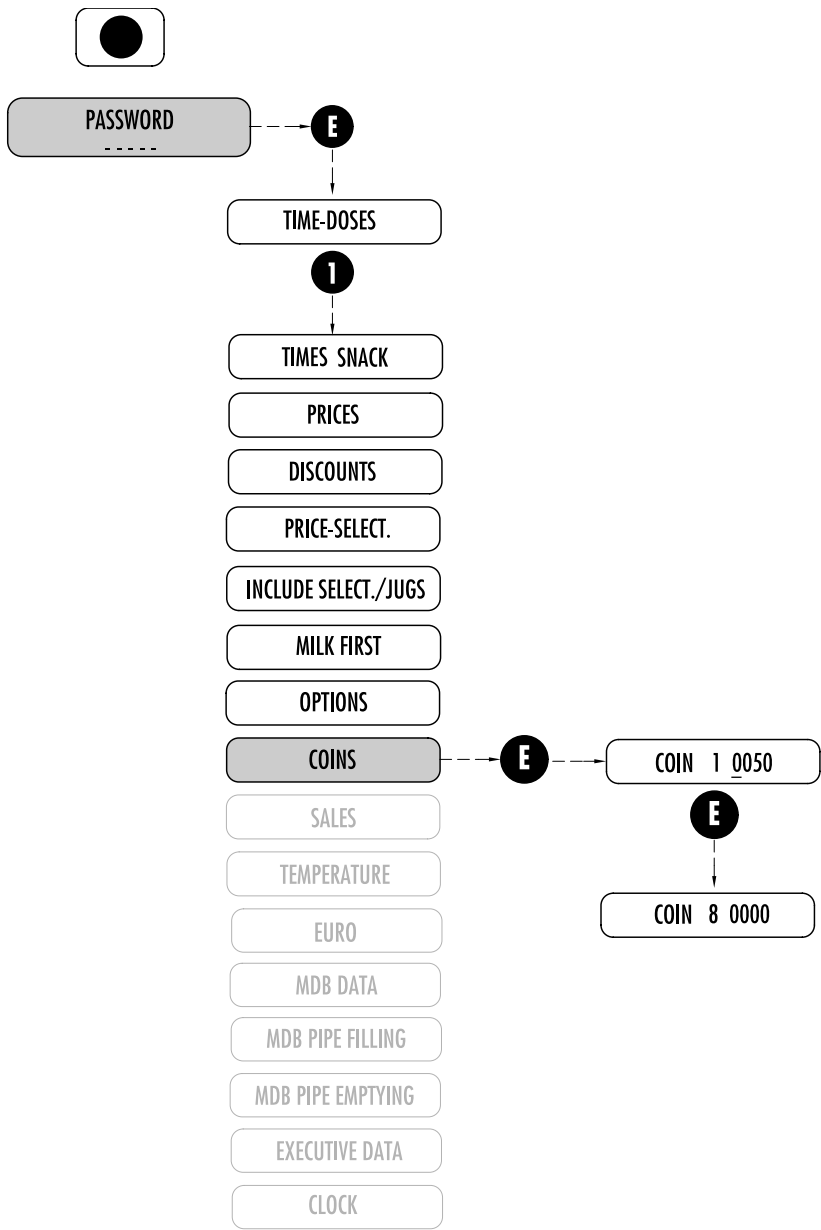
**"Coin 1 0050"**

with the keys "+", "-", e "number" the value is changed.  
Press ENTER to confirm the set modification and anyhow the value visualised on the display and passes on to the next coin and i.e.:

**"Coin 8 0000"**

this channel is used for setting the value for the obliterator cut or for the token using the specific interface kit.

Press ESC to return to COINS menu.



**Fig. 7.12**

### 7.2.10 SALES (Fig.7.13)

Gives access to all the selling statistics audited by the machine. Confirming with the ENTER key, gives you access in sequence to the following menus for statistical data and the processing of the same:

<b>TOTAL TCASH</b>	= total of the non cancellable sales prices
<b>CASH</b>	= total for the cancellable sales prices
<b>DISCOUNT</b>	= discounted value total
<b>OVERPAY</b>	= total cash without sales ( <b>N.B.</b> active only for coins and G13)
<b>TOTAL COUN</b>	= total sum of the selections made (sales + tests) which cannot be cancelled
<b>COUN</b>	= total sum of the selections made (sales + tests) which can be cancelled and the total sum of each selection.
<b>FREE</b>	= total count and count per each single selection of the free SELECTIONS (with the option free vend key)
<b>JUG</b>	= total count and count per each single selection of the JUG SELECTIONS (with the option JUG key).
<b>TEST</b>	= total count and count per each single selection of the test SELECTIONS.
<b>COINS</b>	= total of each single coin introduced.
<b>SALES CODE</b>	= sales code setting
<b>ERASE ALL</b>	= function for resetting the auditing data

To reset the data operate as follows:

- go to CANCEL
- press ENTER key
- COD 0000 will appear on the display
- input the resetting code using the same criteria.
- press ENTER
- request if you wish to change the resetting code will appear.
- press the key + if you do not wish to change the code.
- RESET ? will appear on the display
- confirm with the CURSOR key

at the end of the resetting, pressing the ESC key takes you back to the original menu.

The data resetting code (4 digits) can be different from the programming access code (5 digits).

**The default code is 0001**

**N.B.** If you want to change the default code proceed as follows:

- when the request if you want to change the code appears, press ENTER
- the old code will be displayed
- use the keys "+", "-" to compose the new code.
- confirm with ENTER at the end

Pressing the key "+" will take you through the menu up to the desired function; pressing the enter key gives access to the first data of the function selected; by pressing ENTER again gives you access to the other data, if present.

Pressing the ESC key takes you back to the original menu.

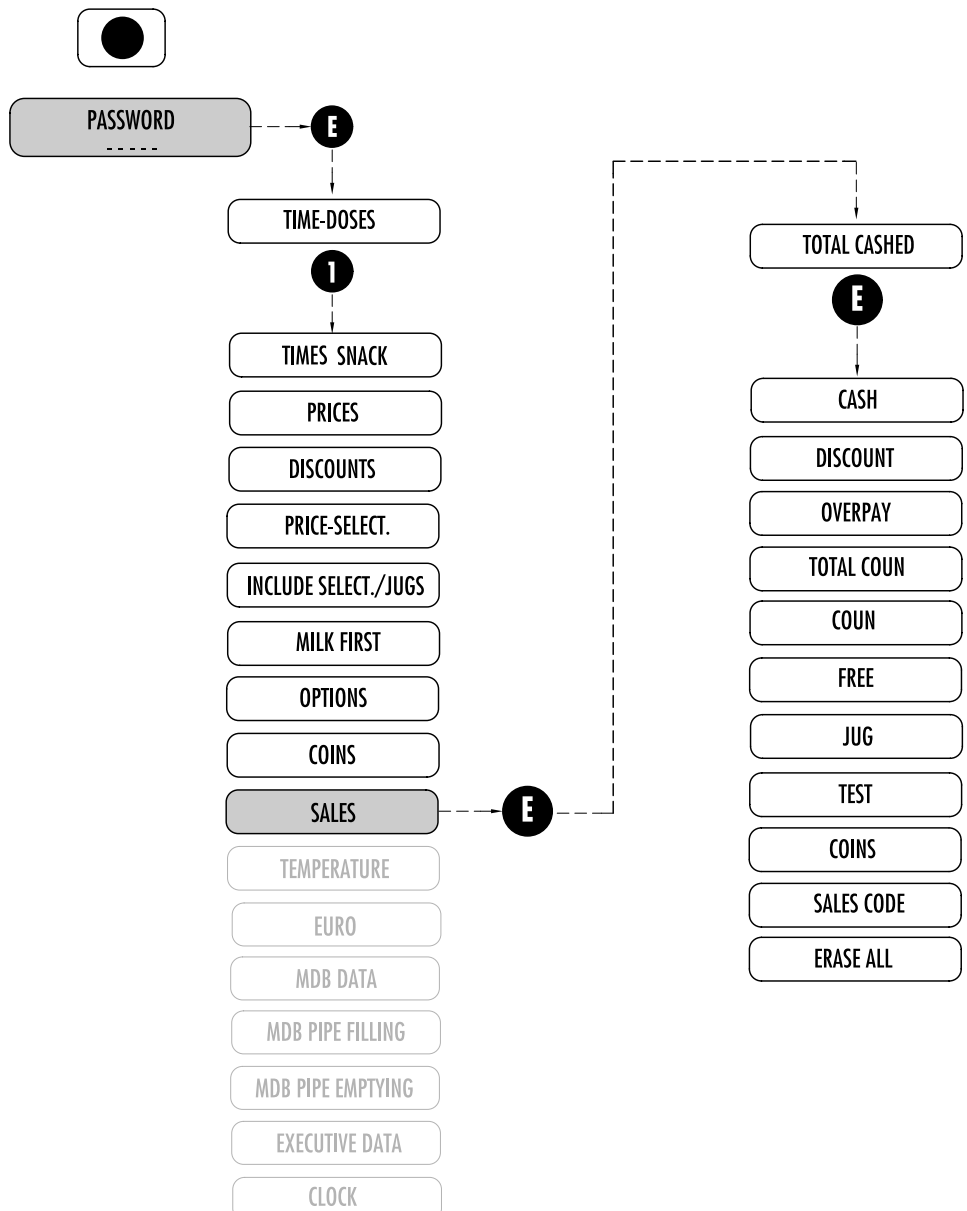


Fig. 7.13

### 7.2.11 TEMPERATURE (Fig.7.14)

This menu allows the regulation of the coffee heater and instant heater operating temperature.

<b>Heater temp</b>	Heater temp [70÷110 °C]
<b>Tank temp</b>	Vega temperature [6(Snack)/1(Pan)÷15 °C, >15 °C = Off]
<b>Temp. delta</b>	Vega temperature hysteresis [1.0÷5.0 °C]
<b>Safety delta</b>	Vega safety delta [5÷50 °C]
<b>Safety time</b>	Vega safety time [1÷9 hours]
<b>Defrost after</b>	Vega defrost frequency [1÷12 hours]
<b>Defrost for</b>	Vega defrost duration [1÷30 minutes]

- the "Safety Delta" and "Safety time" parameters are displayed only for Vega "Pan" type machine.
- The "defrost" parameter is only visualized for the Vega "Snack" machine type.

Pressing ENTER appears:

**"temp. water sol. C.077"**

repressing ENTER appears:

**"temp. water coff. C.096"**

with the keys "+", "-" and "cursor" increases or decreases the TEMPERATURE of the water in the boiler.

There is however a security on the maximum TEMPERATURE that can be setted that does not allow to go above 090 as setted value.

Pressing ENTER again to confirm the variation, will display the two coefficients of each of the temperature probes assembled on the group and on the instant boiler for example:

**"k1 00200"      "k2 00485"**  
**"k1 00220"      "k2 00525"**

**N.B.** It is possible that these two values be different from one machine to another.

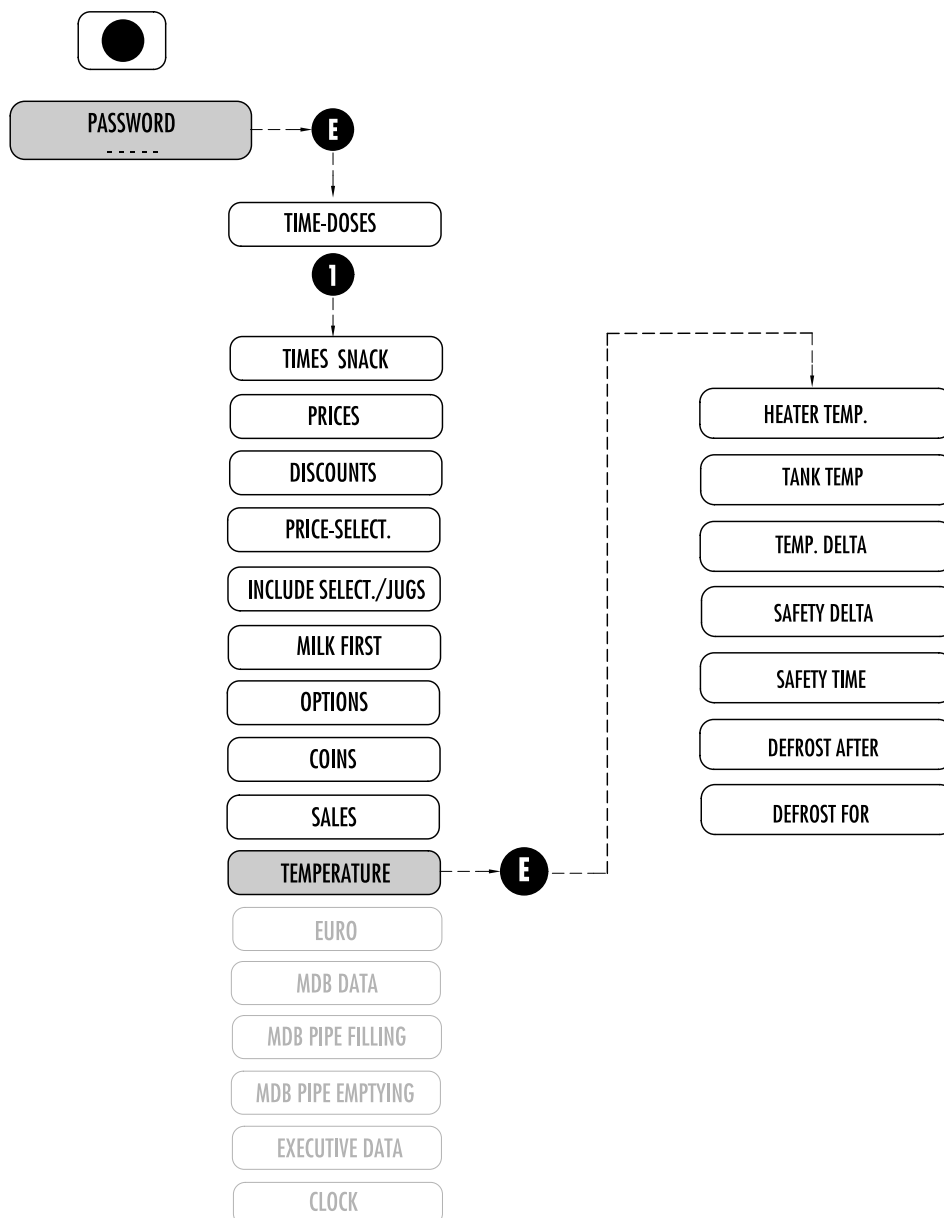


Fig. 7.14

### 7.2.12 EURO OPTIONS (Fig. 7.15)

<b>Visualization</b>	activates conversion visualization [On/Off]
<b>Conv.fact. point</b>	position of the point in the conversion factor [0÷6 decimals]
<b>Conv. Factor</b>	conversion factor [0÷999999]
<b>Curr/Euro conv</b>	selects whether to effect currency/euro or euro/currency conversion [On/Off]
<b>Visualiz. Point</b>	position of the decimal point in the euro/ currency conversion [00000, 0000.0, 000.00]

**Nota:** The "Visualiz. Point" parameter is only displayed if the currency/euro conversion is OFF.

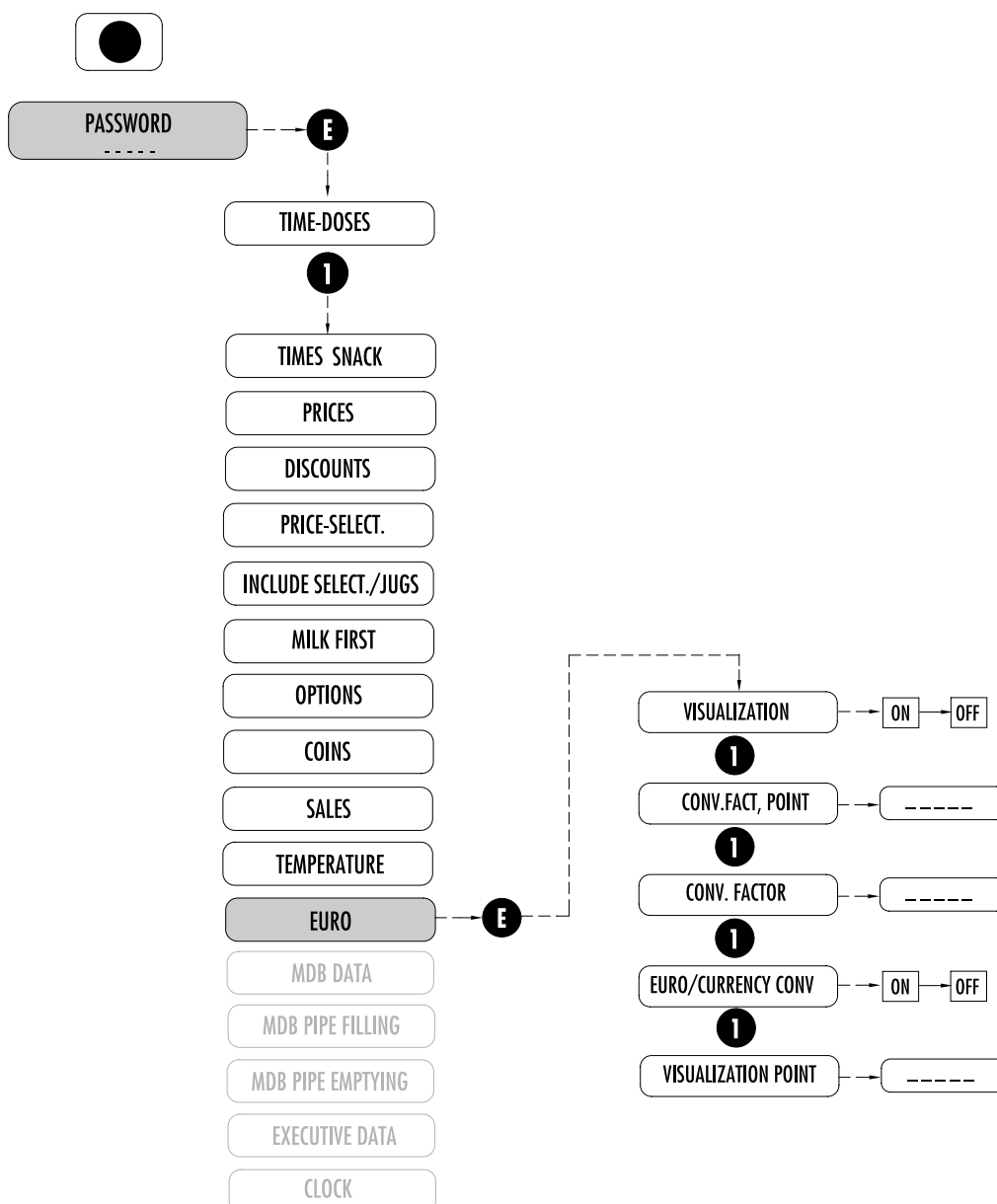


Fig. 7.15

7.2.13 MDB DATA (Fig. 7.16)

- Maximum change** Maximum change delivered from the coin box [0÷9999]
- Coin change** Engages the change lever [On/Off]
- Coin 1 engage** Activates coin 1 [On/Off]
- ...
- Coin 16 engage** Activates coin 16 [On/Off]

**Note:** the programming of the coin engagement function will only come into effect after switching the coin box off and then on again and/or the cards.

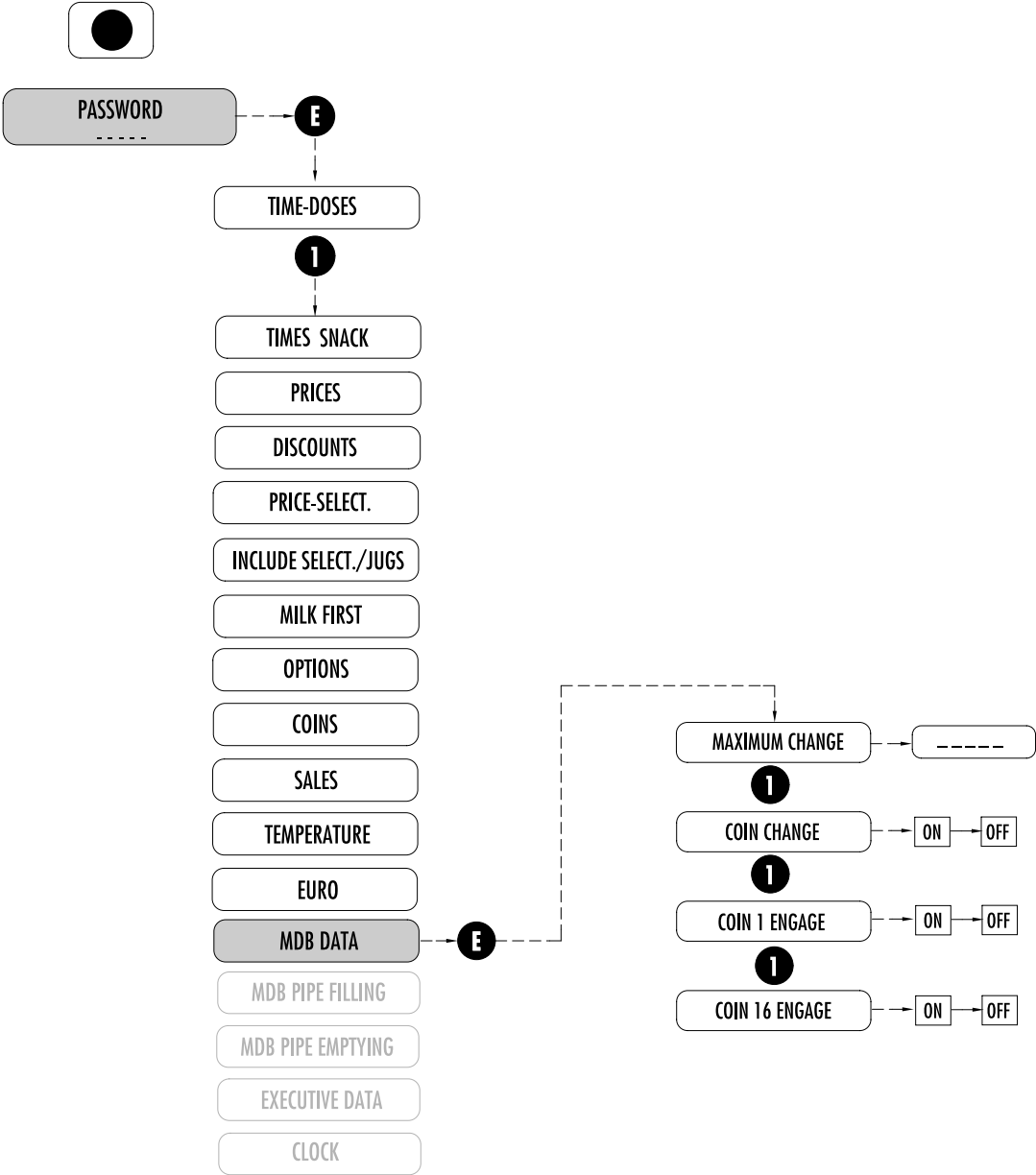
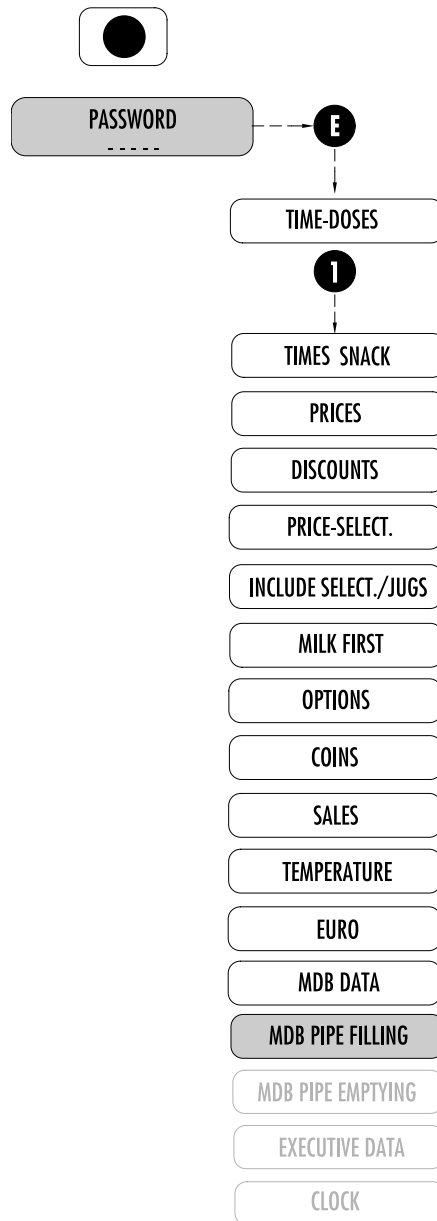


Fig. 7.16

### 7.2.14 MDB PIPE FILLING (Fig. 7.17)

#### MDB pipe filling (Esc to escape)

From this menu it is possible to enter coins into the coin box without any updating of the credit on the card.



**Fig. 7.17**

7.2.15 MDB PIPE EMPTYING (Fig. 7.18)

- Coin 1 (key 5 empty)
- ...
- Coin 16 (key 5 empty)

On pressing key 5 the selected coin will be delivered.

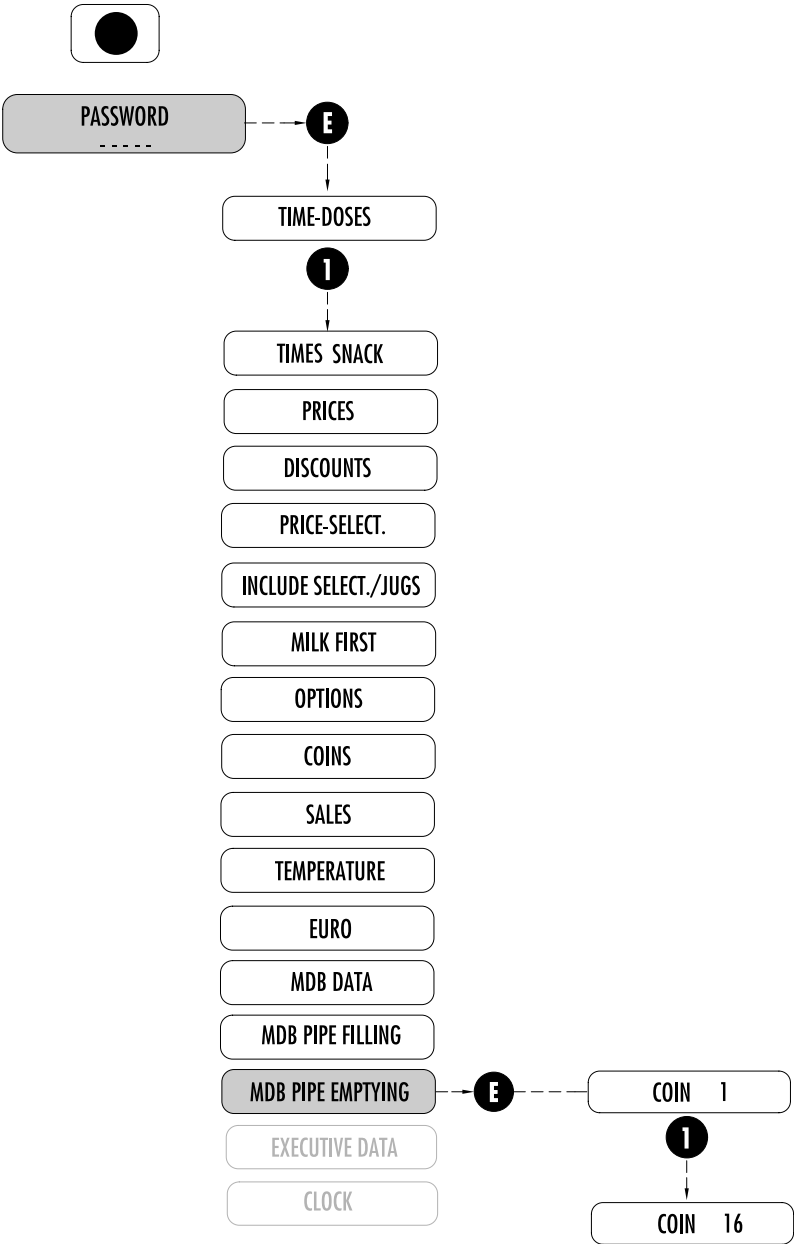
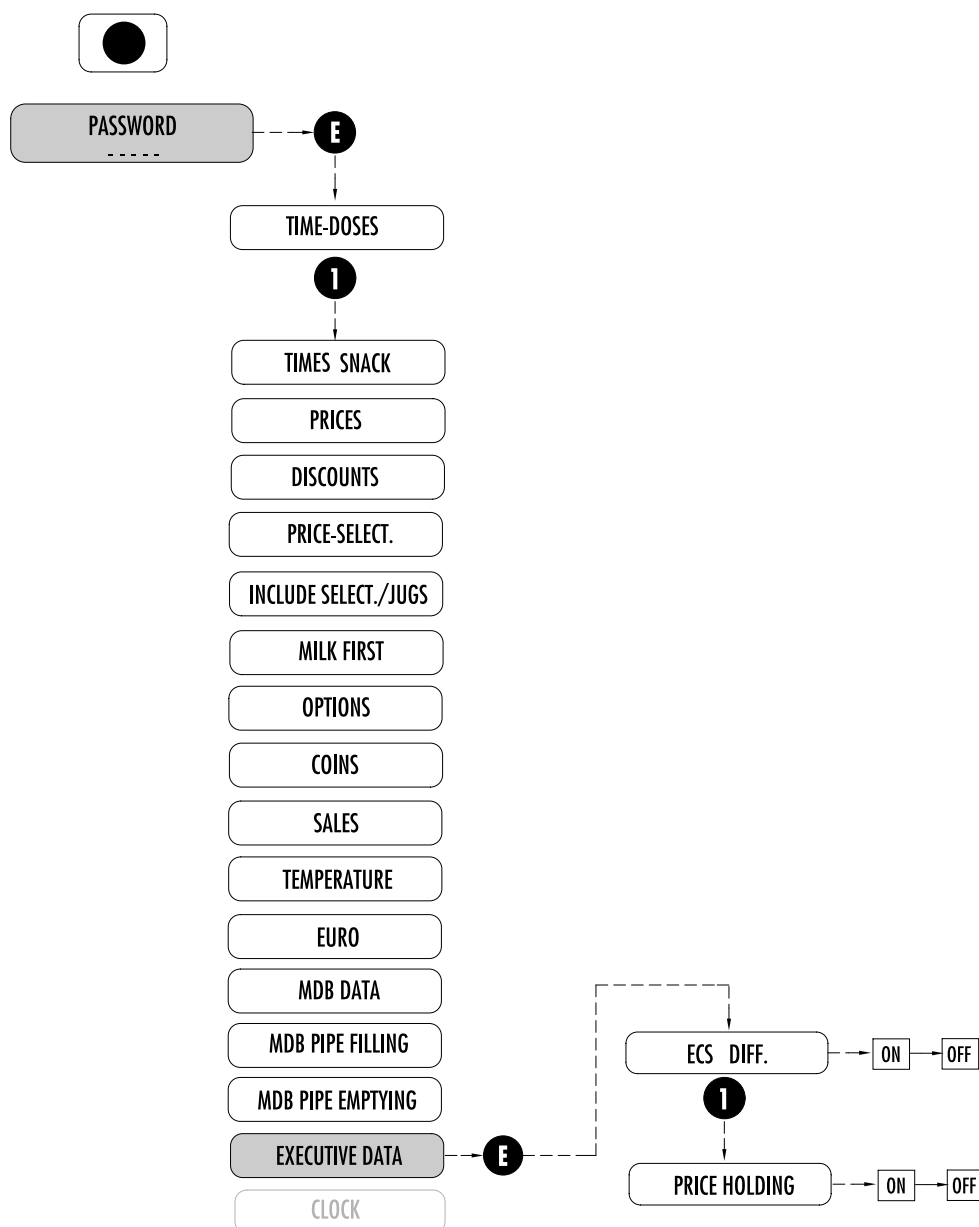


Fig. 7.18



### 7.2.16 EXECUTIVE DATA (Fig. 7.19)

- Diff. ESC** Engaged the differentiated ESC Option [On/Off]
- Price holding** Engages the price holding option [On/Off]
- Note:** if both the parameters are ON, differentiated ESC prevails.



**Fig. 7.19**

7.2.17 CLOCK (Fig.7.20)

The following menus are available:

- Hour/time set
- Switch on
- Washing
- Discount

Hour/minute set:

Hour/minute set sets the current hour and minutes [00:00..23:59]

Switch on:

- Start 1 sets the time for switch on 1 [00:00..23:59]
- End 1 sets the time for switch off 1 [00:00..23:59]
- Start 2 sets the time for switch on 2 [00:00..23:59]
- End 2 sets the time for switch off 2 [00:00..23:59]

Note: if "start" is great or equal to "end" the switch on band is not engaged.s

Washing

- Wash 1 sets the time for wash 1 [00:00..23:59]
- Wash 2 sets the time for wash 2 [00:00..23:59]

Discount

- Start 1 sets the start time for discounted prices 1 [00:00..23:59]
- End 1 sets the end time for discounted prices 1 [00:00..23:59]
- Start 2 sets the start time for discounted prices 2 [00:00..23:59]
- End 2 sets the end time for discounted prices 2 [00:00..23:59]

Note: if the "start" is greater or equal to "end" the discount band is not engaged.

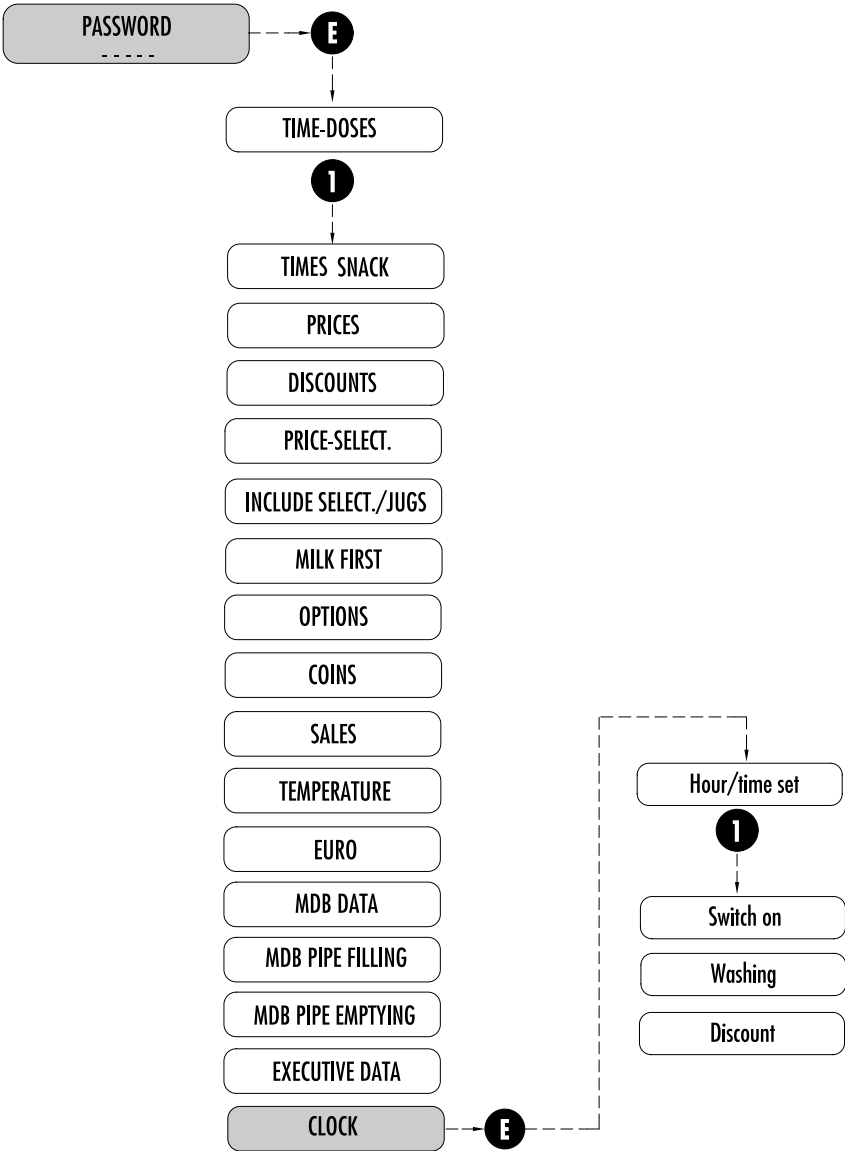


Fig. 7.20



## 8.0 MAINTENANCE



**IMPORTANT !** This operation is to be undertaken with the machine on, and therefore is only permitted to the technical staff authorized to carry out such operations.

Enter maintenance mode by pressing the external "service" key. The wording "maintenance" appears on the video display, in line 1 and the state of the Pegaso on line 2 (providing there are no alarm or other signals present, in which case they are displayed, see the alarm manual for further details):

- **Key A - "TEST WITHOUT SUGAR"**: after pressing the key it is possible to use the keypad as in normal service so as to dispense any selection without the dispensing of the cup, sugar and spoon.
- **Key B - "WATER TEST"**: after pressing the key it is possible to use the keypad as in normal service, so as to dispense any selection with water only.
- **Key C - "TEST"**: after pressing the key it is possible to use the keypad as in normal service so as to dispense any complete selection (counted as a test drink dispensing)

**NOTE:** so as to cancel a test pre-selection without dispensing drinks it is sufficient to press the service key inside the door again. In this case the distributor will remain in SERVICE mode.

- **Key D - "ALARM RESET"**: has the function to reset the failures registered by the distributor and start a subsequent diagnosis control so as to verify that other failures are not present.

Use button 1 (COFFEE UNIT ROTATION or ERROR SCROLL) to scroll and visualize the anomalies memorized by the distributor.

- **Key 1 - "COFFEE GROUP ROTATION OR ERROR SCROLL"** has the function to effect a turn of the coffee group (E version or a cleaning of the coffee mixer (I version); Also displays the error list (see ALARM RESET).
- **Key 2 (soluble version) or key 3 (espresso version) - "MIXER CLEANING MILK- CHOCOLATE"**: has the function of effecting a cleaning of the MILK- CHOCOLATE mixer.
- **Key 2 (espresso version) or key 3 (soluble version) - "TEA OR DECAF. MIXER WASHING"**. Undertakes a washing cycle of the tea or decaf. mixer.
- **Key 7 - "TOTAL ENTRIES DISPLAY"** (cancellable) for 5 s: permits the visualization of the number of entries made (general counter). To return to service mode. It is necessary to re-press the service key inside the door.
- **Key 6 (soluble version) or key 8 (espresso version) "NOZZLE MOVEMENT"**: allows to move the nozzles when you want to open the boiler support.
- **Key 16 (soluble version) or key 15 (espresso version) "CUP RELEASE"**: for cup collection without having made a selection

### Maintenance panel (espresso version)

TEST W/O SUGAR	A	C	TEST
ONLY WATER TEST	B	D	ALARM RESET
GROUP ROTATION OR ALARM SCROLL	1	TEA OR DECAF MIXER WASHING	2
MILK CHOCOLATE MIXER WASHING	3		4
	5		6
	21		22
	23		24
	25		26
SELECTION DISPLAY	7	NOZZLE MOVEMENT	8
	9		10
	11		12
	13		14
CUP DISPENSING	15		16

### Maintenance panel (soluble version)

TEST W/O SUGAR	A	C	TEST
ONLY WATER TEST	B	D	ALARM RESET
GROUP WASHING OR ALARM SCROLL	1	MILK CHOCOLATE MIXER WASHING	2
TEA OR DECAF MIXER WASHING	3		4
	5	NOZZLE MOVEMENT	6
	21		22
	23		24
	25		26
SELECTION DISPLAY	7		8
	9		10
	11		12
	13		14
	15	CUP DISPENSING	16

### Vega keyboard

- T1 Alarm scroll (if they are present)
- T4 Product testing
- T5 Alarm reset
- T8 or TA** Vega 600: displays total number of entries (which can be cancelled) for 5 s

## 9.0 MAINTENANCE AND INACTIVITY



### 9.1 Cleaning and Loading



So as to guarantee the correct functioning of the distributor during time it is necessary to effect some operations periodically, some of which are indispensable for the observance of the health standard norms. These operations must be done with the distributor open and switched off. The cleaning operations must be effected before the loading of the products. In order to guarantee normal operation, the machine must be installed in areas that the environmental temperature is between a minimum of -1°C and a maximum of +32°C and humidity of not over 70%. Must not be installed in places where cleaning is done with water hoses(ex. big kitchens.). Do not use water jets to clean the machine.

#### 9.1.1 Procedure for distributor cleaning

##### Recommended equipment:

For those responsible for filling up and maintenance of the machine the recommended equipment is as follows:

- Tool carrier case
- Clean uniform
- Disposable gloves
- Clamp for closing the
- Roll of kitchen paper
- Wood or plastic stick
- Bottle of detergent
- Bottle of disinfectant
- "Distributor out of action" sign
- Small table for resting items (optional)

##### Never use:

- Sponges, scourers, cloths
- Brushes
- Screwdrivers or metallic objects.

##### To ensure hygiene:

- Use disinfectants

##### For cleaning:

- Use detergents and/or deterative products

The purpose of the disinfectants is to destroy any surface bacteria which may be present. The detergents act to eliminate the dirt. Products exist on the market which are both detergents/disinfectants and are usually sold at the chemist's. On application of the HACCP certain hygienic regulations are laid down for company self-checking procedures concerning :

- Cleaning of the premises
- Product transportation
- Machinery maintenance
- Waste disposal
- Drinking water procurement
- Personnel hygiene
- Food product characteristics
- Personnel training
- (Directive 93/43 CEE)

##### The cleaning operations may be undertaken:

- 1 at the site of installation of the automatic distributor
- 2 at the premises of the company that provides the service

##### Example of a recommended cleaning procedure of a hot drink automatic distributor:

The person responsible for machine hygiene, before opening the distributor must check the cleanliness of the surrounding environment and put up a sign to tell any potential consumers that:

- the machine is "out of use as maintenance is in progress"
- it is important that the person responsible for cleaning never has to interrupt his work in order to operate the machine.

#### 9.1.2 Periodic cleaning by the maintenance technician

**First step:** disposal of the waste inside the waste bins (used cups, stirrers, paper, tissues etc). Once the waste has been disposed of it is possible to clean the surrounding area.

- elimination of the coarse dirt
- disinfecting of the flooring and walls of the area surrounding the machine up to a radius of 1 metre around the distributor
- once this is complete proceed with opening the distributor.

#### 9.1.3 Daily cleaning recommended

The objective is that to avoid the creation of bacteria in the food zone areas.



For all cleaning operations follow the instructions indicated in paragraph 9.1.1.

Operate as follows:

- clean all the visible parts in the dispensing area. (Fig. 9.1 e Fig. 9.2)

remove and clean carefully:

- funnels and powder chutes (Fig. 9.3-pos.1)
- water funnel (2), mixing bowls (3) whipper assembly (4)

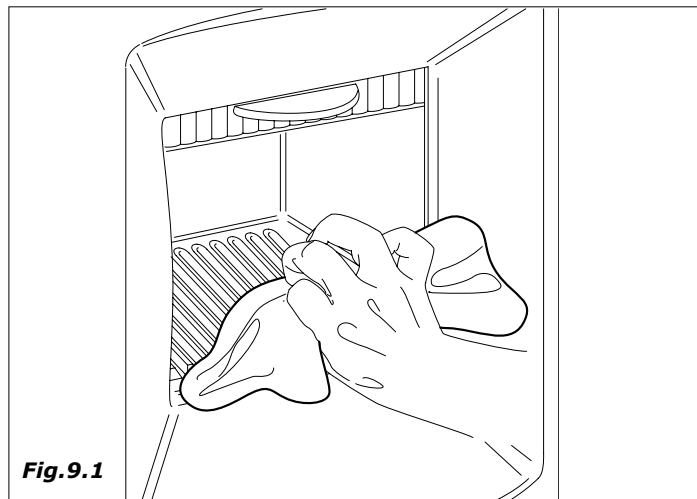


Fig. 9.1

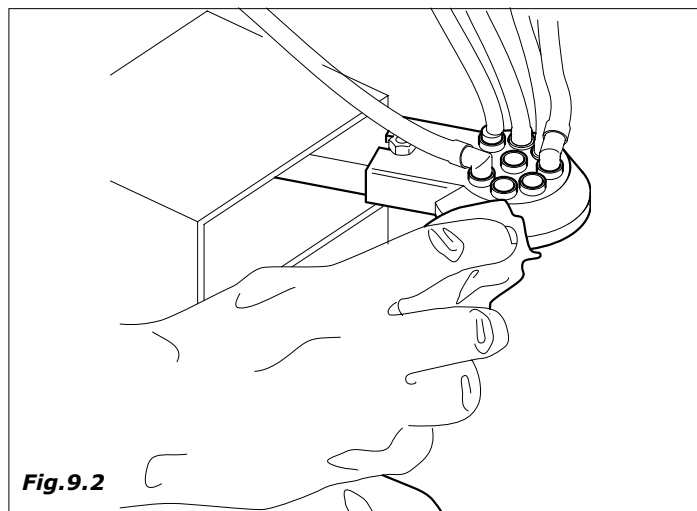


Fig. 9.2

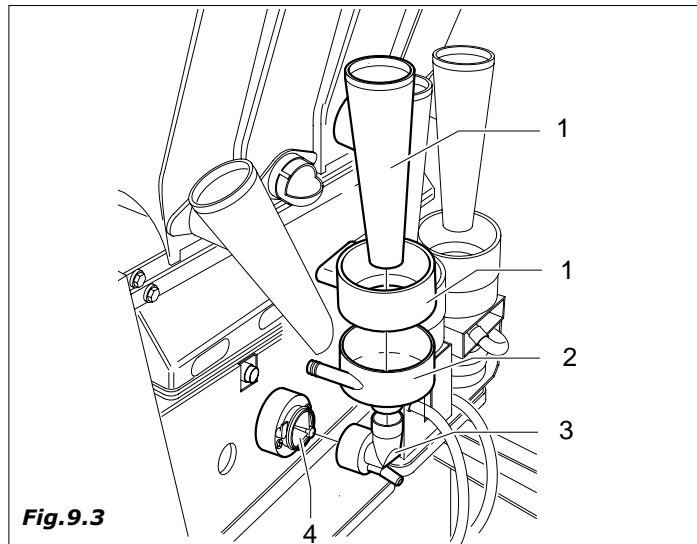


Fig. 9.3

- silicone water dispensing tubes.
- dispensing chamber (Fig. 9.4)
- coffee funnel and chute (Fig. 9.5)

Before effecting the re-assembly operations clean all the elements carefully.

- remove all coffee powder residue; the unit can be removed from its housing to make the task easier (Fig. 9.6)

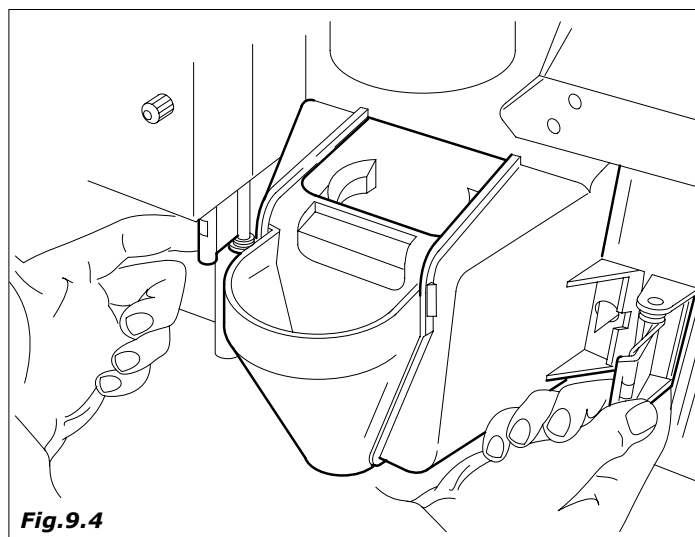
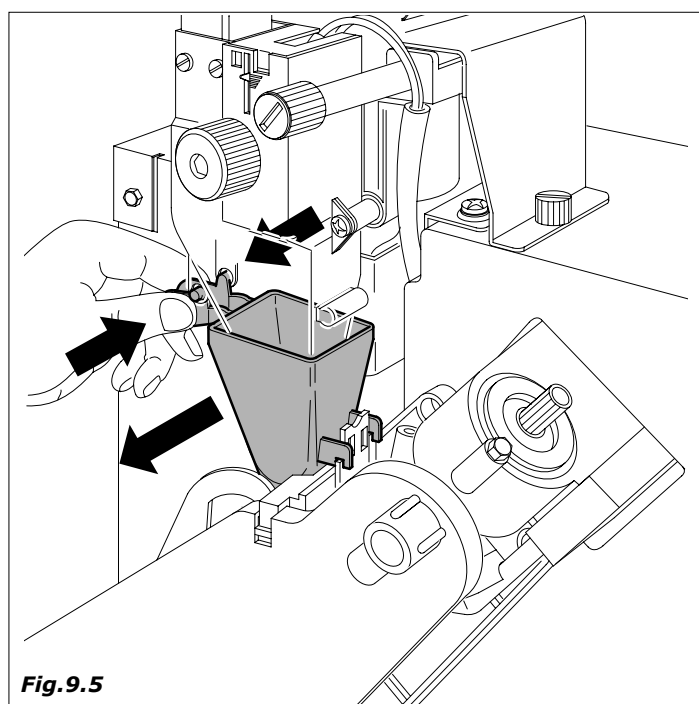


Fig.9.4

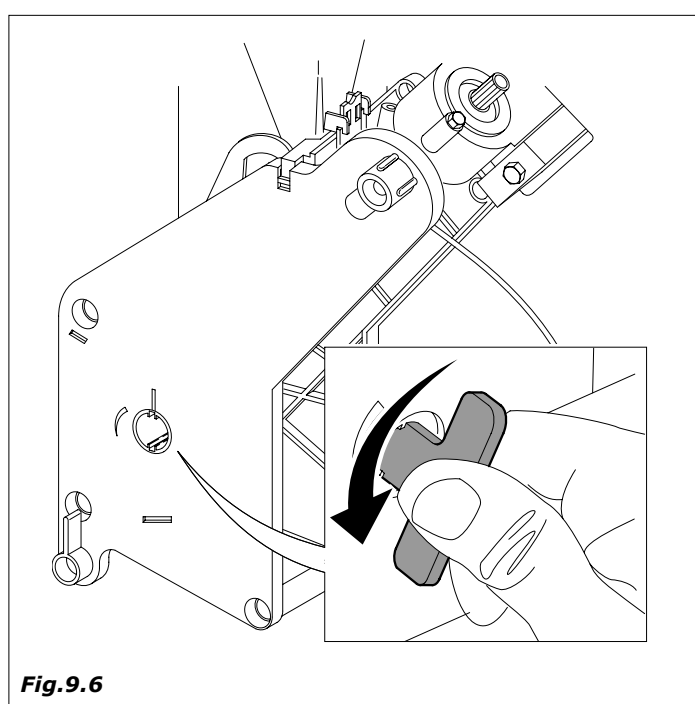


Fig.9.6

- empty the waste liquids bin clean it and/or substitute it (Fig. 9.7).
- substitute the coffee spent grounds bag . (coffee in beans versions) (Fig. 9.8)

**Last step:** coin collection.

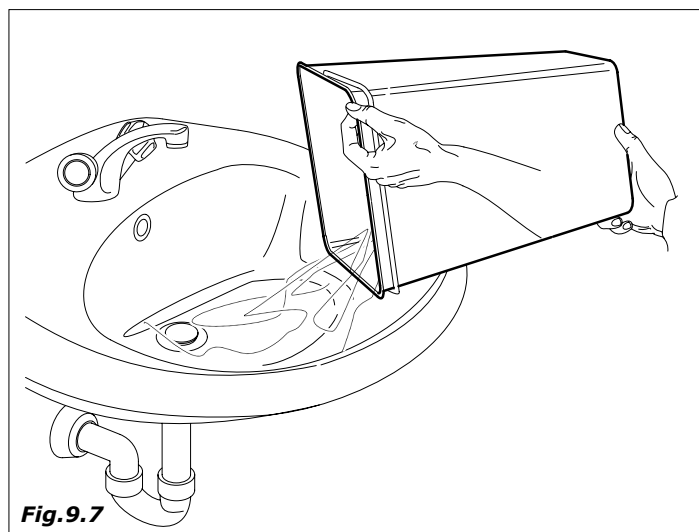


Fig.9.7

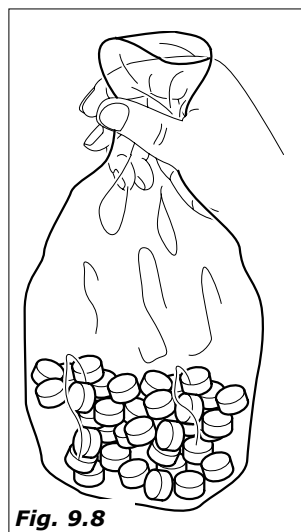


Fig. 9.8

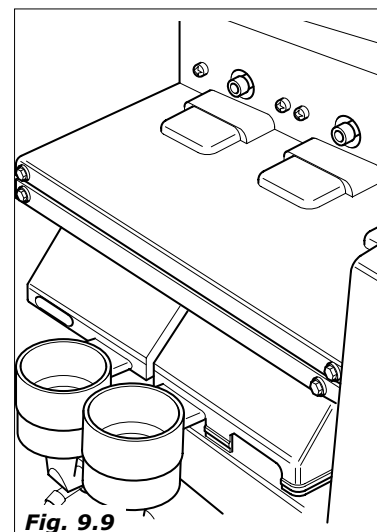











Fig. 9.9

#### 9.1.4 Weekly cleaning

Remove all the containers and clean with a wet cloth all the container support parts, as well as the bottom of the distributor and the outside of the distributor, in particular the dispensing area. (Fig. 9.9).

### 9.1.5 Product loading

When necessary provide for the loading of the products and/or consumption materials of the automatic vending machine. For these operations please refer to the operations described under chapter 6.6 (first installation).

 	<b>9.2 MAINTENANCE RECOMMENDED</b>	<b>EVERY DAY</b>	<b>EACH WEEK</b>	<b>EACH MONTH</b>	<b>EVERY SIX MONTHS</b>	<b>EVERY 10.000</b>
	Remove and clean all the visible parts in the dispensing zone.					
	Empty the waste liquid bins, clean them and/or substitute them.					
	Substitute the spent coffee grounds bag.					
	Remove all the containers and clean with a wet cloth all the support parts of the containers, as well as the bottom of the distributor and the outside of the distributor, in particular the dispensing area.					
	Effect the debacterisation of the all the food zone parts.					
	Remove and rinse the coffee group lubricate all the mobile parts using silicone grease for alimentary use.					
	Substitute the filter gaskets.					

### 9.2.1 Ordinary and Extraordinary Maintenance

The operations described in this section are purely indicative as they are tied to variable factors such as the water hardness, humidity, products used and workload, etc.



*For all operations that require the disassembly of the distributors' components, make sure that the latter is switched off.*

Entrust the operations mentioned here below to qualified personnel. If the operations require that the distributor be switched on, entrust them to specially trained personnel.

For more complicated interventions, such as removing the lime build-up in the boilers a good knowledge of the equipment is necessary.

Monthly effect the debacterisation of all the parts in contact with food substances using chlorine based solutions following the operations already described under *chapter 6.5.3*.

### 9.2.3 Nuova Bianchi Coffee group maintenance

Monthly extraction of the unit and thorough rinsing in hot water is recommended.

The necessary requirement for this operation is that the coffee unit is in idle position.

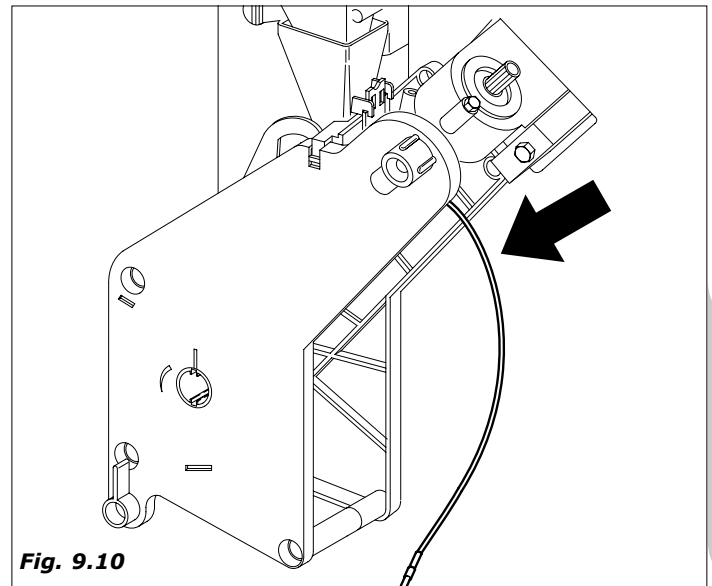
Then detach the pipe indicated in *Fig. 9.10*, unscrew knob **A**, rotate lever **B** (*Fig. 9.11*) and then remove the entire coffee unit.

Every 5000 vends and anyhow monthly, it is advisable to lubricate all the mobile parts of the group, using silicone grease for alimentary use *Fig. 9.12*):

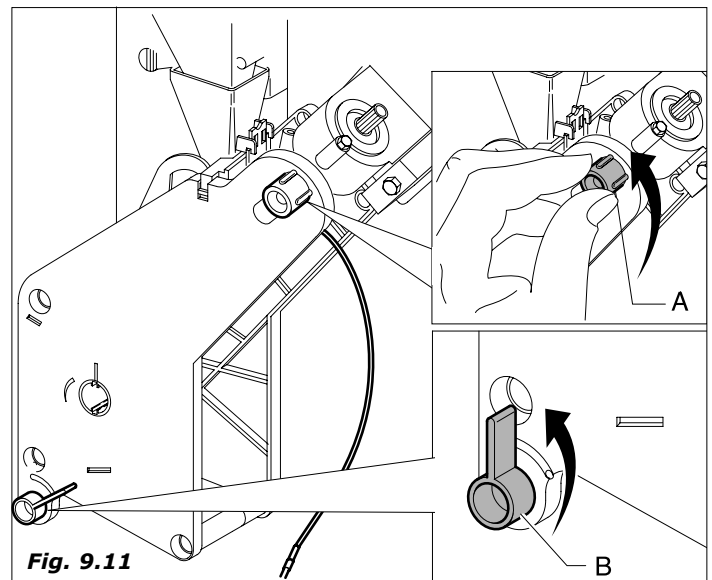
- lower filter piston (1)
- connecting bar (2)
- piston guide (3)

Every 10000 vends we advise to substitute the gaskets and the filters.

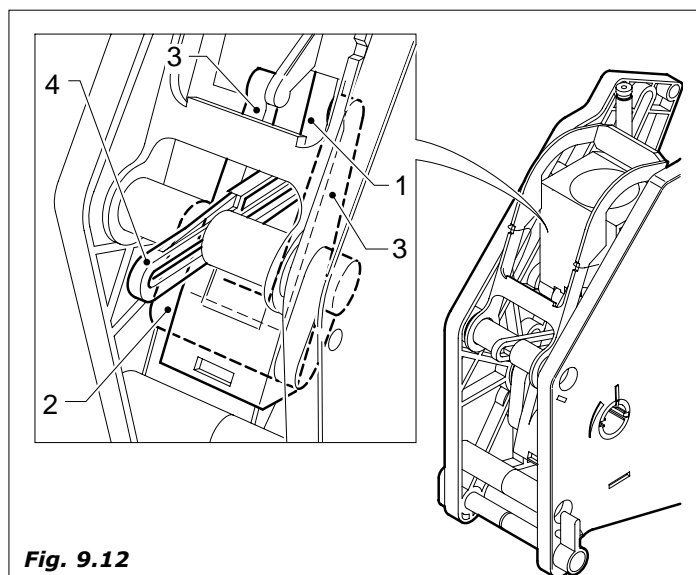
- gaskets
- Loosen the screw (*Fig. 9.13*), wash the filter and replace if necessary.
- re-assemble everything in the inverse order.



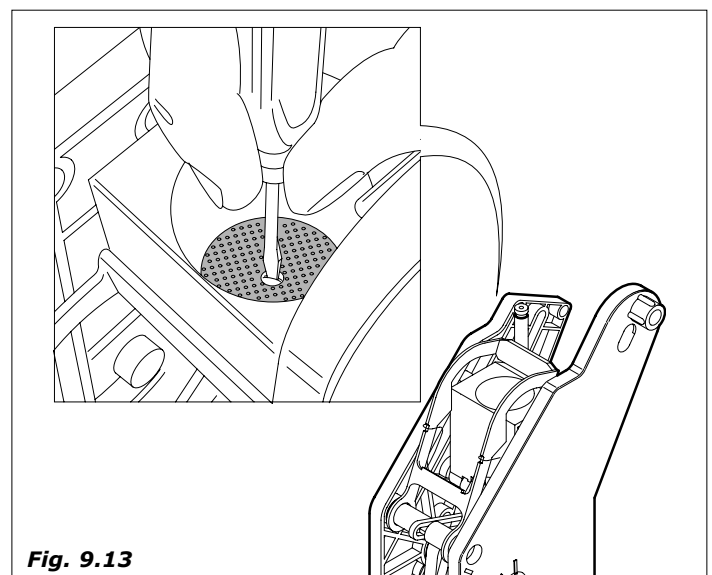
**Fig. 9.10**



**Fig. 9.11**



**Fig. 9.12**



**Fig. 9.13**

## NUOVA BIANCHI COFFEE MACHINE TIMING CHECK PROCEDURE

Ensure that during the idle state, the rotating index is aligned with the stage index (see fig.9.14)

Ensure that during the delivery stage that the rotating index is not more than 1.5 mm in advance of the delivery reference point (the rotating index must be at a delivery position of between 0 and 1.5 mm from the delivery point).



### 9.3 Regulations

#### 9.3.1 Dosage and grinding regulations

The distributor is supplied regulated with standard values and i.e.:

- TEMPERATURE of the coffee in the cup of about 78°C for 38 cc of dispensed product
- TEMPERATURE of the instant products in the of about 73°C
- grams of coffee powder, about 7,0 grams
- grams of instant powder products according to what is indicated on the specific tables.

In order to obtain the best results with the product used we advise to check:

- *Ground coffee gram weighting:* vary the quantity using the knob positioned on the measuring device (Fig.9.15). Each notch of the regulation knob corresponds to a value of 0.05 grams.

By turning in a clockwise sense the amount decreases.

By turning in an anti-clockwise sense the amount increases.

The variation in the product can be controlled by means of the reference notches on the body of the measuring unit (see figure 9.15)

Coffee pellets must be have a compact consistency and be slightly damp.

- *Regulation of the degree of grinding.* Turn the screw (fig.9.16) to obtain the desired results.

Turn clockwise for fine grinding, turn anti-clockwise for coarser grinding.

After regulation, three product regulations must be carried out in order to assess the efficiency of the regulation, the finer the granules the greater the time required for product delivery.

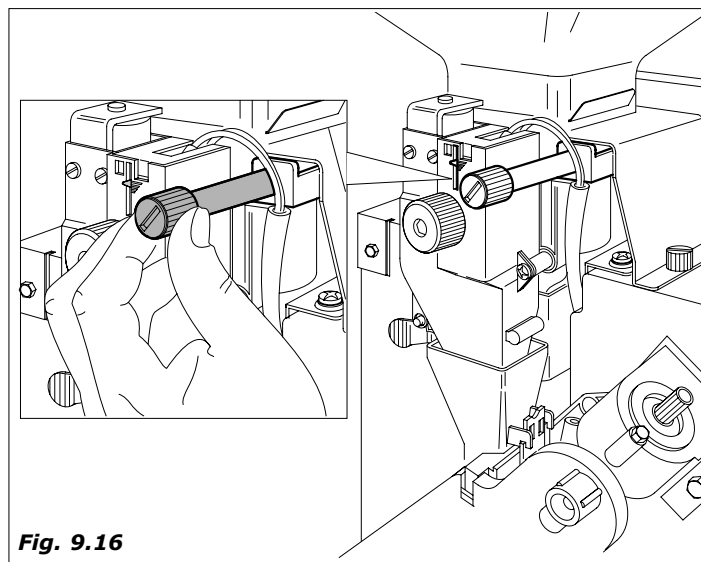


Fig. 9.16

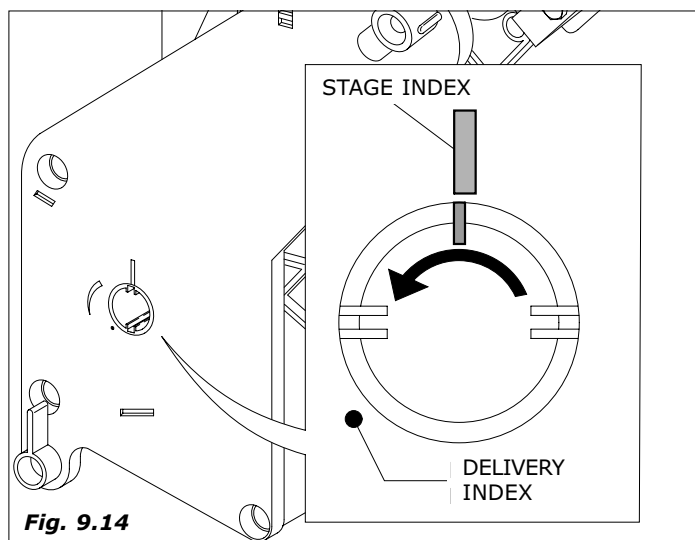


Fig. 9.14

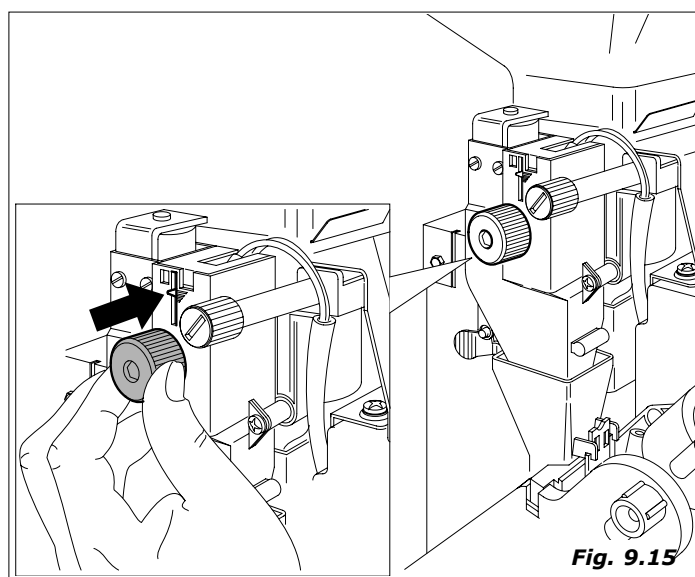


Fig. 9.15

#### 9.3.2 Regulation of the instant solenoid water delivery valves

In the case of soluble products you can regulate the quantity of water and the powder dosage electronically by varying the standard parameter, according to the procedure indicated in chapter 7.0 PROGRAMMING.

Due to problems caused by the formation of lime scale the instant solenoid valves can have a reduced water delivery.

- So as to obtain a thorough rinsing of the bowls eventually turn the solenoid valves water delivery screw. (Fig. 9.17).

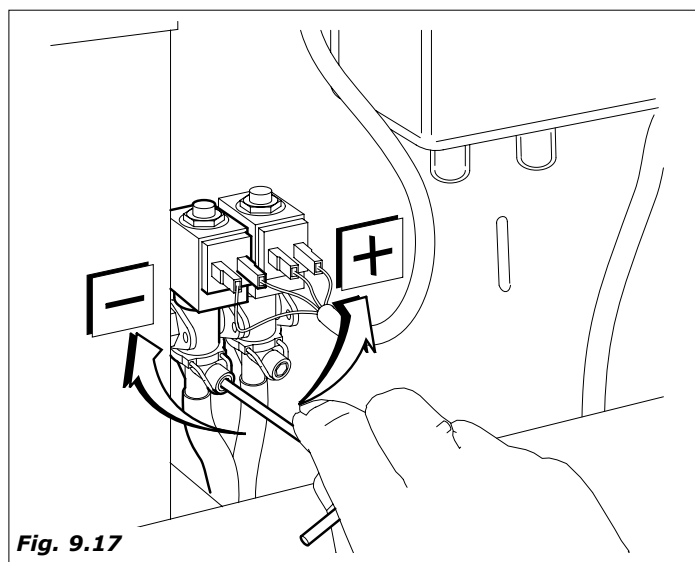


Fig. 9.17





#### 9.4 Resin regeneration of the water softner

The regeneration of the resins must be executed according to the water of mains supply to which the distributor is connected. As reference the table indicated here below can be used:

Water hardness ° french	Number of selections	
	60cc	130cc
10	25000	12500
20	12500	6000
30	9500	4500
40	6500	3000
50	5000	2500

So as to verify the degree of hardness of the water and consequently the time and type of interventions, specific kits available on the market can be used.

The operation can be effected on the distributor as follows:

- switch off the machine.
- turn the lower faucet being careful to put the relative hose in a bucket or better in a drain (Fig. 9.18).
- remove the cover and introduce 1,5 kg of normal cooking salt. (Fig. 9.19)
- replace the cover.
- switch on the machine and let the water pour out until it is no longer salty.(Fig. 9.20).
- switch off the machine and close the faucet.

The time necessary for this operation is about 30/45 minutes.



#### 9.5 Neon light replacement (optional).



*Before undertaking any operations on the machine ensure that the distributor power supply is disconnected.*

- Extract the cup-holder column (Fig. 9.21).
- A rectangular casing element is fixed to the door by means of self-threading screws. Unscrew them (Fig. 9.22 and Fig. 9.23).

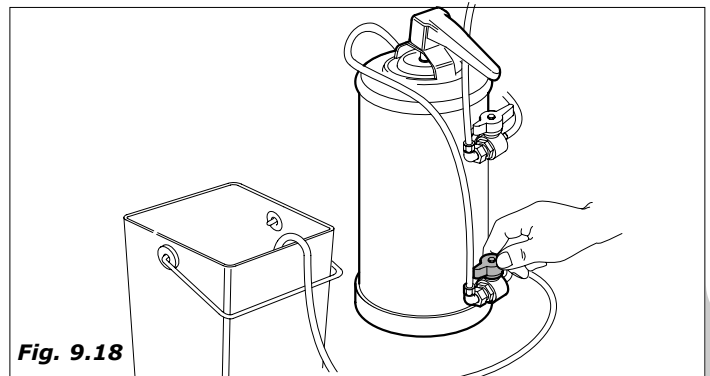


Fig. 9.18

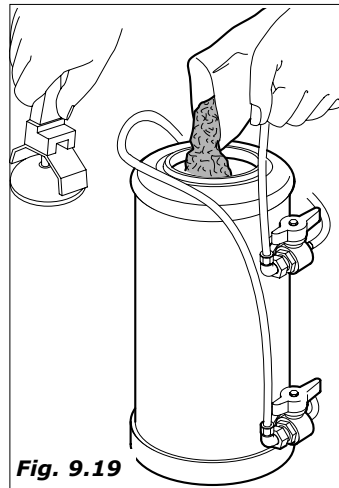


Fig. 9.19

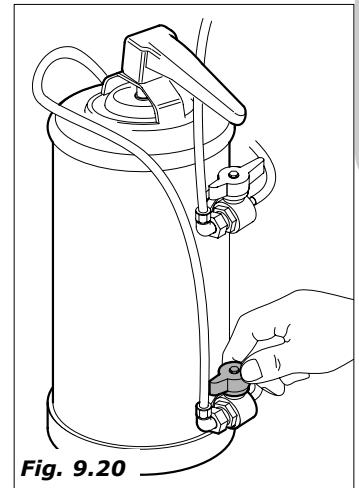


Fig. 9.20

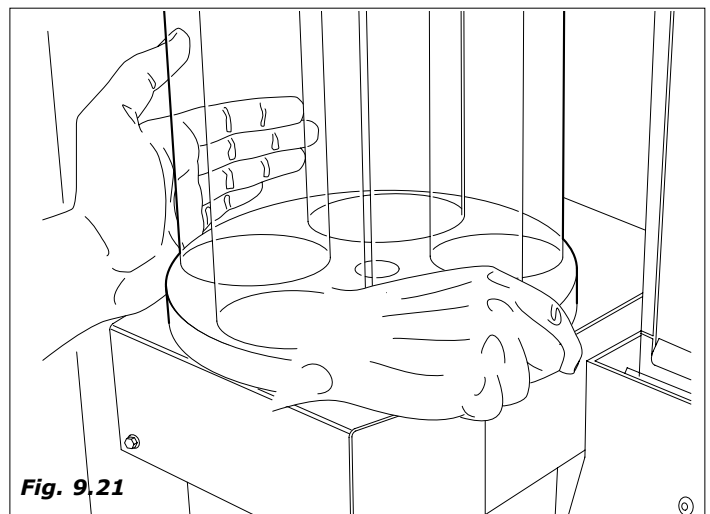


Fig. 9.21

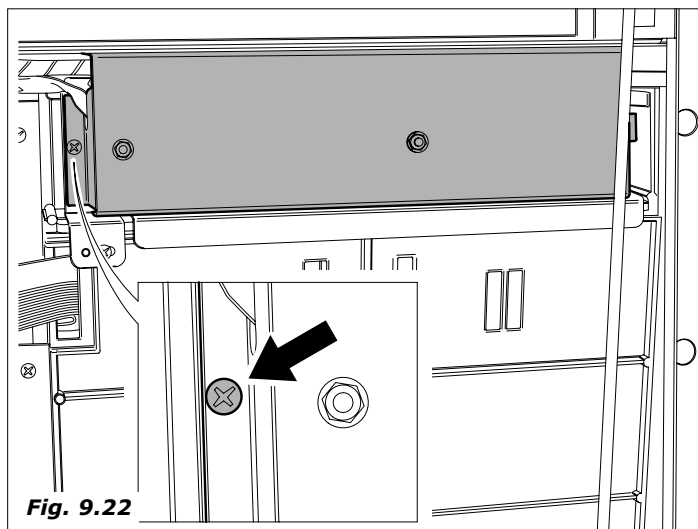


Fig. 9.22

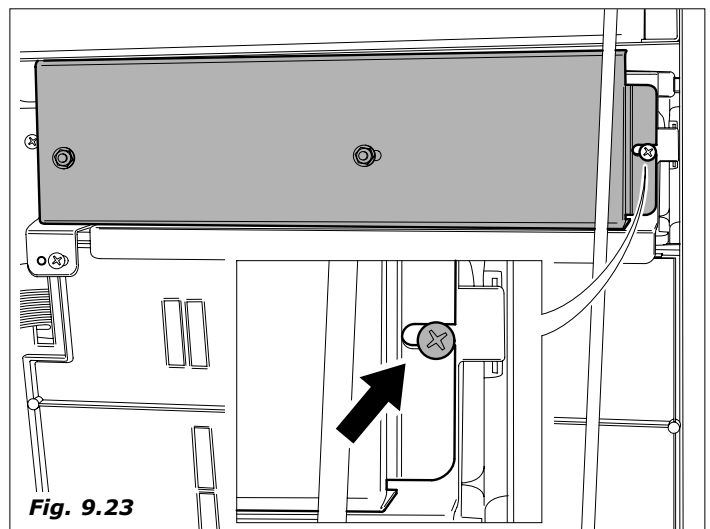
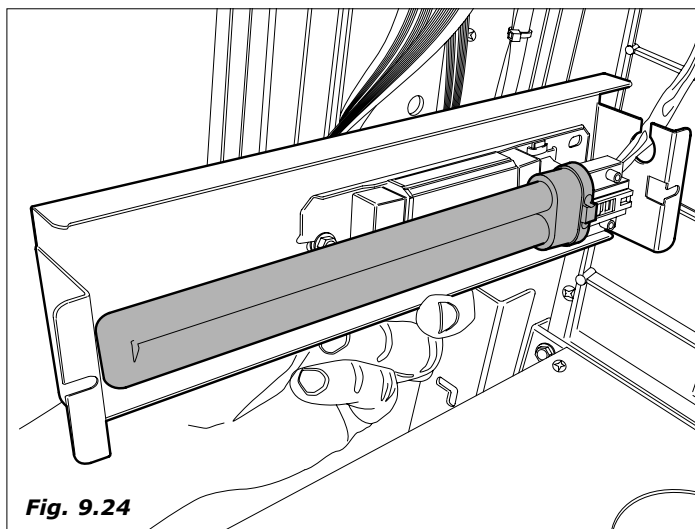


Fig. 9.23

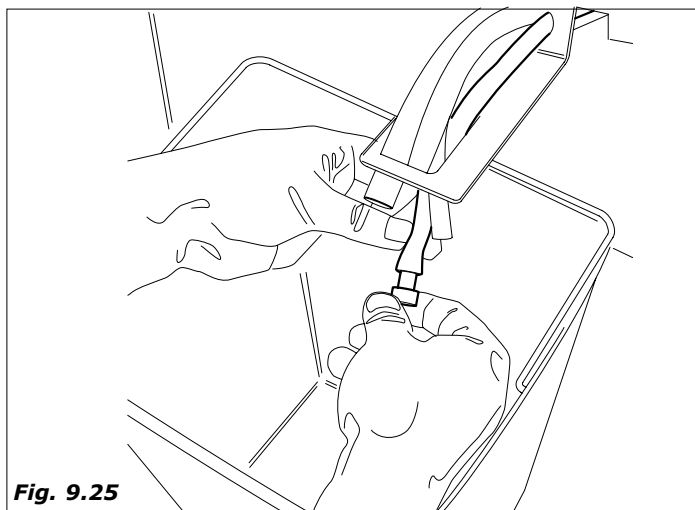
- Remove the light carrier casing, extracting it towards the left and rotating it on itself (*Fig.9.24*) then extract the light and attachment to be replaced.
- Replace the casing fixing it the door again using the relative screws and check function.
- Proceed to assemble the parts in reverse order.

**Fig. 9.24**

## 9.6 Inactivity

If the automatic vending machine remains inactive for a long time it is necessary to perform some prevention operations:

- disconnect the machine electrically and hydraulically.
- empty completely the instant boiler and the floater reservoir removing the plug located on the hose along the drain chute.
- Put the plug back in once the draining has been done. (*Fig. 9.25*).
- unload all the product from the containers
- perform a thorough cleaning of all the parts in contact with food substances according to what has already been described.
- empty the liquid waste bin carefully
- eliminate the spent grounds bag
- clean with a cloth all the internal and external surfaces of the machine.
- protect the outside of the machine with a plastic film wrapping or bag (*fig. 9.26*)
- stock in a dry and protected place where the temperature is not less than 1° C.

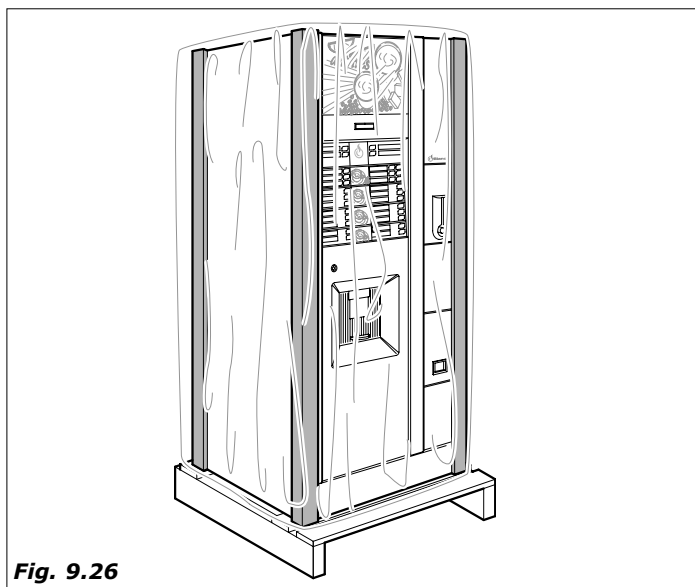
**Fig. 9.25**

## 10.0 DISMANTLEMENT

Proceed with the emptying of the products and of the water as described in the previous paragraph.

















For the dismantlement we advise to disassemble the machine dividing the parts according to their composition (plastic, metal etc.).



















Subsequently entrust to specialised companies the parts divided in this manner.











**Fig. 9.26**

## 11.0 TROUBLESHOOTING GUIDE FOR THE FAILURES OR MOST COMMON ERRORS

In the function SERVICE, the failures, when present are immediately displayed in the follow manner:

Display message	Probable cause	Remedy
<b>MASTER CARD ALARMS</b>		
Alarm Eprom error	<i>Is engaged in the event of an eeprom error. On engaging the reset message the missing default data will also be recharged on the eeprom (only if this alarm is present).</i>	 Undertake alarm reset.
Alarm - Coinbox error	<i>This alarm is only engaged if the Executive or Mdb coin box is engaged. It comes into action in the event of a connection error between the card and the coin box or if the coin box itself is not sensed. Executive: a delay of only 60 seconds is envisaged from the time of coin box sensing failure to alarm engagement. MDB: the delay is of approx. 10 seconds on switching on and then of 2 seconds.</i>	 These alarms are self-resetting.
CONFIGURATION ALARM	<i>Occurs if no slave card is revealed on switching on or if the revision of at least one of the connected slaves is non compatible</i>	 Check the electrical connections between the master and power cards. Recharge FW on the power card
OUT-OF-ORDER ALARM	<i>This occurs if all the slaves connected to the master card are in alarm mode. No delivery is therefore possible</i>	 Check the alarms during maintenance.
Alarm - Scale factor	<i>This alarm is only active if the executive coin box is activated (not in price holding mode) or MDB. It occurs if the division between one of the programmed prices and the base coinage received from the coin box exceeds a value of 250. This alarm is self-resetting</i>	 Check the correct base currency value in the programming parameters of the coin box.
<b>POWER CARD ALARMS</b>		
<i>Memorized alarms</i>		
<b>E09</b> EEPROM	<i>Is engaged in the event of an eeprom error. By undertaking the reset operation the eeprom factory details will also be recharged (only if the alarm is present).</i>	 Undertake alarm reset operations
<b>E17</b> ARM MOTOR	<i>Occurs in the event of a 10 second timeout during the cup conveyor movement</i>	 Check and replace if necessary
		 Check the motor position micro-switch
<b>E21</b> - DRINK N.A	<i>Is engaged in the event of an E05 signal and any of the following signals E02, E03, E04, E06 e E25.</i>	 Check indications
<i>Non-memorized alarms</i>		
<b>E00</b> OUT OF ORDER	<i>Engages in the event of an interruption in communication between the card and master</i>	 Check the alarms during maintenance
<b>E01</b> CUP	<i>Engages in one of these cases: 1. Expiry of the 30-second timeout for cup column rotation 2. Expiry of the 10 second timeout for cup release</i>	 Undertake the filling of the relative column
		 Check the micro-switch and replace if necessary
<b>E08</b> WATER EMPTY	<i>Is engaged 2 seconds after the sensing of the water empty micro. It switches off the resistance and re-starts the timeout for E12 and E13.</i>	 Check the water capacity of the mains supply. Water inlet solenoid valve Efficient function of the tank micro.
		 Empty the liquid dregs bucket
		 Check the tank micro and replace if necessary
<b>E12</b> TCOFFEE<60C°	<i>Occurs if on reset the set temperature of under °15 is not obtained in under 15 seconds, or if during normal function the temperature remains under 60°C for 15 minutes.</i>	 Check the programming parameters. Check the clixon

Display message	Probable cause	Remedy
<b>E13</b> TEMP<60C°	Occurs if on reset the set temperature of under°15 is not obtained in under 15 seconds, or if during normal function the temperature remains under 60°C for 15 minutes.	 Check the programming parameters. Check the clixon
<i>Memorized signals</i>		
<b>E02</b> GRINDER	Is engaged if the programmed grinder time out is engaged. The display shows the signal "lacks coffee". The sum is credited only in the case of instant grinding.	 Undertake to fill the container
		 Check that there is no impediment between the grinders. Check the electric motor connections.
<b>E03</b> COFFEE UNIT	Is engaged if the programmed coffee unit timeout is engaged. The display shows the message "no coffee". The sum is recredited	 Check for any possible faults and motor electrical power supply
		 Check the micro-switch and replace if necessary.
<b>E04</b> ESPRESSO PUMP	Is engaged during the coffee water deliver function unless at least 10 cc is delivered in the programmed pump timeout. The display shows the message "no coffee". The sum is re-credited	 Check the pump and replace if necessary.
		 Check the coffee solenoid and replace if necessary.
		 Check the volumetric counter and replace if necessary
<b>E05</b> SOL. PUMP	Is engaged during the delivery of water for solubles or hot water unless at least half the quantity is delivered in the programmed pump timeout. The display shows the message "espresso only" The sum is re-credited if hot water is not being delivery.	 Check the pump and replace if necessary
		 Check the soluble product solenoid valve and replace if necessary
		 Check the volumetric counter and replace if necessary
<b>E06</b> COFFEE MEASURER	Is engaged in the event that during the coffee release stage the measure dose remains pressed. The display shows the message "no coffee". The sum is re-credited	 Check the measure micro-switch and replace if necessary
		 Check for any obstructions and remove if necessary
<b>E10</b> STIRRERS	Engaged in the event of the an expiry of the 10" stirrer timeout. When this signal is active no further stirrers will be delivered.	 Check the stirrer micro and replace if necessary.
		 Check the correct function of the stirrer motor and relative cams
<b>E11</b> NTC PROBE	Engaged if the temperature probe short circuits or the circuit is open. The resistance is switched off if the NTC short circuits or is open. On ignition a delay of 30 seconds is envisaged before alarm condition is ascertained.	 Check the NTC probe resistance and replace if necessary
		 Check the electrical connections.
<b>E16</b> CAPACITY	For delivery of soluble products or hot water: occurs in the event that water delivery of only between 50-70% of the programmed measure occurs. The display visualizes the character°° as the last character. This signal prevails over those of the de-counters (the three subsequent ones).	 See note (1)

Display message	Probable cause	Remedy
<b>E22 - PURIFIER</b>	<i>Is engaged when the value of the purifier decouner is equivalent to zero.</i>	 Regenerate the purifier. Reset the programmed purifier decouner.
<b>E23 - GRINDERS</b>	<i>Is engaged when the value of the grinder decouner is equivalent to zero.</i>	 Replace the grinders. Reset the programmed grinder decouners.
<b>E24 - FILTERS</b>	<i>Is engaged when the value of the coffee filter decouner falls to zero.</i>	 Replace the filters. Reset the programmed grinder decouner.
<b>Omnifet memorized signals</b>		
<b>E30 - OMNIFET XX</b>	<i>Is engaged when a fault is sensed on the omnifet xx .</i>	 Check for any short circuits relative to the omnifet indicated. Remove the cause and switch off the distributor for a few minutes. Undertake alarm reset operations
<b>xx Omnifet controlled output (E version)</b>		
0 Pump relay		8 Tea solenoid
1 Coffee solenoid		9 Coffee measurer
2 Tea mixer		10 Tea motor
3 Milk/hot chocolate solenoid		11 Milk/hot chocolate mixer
4 Sugar motor		12 (not used)
5 Sugar release		13 (not used)
6 Stroke counter		14 (not used)
7 Water hot solenoid		15 (not used)
		16 Grinder
<b>xx Omnifet controlled output (I versioin)</b>		
0 Stroke counter		8 Chocolate motor
1 Coffee solenoid		9 Sugar motor
2 Tea mixer		10 Milk motor
3 Coffee solenoid		11 Milk/hot chocolate mixer
4 Tea solenoid		12 (not used)
5 Milk/hot chocolate solenoid		13 (not used)
6 Coffee motor		14 (not used)
7 Tea motor		15 (not used)
		16 Coffee mixer
<b>Non memorized signals</b>		
<b>E25 - NO GROUP</b>	<i>Is engaged should the coffee group fail to be sensed through the special micro. The message "no coffee" will be displayed</i>	 Check the group presence micro-switch and replace if necessary
<b>Vega card alarms</b>		
<b>Memorized alarms</b>		
Vega eeprom	<i>Is engaged should an eeprom error be found. By effecting a re-set operation the factory details willl also be re-entered on the eprom (only if this alarm is present)</i>	 Undertake alarm reset operation.
<b>Non memorized alarms</b>		
<b>V00 - OUT OF ORDER</b>	<i>Engages in the event of interruption in communication between the vega and master cards</i>	 Check the master/slave connection. Check the alarms during maintenance
<b>Memorized signals</b>		
Vega sector xx	<i>Engages in the event of the expiry of the motor timeout of the xx sector during delivery</i>	 Check the sector geared motor, spiral and electrical connections
Vega T safety	<i>is engaged if the safety temperature is exceeded (only for Pan type).</i>	 Check the programming parameters Check cooling unit
Vega NTC probe	<i>Occurs in the event of the short circuiting of the temperature probe or in the event of open circuit. On switching on a delay of 30 seconds is envisaged before alarm occurs</i>	 Check NTC probe resistances and replace if necessary. Check the electrical connections

<sup>(1)</sup> The alarm E16-CAPACITY is a mere signal, that does not cause a block, but that indicates a progressive reduction of the water flow in the PUMP-electrovalve circuit or an inefficiency of the volume meter, this signal pre-announces an imminent failure E04 - PUMP.

Other signals that do not block are foreseen and have the objective of advising that the regeneration of the descaler resins, of the blades or filters is necessary.

The number of vends beyond which the regeneration is deemed necessary is set in the OPTIONS menu; the display messages foreseen are:

- \* to indicate the error **E16 CAPACITY**
- α to indicate the **purifier** regeneration
- & to indicate the substitution of the **filters**
- \$ to indicate the substitution of the **grinder blades**
- # to indicate the substitution of the **filters** and of the **grinder blades**
- % to indicate the **purifier** regeneration and the substitution of the **grinder blades**
- Ω to indicate the **purifier** regeneration and the substitution of the **filters**
- π to signal the regeneration of the **purifier**, substitution of the resins and the **grinder blades**

If one of the above mentioned symbols are displayed, going into **SERVICE** mode instead, the message **ALARM** will appear followed by the signal for which the regeneration is necessary.

A safety disposition is foreseen "**group present**" (A Micro switch assembled on the boiler-group support) in the versions with plastic group; in the absence of the group the machine indicates to SELECT DRINKS WITHOUT ESPRESSO COFFEE.

#### The presence of the following is also indicated:

- coffee unit
- water
- coffee
- cups
- dreg container empty

#### safety elements:

- coffee heater thermostat
- door switch
- mechanical anti- flooding
- pump, grinder, coffee delivery unit motor (timed regulation)

## 12.0 ACCESSORIES KIT

- PUMP KIT
- CLOCK KIT
- HEATED CUP KIT
- HOT WATER SOLENOID VALVE
- ELECTROMECHANICAL STROKE COUNTER
- OVERSIZED PRODUCT CONTAINERS
- PURIFIER