

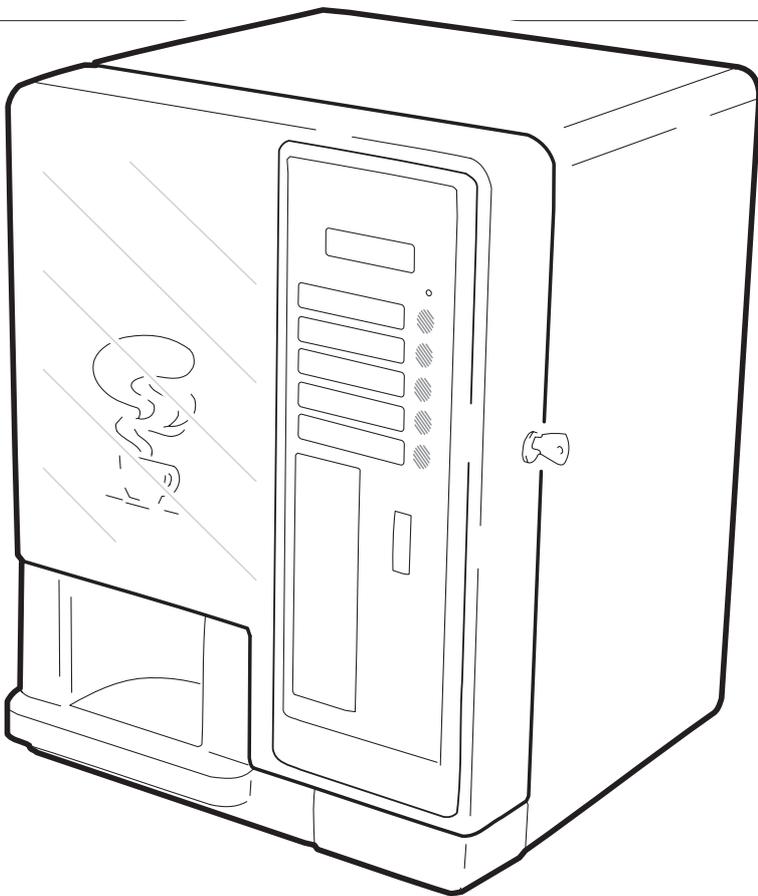


**Automatic drink vending machine**

**model**

**Saeco D.A.**

**3P / 5P**



**INSTRUCTION AND MAINTENANCE MANUAL**

## MAIN PARTS

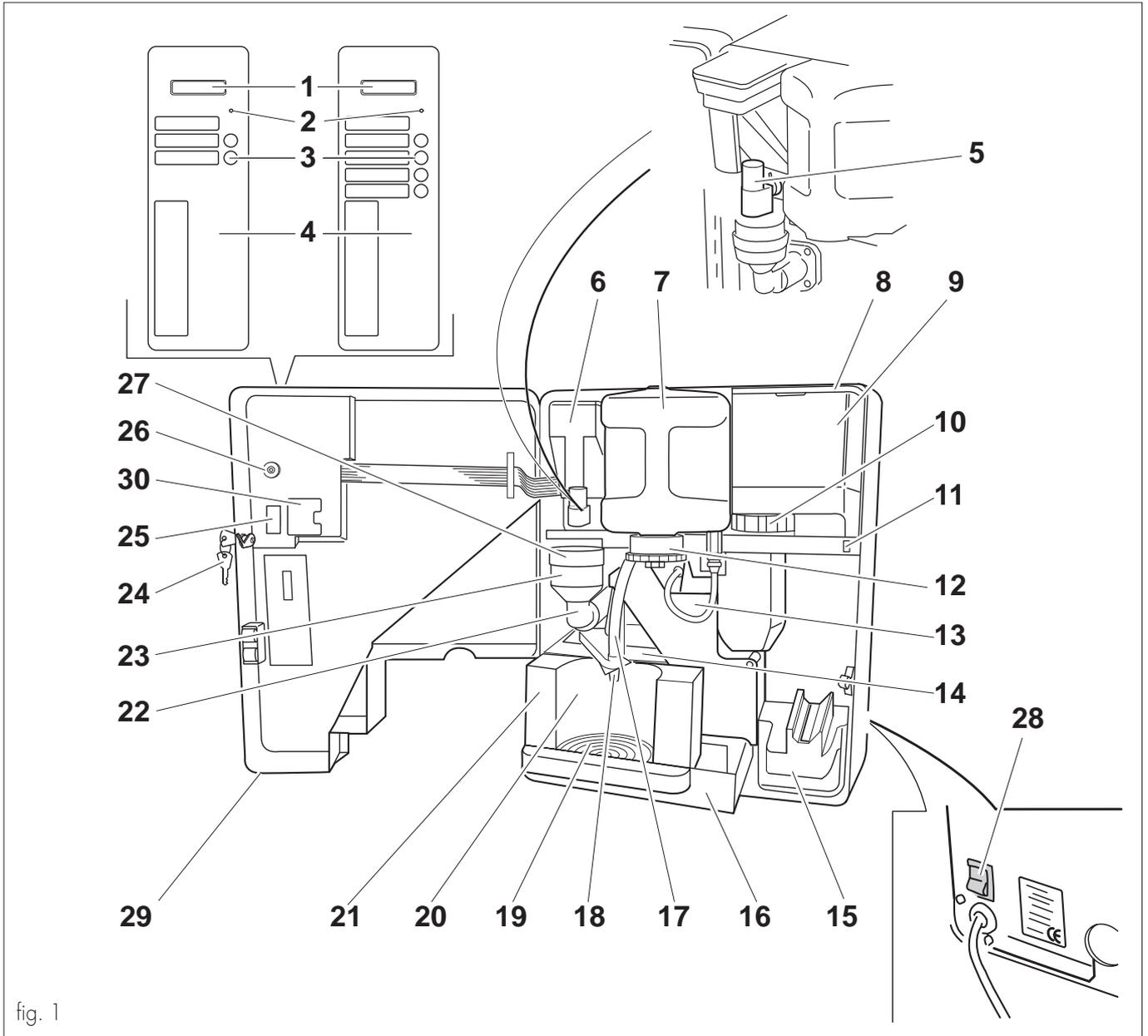


fig. 1

- |   |   |
|---|---|
| <b>1</b> Display                                    | <b>16</b> Drip tray                                   |
| <b>2</b> Fault light                                | <b>17</b> Hot water nozzle                            |
| <b>3</b> Keys (D.A. 3P - D.A. 5P)                   | <b>18</b> Drink dispenser                             |
| <b>4</b> Coin slot                                  | <b>19</b> Drain grill                                 |
| <b>5</b> Silicon bushing (only D.A. 5P)             | <b>20</b> Dispensing slot                             |
| <b>6</b> Soluble product container (solo D.A. 5P)   | <b>21</b> Grill stand                                 |
| <b>7</b> Water tank                                 | <b>22</b> Mixing chamber (only D.A. 5P)               |
| <b>8</b> Coffee container cover                     | <b>23</b> Instant product funnel (only D.A. 5P)       |
| <b>9</b> Coffee bean hopper                         | <b>24</b> Door key                                    |
| <b>10</b> Grinder selecting knob                    | <b>25</b> Serial port                                 |
| <b>11</b> Opening for safety micro-switch bypassing | <b>26</b> RESET key                                   |
| <b>12</b> Tank cover with valve                     | <b>27</b> Instant product funnel cover (only D.A. 5P) |
| <b>13</b> Coffee unit                               | <b>28</b> Main switch                                 |
| <b>14</b> Coffee grounds tray                       | <b>29</b> Internal access door                        |
| <b>15</b> Coin/token box                            | <b>30</b> Clock module door                           |

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# 1 - MANUAL OVERVIEW

## 1.1 Introduction

### Important

*This publication is an integral part of the vending machine and should be read carefully. It contains the technical information required for proper installation, maintenance and operation of the D.A. 3P and 5P with clock module. Always refer to this publication before performing any operation.*

*Figures show the model D.A. 5P, but can also be referred to the model D.A. 3P without substantial differences.*

Manufacturer: **Cosmec S.p.A.**

Via Panigali, 39 - 40041 GAGGIO MONTANO (Bo)

In the internal part of the cover you will find the page with the illustration most frequently referred to by the text. Keep it open while you read the publication.

This publication should be kept with care and must accompany the machine during the whole of its operating life, including ownership changes.

In case this publication is lost or damaged, immediately ask an AUTHORIZED SERVICE CENTRE for a new copy.

- The Manufacturer owns all the copyrights of this publication.

## 1.2 Used symbols

Various types of indications were used in this publication with the purpose of underlining the various danger or competency levels. As a complement to the symbol a message is reported explaining procedures and giving useful information:



### **Danger**

*It's used to underline dangerous situations for both the vending machine operators and the machine itself.*



### **Maintenance technician**

It's used to mark out the operations that should be performed only by specialized personnel.

### Important

*It's used to mark out the operations that ensure good vending machine operation if performed.*

# 2 - MACHINE INFORMATION

## 2.1 User information

- The vending machine is programmable as for the doses of any type of vend.
- The vending machine is pre-set to accommodate the PARALLEL 12V coiner and the mechanic token coiner.
- The vending machine is pre-set for the insertion of an additional function (CLOCK MODULE) that allows start up or shutdown programming.
- In case of need refer to the national Importer or Distributor or to the Manufacturer if the Importer is not available.
- AUTHORIZED SERVICE CENTRES are available for any clarification or information concerning vending machine operation, or to satisfy spare part supply or technical assistance demands.
- The manufacturer reserves the right to carry out improvements to the vending machine without prior notice.

## 2.2 Vending machine intended use

The vending machine D.A. 5P is capable of dispensing in a completely automatic and programmable way:

- espresso coffee prepared with instantly ground bean coffee;
- drinks based on soluble lyophilized products (chocolate, milk, tea, etc.)
- hot water for the preparation of hot drinks

The vending machine D.A. 3P is capable of dispensing in a completely automatic and programmable way:

- espresso coffee prepared with instantly ground bean coffee;
- hot water for the preparation of hot drinks.

### Important

*In case of improper use any form of warranty shall decay and the manufacturer shall disclaim all responsibilities for damages to people and/or objects.*

The following shall be considered improper uses:

- any use other than the one provided for and/or with techniques different from the ones described in this publication;
- any intervention on the vending machine in contrast with the procedures described in this publication;
- any use after component tampering and/or after changes to the safety devices;
- Installing the device outdoors

## 2.3 Residual risks

The dispensing slot is not protected against accidental contact of hands with the hot liquid.

## 2.4 Vending machine identification

The vending machine is identified by the model name and the registration number, both of which can be found on the identification tag placed in the lower left part of the back panel (fig. 2).

The tag bears the following specifications:

- Manufacturer name
- vending machine model
- some constructive specifications:
  - power supply voltage (V)
  - power supply frequency (Hz)
  - power absorption (W)
- EC marking
- Registration number
- Year of manufacture

### Important

*Do not remove or damage the identification tag, as it's the only element that bears all the information allowing the Manufacturer to identify the vending machine.*

*For any demand to the AUTHORIZED SERVICE CENTRES (assistance, spare parts, etc.) always refer to this tag, reporting specific vending machine data printed on it.*

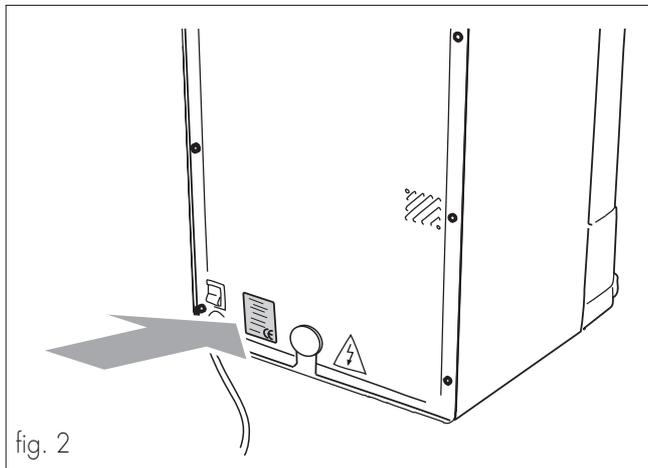


fig. 2

## 2.5 Technical specifications

| Size  | D.A. 5P D.A. 3P       |      |
|---|-----------------------|------|
| W. .... mm  | 382                   |      |
| D. .... mm  | 355                   |      |
| H. .... mm  | 505                   |      |
| Weight. .... kg   | 25                    | 22.5 |
| Installed power. .... W   | (*)                   |      |
| Power supply voltage. .... V  | (*)                   |      |
| Power supply frequency. .... Hz                                       | (*)                   |      |
| Supply cable length. .... mm  | 1500                  |      |
| <b>Capacity</b>   |                       |      |
| Lyophilized product container. .... kg.<br>(extractable, transparent) | 0.5 to 1.2            |      |
| Coffee container. .... kg.<br>(extractable, transparent)              | 1.1                   |      |
| Water tank. .... litres   | 4.8                   |      |
| Water supply. ....  | external tank         |      |
| .....   | waterworks connection |      |
| Waterworks pressure. .... bar   | 1.5 - 8               |      |
| Waterworks connection. ....   | 3/4" Gas coupling     |      |

(\*) See tag on the back of the vending machine

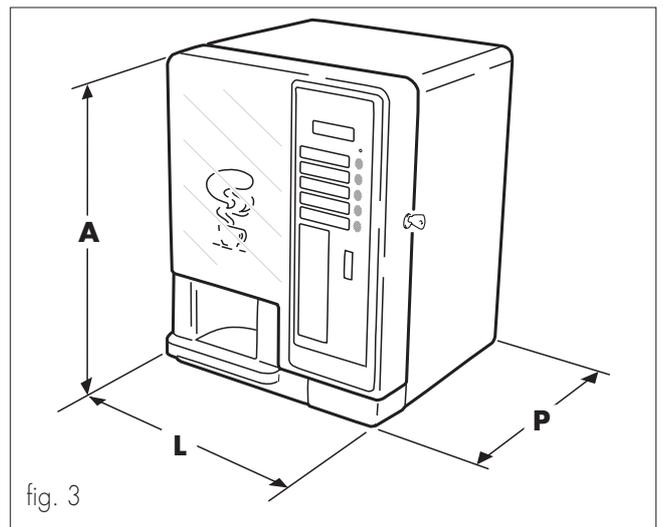


fig. 3

# 3 - HANDLING AND STORAGE

## Handling

The Manufacturer protects the vending machine with cardboard packaging that bears the primary warnings.

- During handling and transportation, the vending machine should remain in a vertical position as per indications printed on the packaging.
- Perform hoisting and positioning operations with care, using adequate means to the load to be hoisted.
- For possible manual hoisting use the special handles placed on the packaging sides.
- Do not lift the vending machine while looking for the grip on the sides of the packaging.
- Do not shake the vending machine.

## Storage

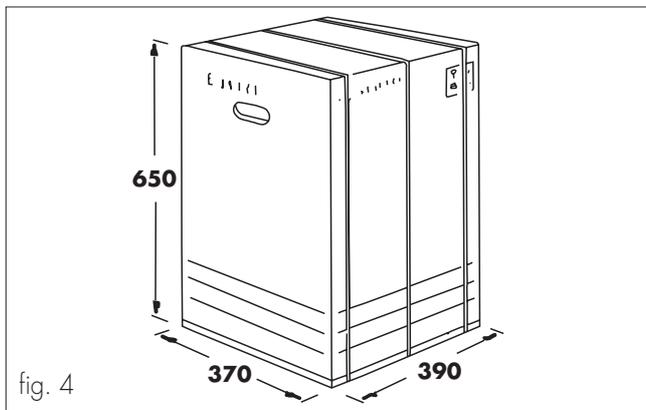
- The vending machine is contained in cardboard packaging with reinforced base (refer to fig. 4).



**Danger**

*The vending machine packaging can stand 50 kg in weight, therefore do not stack more than two vending machines.*

- The vending machine should be stored in its original packaging, in dry and non-dusty places.



# 4 - SAFETY

## 4.1 General safety rules

- Carefully read this publication before using the vending machine.
- It's absolutely forbidden to deactivate the safety devices installed on the vending machine.

- Vending machine cleaning and maintenance operations should be performed with the main switch (ref. **28**, fig. 1) in the "O" position, or after having removed the plug from the mains outlet.
- Do not try to remove protection plates and panels. If required, call for the assistance of our sales network (addresses in the last page).
- Do not autonomously modify parts of the vending machine; failure in complying with this provision shall result in the cancellation of the Manufacturer's responsibility.
- Do not aim water squirts on the vending machine.
- Never pour liquids of any type on the vending machine.
- Do not dip the vending machine in water.

## 4.2 Operator requirements

With the purpose of proper vending machine operation and safety, two type of operators with different requirements are defined:

### Maintenance technician

Specialized person responsible for vending machine installation, first adjustment and, more in general, specific maintenance.

### User

Person with a medium specialization level that has read the norms in the present manual and has followed a proper training course as per laws in force.

The User is allowed to start the vending machine, adjust its working parameters, stop it, carry out its normal loading and coin collection operations, and finally to carry out its external cleaning.



**Danger**

*The User is forbidden to carry out the operations indicated in the present manual as a specific competency of the maintenance technician.*

## 4.3 Installed safety devices

- A safety valve protects the vending machine from overpressures in the hot-water production system.
- The heater is protected against overheating by a thermostat and a thermal fuse.
- A series of micro-switches controls the position of the drip tray (ref. **16**, fig. 1), of the vending machine internal access door (ref. **29**, fig. 1), of the coffee unit (ref. **13**, fig. 1), and of the coffee grounds tray (ref. **14**, fig. 1). If one of the components is not in the proper position, the relevant micro-switch stops vending machine operation and the display will show the message informing about component out of place.

## 5 - COMMAND AND INSTRUMENT DESCRIPTION

### Important

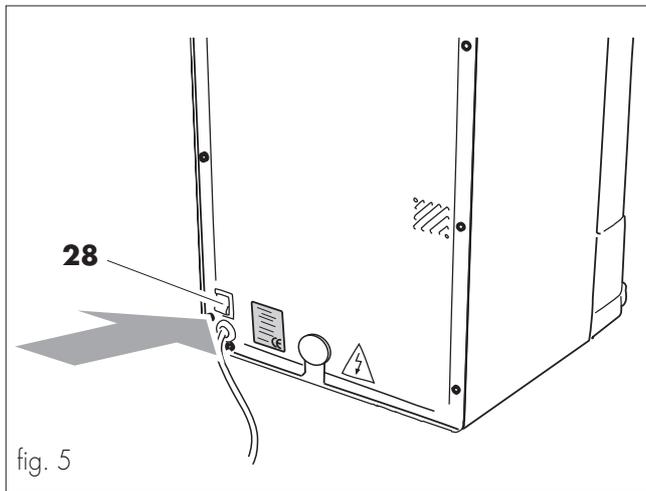
The vending machine is delivered with the dispensing keys already programmed on standard values.

### Main switch (ref. 28, fig. 5)

It's located in the lower right back side of the vending machine.

On the "I" position it turns the vending machine on (enabling electric functions)

On the "O" position it turns the vending machine off (disables electric functions)



### Keypad D.A. 5P (ref. 3, fig. 6)

It's composed of 5 re-programmable keys that when pressed control the dispensing of the same number of drinks, identified from top to bottom as **A - B - C - D - E** (ref. 3, fig. 6).

The correspondence between key and dispensed drink is at the User's discretion.

The **A - B - C - D** keys (ref. 3, fig. 6) are also used to perform programming.

(refer to "7 - Programming")

### Keypad D.A. 3P (ref. 3, fig. 6)

It's composed of 3 re-programmable keys that when pressed control the dispensing of the same number of drinks, identified from top to bottom as **A - B - C**.

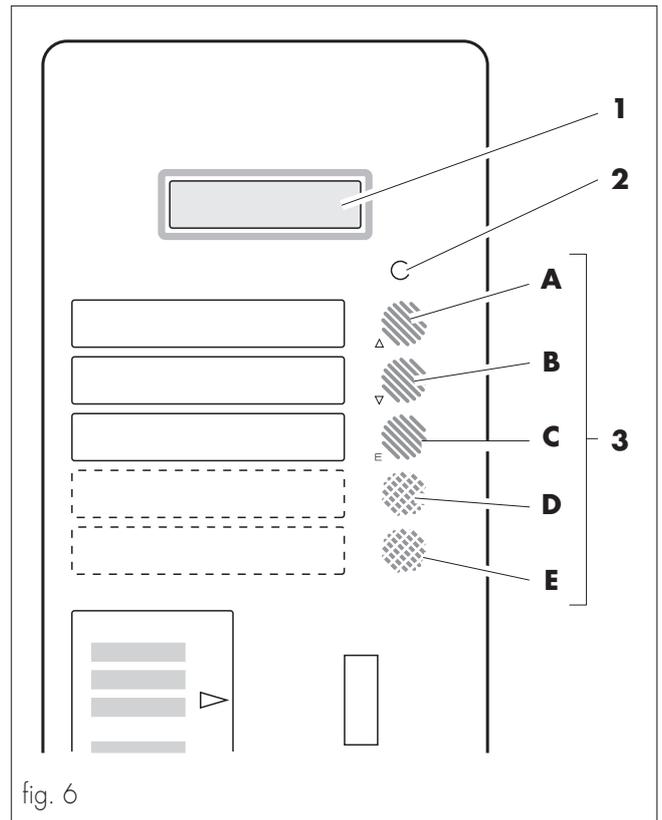
The correspondence between key and dispensed drink is at the User's discretion.

The **A - B - C** keys (ref. 3, fig. 6) are also used to perform programming.

(refer to "7 - Programming")

### Display (ref. 1, fig. 6)

It's composed of 2 lines with 16 characters each, and has the duty of displaying the messages relating to the operations (in progress or to be performed) and the possible out-of-service conditions.



### Red indicator light (ref. 2, fig. 6)

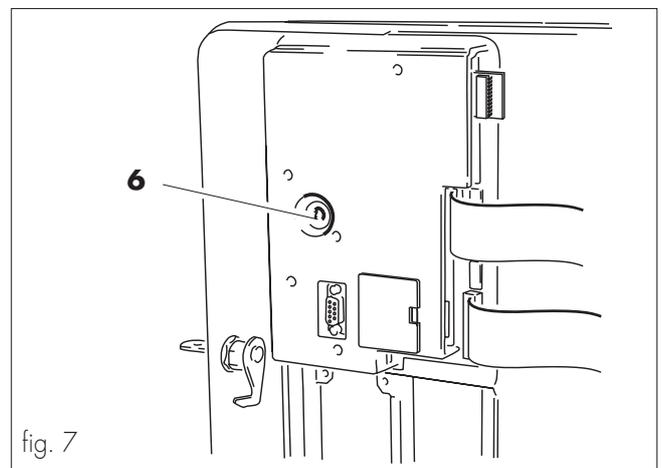
When the light is on it indicates that the vending machine is not ready for drink dispensing.

In any case the display (ref. 1, fig. 6) supplies the indications on vending machine operative or out-of-service status.

### Reset key (ref. 6, fig. 7)

It's located on the internal part of the door and may perform the following functions:

- Resetting "OUT OF SERVICE" (out -of-service) indications (refer to "Display messages").
- Water circuit filling (refer to "6.2 Water connection").



## 6 - INSTALLATION



### Danger

*The presence of strong magnetic fields or the vicinity of electric machines generating strong disturbances might cause malfunctioning of the vending machine electronic control.*

- Install the vending machine in a protected environment with temperatures varying between 10°C and 40°C.
- Make sure that no tampering occurred during transportation, checking that original packaging is intact and closed with straps.
- Move the closed box near the installation area (refer to "3 Handling and storage"), cut the straps and lift the carton.
- Verify the state and the model of the vending machine contained in the carton.
- Check the contents of the accessory envelope attached to the vending machine (refer to "6.2 List of accessory equipment).
- Remove the vending machine from the original packaging. It is advisable to keep the latter for later transportation or moving.
- Free the vending machine from residual packaging.



### Important

*Possible packaging element disposal shall be performed in compliance with the laws in force in the country while respecting the environment.*

- Place the vending machine on a horizontal plane surface having adequate size and capable of standing its weight. The bearing surface shall not exceed an inclination of 2°.



### Important

*To ensure proper vending machine ventilation, the machine's rear panel should be at least 8 cm away from walls, partitions, etc.*

*Do not cover the vending machine with cloths or other things.*

### 6.1 List of accessory equipment

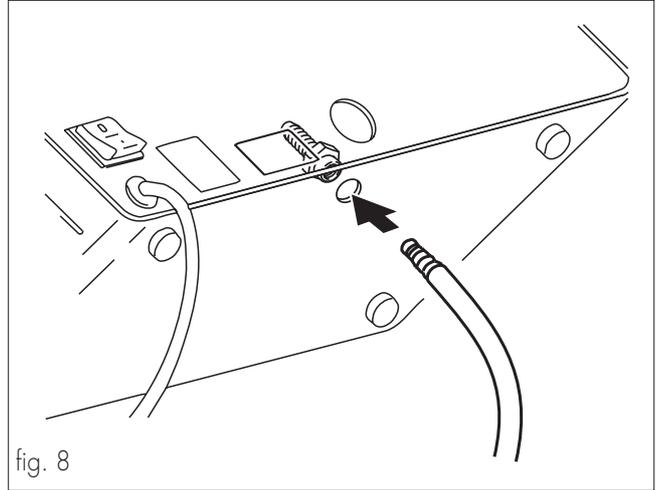
- Micro operation key for safety system deactivation
- 4 screws and nuts for coiner fixing
- Series of stickers with prices and accepted coins
- Series of stickers with instructions and dispensed products
- 1 coupling for water pipe to tank (only for pre-set version with tank)
- 1 wrench for mix fan fitting
- 1 Operation and Maintenance booklet

### 6.2 Water connection



#### Machine with tank into the floor cabinet

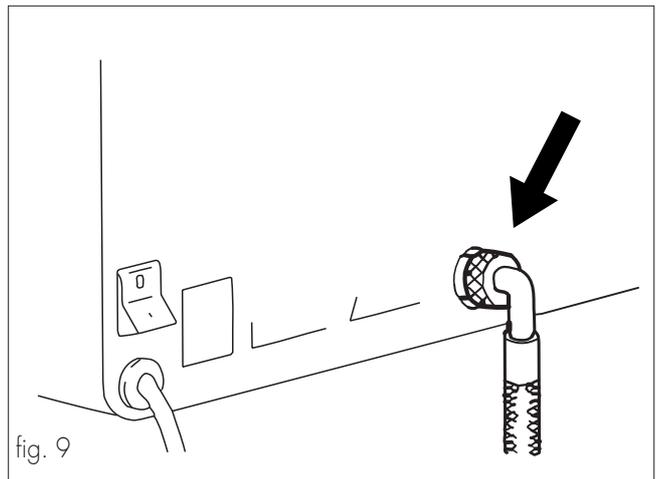
- Fit the special water connection.
- Insert the water aspiration tube in the special connection under the dispenser (fig. 8).
- Insert the tube in the can.



#### Machine with direct waterworks connection

(Type D.A. 3P R.I. e D.A. 5P R.I.)

- Connect the vending machine to a drinking water distribution conduit having a pressure between 1,5 and 8 bar. To do this use a loading tube with adequate characteristics and connect it to the G3/4" coupling located on the vending machine back panel (fig. 9).



### Important

*It is advisable to feed the vending machine with treated water by means of a decalcifying device, especially when the water has high calcium and magnesium salts content (hard water).*

### 6.3 Electrical connection



The vending machine is pre-set for electrical operation with a single-phase voltage whose value is stated in the identification tag (Refer to "2.4 Vending machine identification") (fig. 2).



#### Danger

*The connection point of the electric outlet must be located in a place that can be easily reached by the user, so that he can easily disconnect the vending machine from the power supply when required.*

Before connecting, make sure that:

- The mains supply voltage of the outlet the vending machine is connected to corresponds to the one indicated on the tag.
- The electric installation of the place where the vending machine is going to be installed complies with the laws in force, and has the characteristics enabling it to stand the required maximum load indicated on the tag.

Check the electric installation's compliance with the safety rules in force; in case of doubt, require an accurate electric installation survey by qualified professional staff.



#### Danger

*The use of adapters or patch cords is forbidden.*

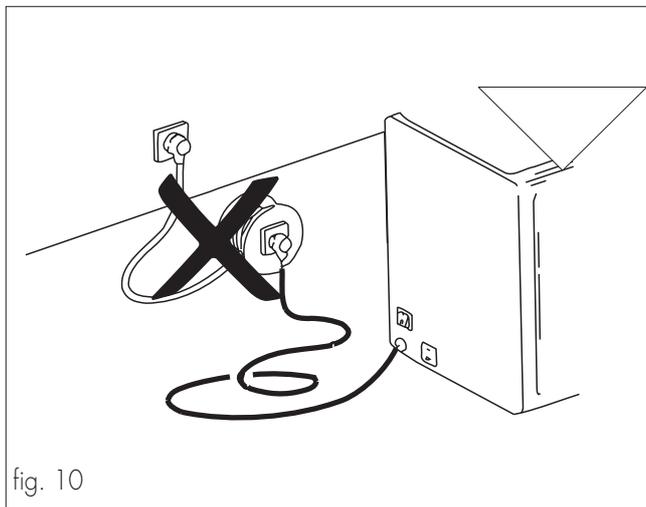


fig. 10

### 6.4 Fitting the PARALLEL 12 V d.c. coiner



Only 12 V d.c. parallel or mechanical coiners may be used on this vending machine.

- Remove the token accepting device support (fig. 11).
- Drill a hole on the keypad panel (fig. 11).

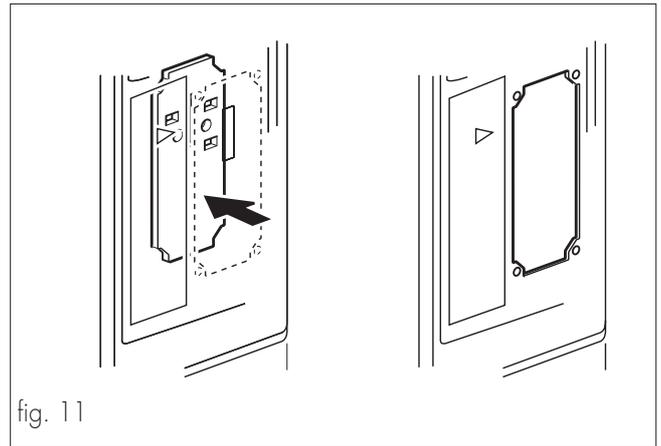


fig. 11

- Insert the coiner and fix it by using the 4 supplied screws with nuts (fig. 12).
- Connect the flat cable to the coiner (fig. 12).

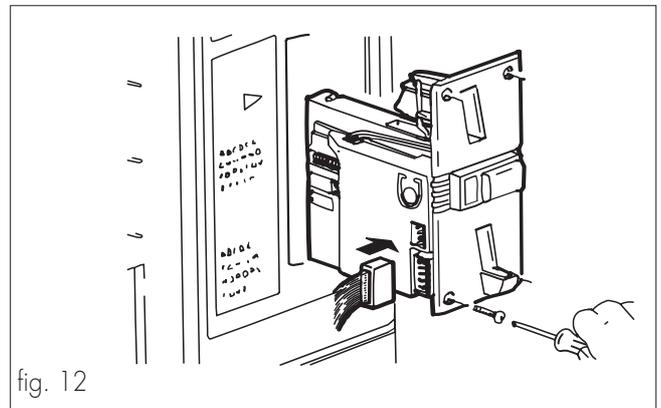


fig. 12

- Connect the flat cable to the electronic board (fig. 13).

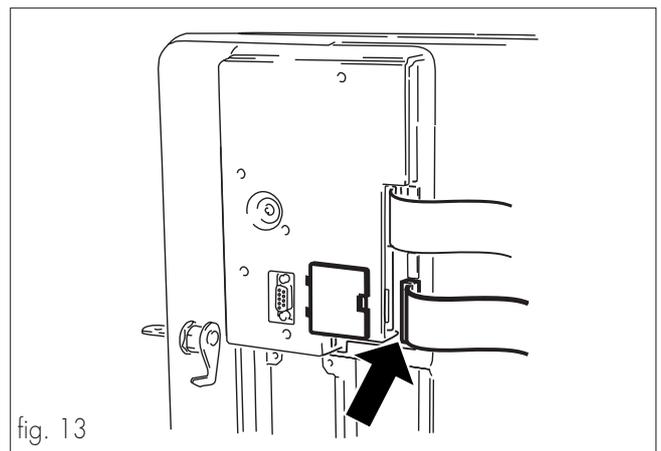


fig. 13

#### Important

*The Company disclaims all responsibilities for damages to vending machine, properties and people arising out of improper installation of the payment system; this responsibility falls directly on whoever performed the fitting.*

## 6.5 Insertion of the Clock module



**Danger**

*This operation should be carried out by the maintenance technician.*

The "Clock Module" device manages the following functions:

- the times when free dispensing is performed;
- Vending machine start up and shutdown times;
- the times when discounts or price rises should be applied, and their amount;
- cleaning frequency

The following operations should be performed to insert the module:

- disconnect the device from the power supply;
- open the vending machine door (ref. **29**, fig. 1) and remove the small door (ref. **D**, fig. 14);
- insert the module (ref. **A**, fig. 14) in the electronic board connector.



**Important**

*The module (ref. **A**, fig. 13) is inserted properly when the reference mark is in the lower part (fig. 14).*

- Re-fit the small door (ref. **D**, fig. 14).
- Re-close the door (ref. **29**, fig. 1).

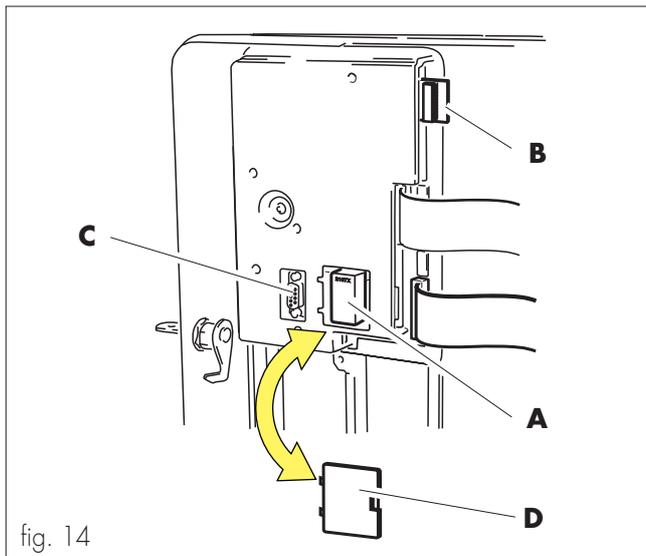


fig. 14

## 6.6 Insertion of the Nation key



**Danger**

*This operation should be carried out by the maintenance technician.*

The "nation key" contains the following data:

- Language used by the display.
- Software settings connected with the country of operation.



**Important**

*The vending machine does NOT work without the "nation key" inserted, it is therefore necessary to insert it.*

*After having inserted the "nation key", the machine will refuse the introduction of keys for different countries.*

To insert the nation key it's necessary to perform the following operations:

- Disconnect the power supply.
- Open the vending machine internal access door (fig. 14).
- Insert the key (ref. **B**, fig. 14) in the electronic board connector.
- Re-close the door.

## 6.7 Serial port connection



**Danger**

*This operation should be carried out by the maintenance technician.*

A serial port (ref. **C**, fig. 14) is installed beside the "clock module" connector.

Through the serial port the vending machine may be connected to a Personal Computer or to the devices supplied to the AUTHORIZED SERVICE CENTRES in order to carry out inspections and programming operations.

## 6.8 Affixing labels and stickers

Separate the accessory drink labels supplied with the machine by following the broken line.

Apply the adhesive prices on the drink labels.

Insert the tags in the special housings (fig. 15-16) through the slots located in the internal part of the door (ref. **29**, fig. 1).

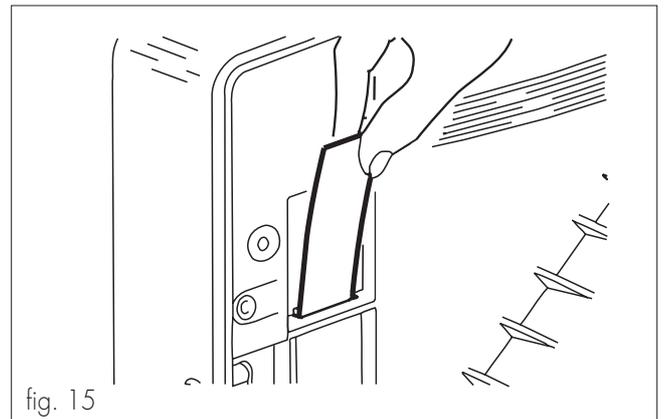


fig. 15

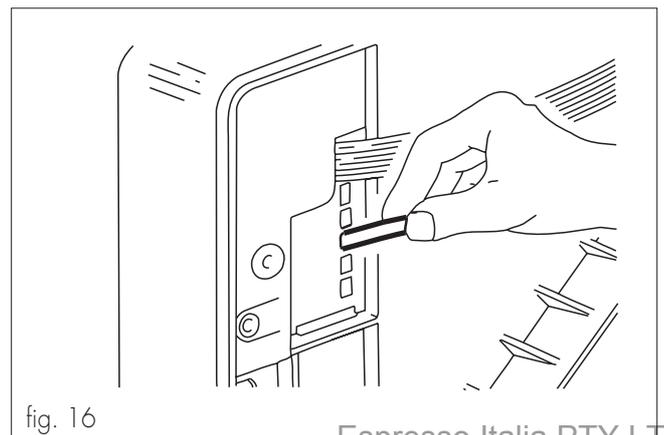


fig. 16

## 7 - PROGRAMMING

This chapter describes how to set and/or change the parameters programmed on the vending machine.

It is then advisable to read it carefully, performing the intervention only once the proper sequence of operations to be performed has been understood.

In order to better understand the issue, it's necessary to define a few terms that are going to be used in this chapter:

- The term "digit" stands for the number or the letter that together with others, composes the "parameter".
- The term "parameter" stands for the whole of the "digits" that sets a certain function.

The Programming system is developed in four levels:

- The first level includes the five main items of the programming menu;
- The second level displays all the functions of each programming menu item;
- The third level displays the memorized settings for each programmable function;
- The fourth level displays the modifiable parameters of the functions.

The five main items of the Programming menu are:

- system management
- payment systems
- drink preparation
- vending handler
- time management

### SYSTEM MANAGEMENT

It's the first main item of the Programming menu.

It allows to set the parameters concerning machine operation and verify its use status (by reading the counters).

Moreover, it's possible to assign a code to the vending machine, display the registration number and insert or modify the password that gives access to programming.

The displayable counters refer to:

- coffee;
- water;
- drinks;
- soluble products (only D.A. 5P)

For each of them the counter reports the number of performed vends and the executable ones. Beyond such limit the vending machine will stop dispensing drinks.

Each counter may be zeroed.

The number of possible vends (BLOCKS) can be modified.

System Management allows to:

- change the maximum and minimum vending machine operating temperatures;

- change current date and time;
- insert text lines that will be visualized on the display during drink dispensing, when the vending machine is on standby and when it stops for out-of-service or due to a problem;
- activate the pre-selection that displays the balance cash amount for drink dispensing.

### PAYMENT SYSTEMS

It's the second main item of the programming menu.

It allows the setting of all the following parameters associated with the different payment systems:

- coin values;
- enabling multi-product dispensing (residual credit management);
- OVER-PAY time (residual credit confiscation).

### BEVERAGE PREPARATION

It's the third main item of the programming menu.

In model D.A. 5P, it allows the preparation of the five dispensable drinks.

Each drink may be obtained by combining coffee bean grinding with the soluble product and water. Dispensing shall be performed according to the set sequence. The quantity of ground coffee shall be set for each drink, together with the quantity of soluble product and water, and the dispensing speeds of the soluble product and water.

In model D.A. 3P, it allows the preparation of the three dispensable drinks.

Each drink is obtained from the combination of bean coffee grinding and water. Each drink requires the setting of coffee and water quantity.

### SALES MANAGEMENT

It's the fourth main item of the programming menu.

In model D.A. 5P, it allows to set the value of four prices to be associated with the five drinks.

In model D.A. 3P it allows to set the value of four prices to be associated with the three drinks.

### TIME MANAGEMENT

It's the fifth main item of the programming menu.

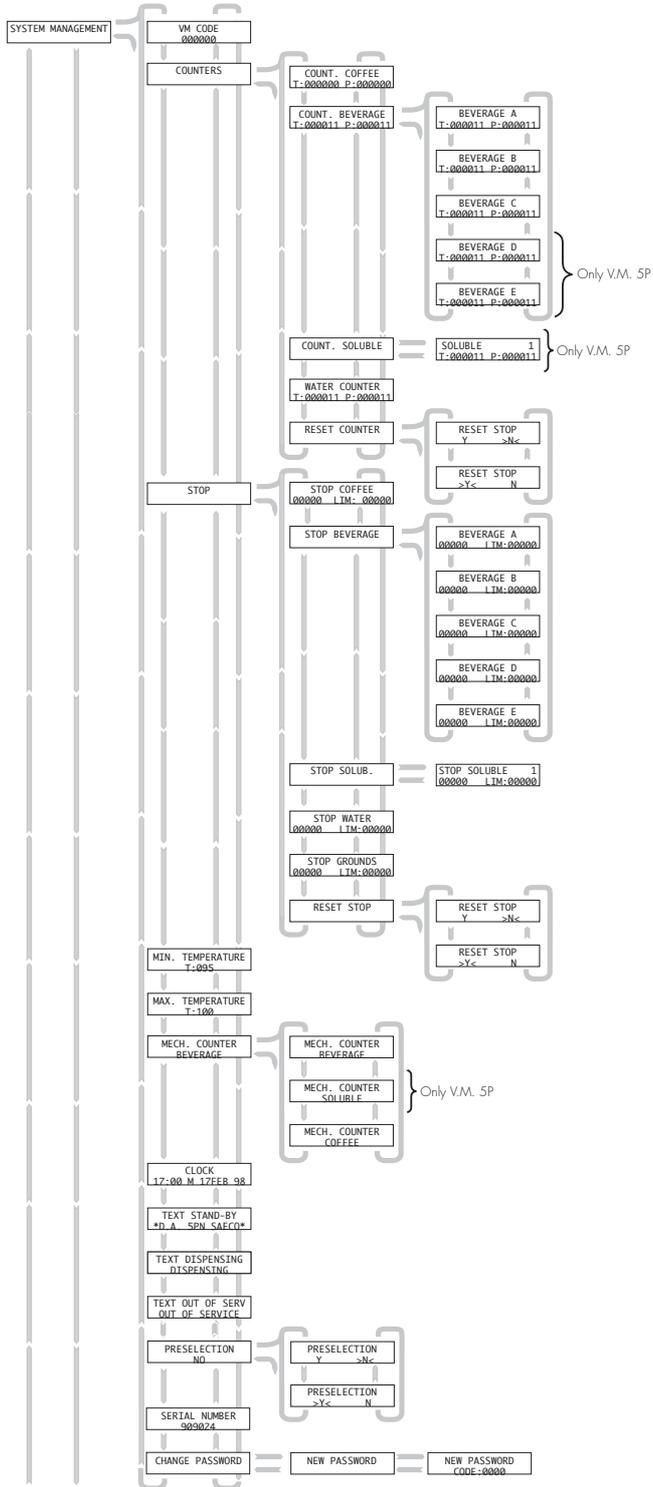
It allows to set the following vending machine functions to be performed within certain time bands:

- free product dispensing;
- machine start up and shutdown time;
- time bands within which discounts or rises should be applied to drink prices;
- hydraulic circuit automatic cleaning

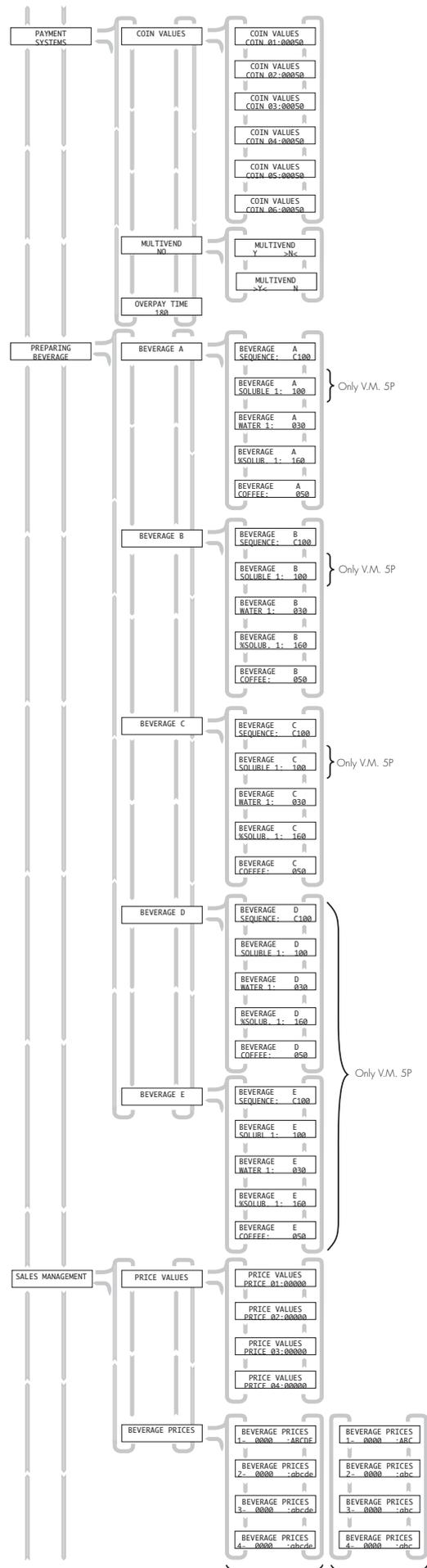
# 7.1 Programming structure

## Part 2

### Part 1



Continues



Continues



## 7.4 Selection of the parameter to be changed or displayed

The five menu items can be scrolled on the display to verify their parameters and eventually modify them.

This requires:

- Entering function programming (refer to "7.3 Programming Mode Access")
- Scroll menu items with the "UP" and "DOWN" keys.
- Stop the selection on the menu item managing the function to be verified or modified.
- Press the "ENTER" key to enter in the item.
- Scroll the various functions with the "UP" and "DOWN" keys.
- Stop the selection on the function whose parameters should be displayed or modified.
- Press the "ENTER" key to display the parameter.

## 7.5 Changing and saving parameters

Changing or memory-storing parameters requires:

- Displaying the parameter to be changed (refer to "7.4 Selection of the parameters to be changed or modified").
- Pressing the "ENTER" key to access the parameter to be modified. The flashing cursor places itself on a digit.
- Increasing or decreasing the digit value by means of the "UP" and "DOWN" keys.  
Pressing the "ENTER" key the displayed digit is stored to memory and replaces the previous one, while at the same time the cursor moves to the next digit.
- Following the same procedure to set the remaining digits.
- After having completed the digit change, confirm the new parameter with the "ENTER" key.  
If the change is accepted the flashing cursor disappears.

Sometimes the parameter to be stored to memory must be chosen among a list of pre-set parameters ("YES" and "NO", "WEEKDAYS" (weekdays), etc...). In these cases the "UP" and "DOWN" keys are used to scroll the flashing cursor or visualize the possible choices on the display.

### Example

Setting "YES" or "NO" in a function requires:

- Selecting the function.
- Accessing the change level by means of the "ENTER" key.  
Upon access a selection signal appears on one of the two writings: "Y" (YES) or "N" (NO).
- Using the "UP" or "DOWN" keys to select "Y" (YES) or "N" (NO).
- Pressing "ENTER" to confirm the choice. Pressing "ENTER" automatically moves to the access level of the function.

Inserting text in a function requires:

- Selecting the function.
- Pressing "ENTER" to type the text.  
The flashing cursor appears under the first letter on the left.
- Using the "UP" or "DOWN" keys to scroll the letters.
- Pressing "ENTER" to confirm the letter.  
The cursor moves to the following letter.

Operate in the same way for all the letters to be entered. The maximum number of letters that can be inserted is 16. Once the insertion is completed press "ENTER" twice.

If you want to move to a further parameter press the "UP" or "DOWN" keys.

- In model D.A. 5P to exit the modified parameter and change level, press the "**D - Cancel**" key.

Once all the parameters have been changed and stored to memory, press the "**D - Cancel**" key for as many times until you reach the function allowing exit from Programming "EXIT PROGRAM Y/N".

- In the model D.A. 3P to exit the modified parameter or change level, press the "UP" or "DOWN" keys.

Once all the parameters have been changed and stored to memory, press the "UP" or "DOWN" keys for as many times until you reach the function allowing exit from Programming "EXIT PROGRAM Y/N".

## 7.6 Menu description

**N.B.:** *The numbers to be entered for each item are not referred to a measure unit (gr., ml., etc.), and are mere reference values.*

### Important

*The following description of the menus refers to model D.A. 5P, but it may be referred also to model D.A. 3P without substantial differences.*

### First main voice of the programming menu

#### SYSTEM MANAGEMENT

Press "ENTER" to enter item functions.

#### VM CODE 001007

This function allows the assignment of an identification code to each device.

To insert the code you should follow the procedure described in chapter "7.5 Changing and saving parameters".

#### COUNTERS

This function allows the control of the number of drink, soluble products and water vends.

Pressing "ENTER" gives access to the lower level where counters are listed.

The lower line of each single counter displays the total vends after the letters "T" and "P".

The number after the letter "T" corresponds to the total performed vends, and cannot be zeroed.

The number after the letter "P" corresponds to the total vends performed since the last zeroing, (partial total) and may be zeroed with the "RESET" function.

**COUNT. COFFEE**  
**T:000000 P:000000**

Displays total and partial coffee vends.

**COUNT. BEVERAGE**  
**T:000025 P:00015**

Displays total and partial vends of all drinks, model D.A. 5P dispensing keys **A - B - C - D - E** (ref. 3, fig. 17), model D.A. 3P dispensing keys **A - B - C** (ref. 3, fig. 17).

Press "ENTER" to access the single counters.

**BEVERAGE A**  
**T:000005 P:000003**

**BEVERAGE B**  
**T:000005 P:000003**

**BEVERAGE C**  
**T:000005 P:000003**

**BEVERAGE D**  
**T:000005 P:000003**

**BEVERAGE E**  
**T:000005 P:000003**

Using the "UP" and "DOWN" keys it's possible to visualize total and partial vends for each single drink, model D.A. 5P dispensing keys **A - B - C - D - E** (ref. 3, fig. 17), model D.A. 3P dispensing keys **A - B - C** (ref. 3, fig. 17).

**COUNT. SOLUBLE**

Counting function for soluble products (only for model D.A. 5P). Press "ENTER" to access the display of the single counters.

**SOLUBLE 1**  
**T:000010 P:000004**

Displays total and partial soluble product vends.

**WATER COUNTER**  
**T:000010 P:000004**

Displays total and partial water vends.

**RESET COUNTER**

This function allows zeroing all partial counters. Press "ENTER" to access this option.

**RESET COUNTER**  
**->Y<- N**

To set the function follow the procedure described in chapter "7.5 Changing and saving parameters".

By confirming the letter "Y" the counters are zeroed.

**STOP**

This function allow the setting of a maximum number of drink vends, quantity of soluble powder, or coffee grounds disposals, in order to give a set frequency to the operations or interventions.

Once the set limits are reached, the vending machine stops dispensing (block).

The red led on means that the drink is not available (blocked).

In the lower line, the first sequence of numbers refers to the dispensed or expelled quantity of drinks or product after the last zeroing; the second sequence of numbers after "LIM:" indicates the maximum quantity to be dispensed or expelled.

To set the maximum number follow the procedure described in "7.5 Changing and saving parameters"

With the second sequence of number set as "LIM:0000" dispensing is performed with no block limit.

Press "ENTER" to access the selection of the various blocks.

**STOP COFFEE**  
**00000 LIM:00000**

This function allows the setting of a number of coffee vends before blocking.

**STOP BEVERAGE**

This function allows to set the number of drink vends, model D.A. 5P dispensing keys **A - B - C - D - E** (ref. 3, fig. 17), model D.A. 3P dispensing keys **A - B - C** (ref. 3, fig. 17), before blocking. Press "ENTER" to display the blocks for the single drinks.

**BEVERAGE A**  
**00000 LIM:00500**

**BEVERAGE B**  
**00000 LIM:00500**

**BEVERAGE C**  
**00000 LIM:00500**

**BEVERAGE D**  
**00000 LIM:00500**

**BEVERAGE E**  
**00000 LIM:00500**

Use the "UP" and "DOWN" keys to visualize the block parameters for each single drink, model D.A. 5P dispensing keys **A - B - C - D - E** (ref. 3, fig. 17), model D.A. 3P dispensing keys **A - B - C** (ref. 3, fig. 17).

**STOP SOLUB.**

This function allows setting the dispensing of a certain quantity of soluble powder; once this quantity is reached the dispensing of all the drinks containing such soluble powder is blocked..

The counter drops by a unit only when a dose equal to the one of the drink that uses its highest quantity is dispensed. The use of a lower dose than the reference one is counted as a fraction.

Press "ENTER" to access soluble product block display.

**SOLUBLE 1**  
00000 LIM:00500

Press "ENTER" to display the soluble product block parameter.

**STOP WATER**  
00000 LIM:00500

This function allows the setting of a number of water vends before blocking.

Press "ENTER" to display the block parameter.

**STOP GROUNDS**  
00000 LIM:00100

This function allows the setting of a number of coffee grounds expulsions before blocking.

Press "ENTER" to visualize the block parameter.

**RESET STOP**

This function allows the zeroing of all the product quantity partial counters.

Press "ENTER" to access this option.

**RESET STOP**  
->Y<- N

To set this function follow the procedure described in chapter "7.5 Changing and saving parameters":

Confirming the letter "->Y<-" zeroes the counters.

**MIN. TEMPERATURE**  
T:095

This function allows setting the temperature maintained by the device for a few minutes (about 4) after a drink has been dispensed. The lower line of the display shows the set value, expressed in degrees centigrade.

To set the minimum maintained temperature follow the procedure described in chapter "7.5 Changing and saving parameters".

**MIN. TEMPERATURE**  
T:100

This function allows the setting of the temperature reached by the device after a certain period of inactivity (about 4 minutes) to compensate the natural temperature fall.

The lower line of the display shows the set value, expressed in degrees centigrade.

To set the inactivity temperature follow the procedure described in chapter "7.5 Changing and saving parameters".

**MECH. COUNTER**  
**BEVERAGE**

This function allows, only if the mechanic pulse counter is fitted, to enable or not the total or partial counting of drink vends.

To obtain drink vend total count enable the "MECH. COUNTER BEVERAGE" function.

To obtain drink vend total count enable the "MECH. COUNTER BEVERAGE" or "MECH. COUNTER SOLUBLE" functions (only D.A. 5P) or "MECH. COUNTER COFFEE".

To select the count to be enabled follow the procedure described in chapter "7.5 Changing and saving parameters".

**CLOCK**  
\*09:33 L 05 MAR 97\*

This function allows the setting of the current hour, minute, day, month and year.

To set the function follow the procedure described in chapter "7.5 Changing and saving parameters".

Repeat the same procedure for all function data.

**TEXT STAND-BY**  
\*D.A. 5PN SAECO\*

This function allows the setting of the text that scrolls on the display when the vending machine is on standby.

To set the text follow the procedure described in chapter "7.5 Changing and saving parameters".

**TEXT DISPENSING**  
**DISPENSING**

This function allows the setting of the text that scrolls on the display when the vending machine is dispensing a drink.

To set the text follow the procedure described in chapter "7.5 Changing and saving parameters".

**TEXT OUT OF SERV**  
**OUT OF SERVICE**

This function allows the setting of the text that scrolls on the display when the vending machine stops due to a fault.

To set the text follow the procedure described in chapter "7.5 Changing and saving parameters".

**PRESELECTION**  
**YES**

This function allows the enabling or not of drink price display.

The lower line of the display shows the set parameter.

By enabling this function (YES) the user is allowed by pressing the key relating to a drink to visualize its price on the display. After a few seconds the visualization is cancelled.

Press "ENTER" to access this option.

**PRESELECTION**  
->Y<- N

To set this option follow the procedure described in chapter "7.5 Changing and saving parameters".

**SERIAL NUMBER**  
909024

It's the device registration number, set by the manufacturer, and it can only be displayed.

**CHANGE PASSWORD**

This function allows the setting of a password (0000 base setting) to prevent unauthorized personnel from directly accessing programming functions.

If a password is set, it shall always be typed before accessing programming.

Press "ENTER" to access this option.

**NEW PASSWORD**

Menu item that appears before changing the password.  
Press "ENTER" to set the new password.

**NEW PASSWORD  
CODE: 0000**

A flashing cursor appears under the first digit after "CODE:...".  
To set the password follow the procedure described in chapter "7.5 Changing and saving parameters".  
By pressing "ENTER" the machine moves automatically to the previous level "NEW PASSWORD".

**Warning**

*Write down the new password because in case of loss access to programming will be impossible.*

**Second main item  
of the programming menu****PAYMENT  
SYSTEM**

Press "ENTER" to access the item functions.

**COIN VALUES**

This function allows the association of a value to all the selectable coins.  
Press "ENTER" to display the coin list.

**COIN VALUES  
COIN 01:00050**

**COIN VALUES  
COIN 02:00050**

**COIN VALUES  
COIN 03:00050**

**COIN VALUES  
COIN 04:00050**

**COIN VALUES  
COIN 05:00050**

**COIN VALUES  
COIN 06:00050**

Press "ENTER" to display the value of the first coin.  
Press the "UP" and "DOWN" key to scroll the list of coins.  
To modify the coin value follow the procedure described in chapter "7.5 Changing and saving parameters".  
The coin value falls within a nation key - pre-set range.  
Pressing "ENTER" automatically moves the display to the previous level "COIN VALUES".

**MULTIVEND  
YES**

This function allows or not the use of residual credits to purchase other drinks.

The lower line of the display shows the set parameter.  
By enabling the function (YES) it's possible to use possible residual credits. On the contrary (NO), once the "OVER PAY", time is elapsed, the vending machine confiscates the residual credit.  
Press "ENTER" to access this option.

**MULTIVEND  
->Y<- N**

To set this option follow the procedure described in chapter "7.5 Changing and saving parameters".

**OVER PAY  
180**

This function determines the maximum time (expressed in seconds) after which the vending machine confiscates the residual credit visualized on the display.

To change the value follow the procedure described in chapter "7.5 Changing and saving parameters".

By setting the value to "000000" the function is disabled.  
By pressing "ENTER" the display automatically moves to the function access level.

**Third main voice of  
the programming menu****PREPARING  
BEVERAGE**

Press "ENTER" to access this item's functions.

**BEVERAGE A**

This function allows to display the dispensable drinks in sequence, model D.A. 5P dispensing keys **A - B - C - D** (ref. **3**, fig. 17), model D.A. 3P dispensing keys **A - B - C** (ref. **3**, fig. 17).

Press "ENTER" to access the display of the items composing the single drinks.

**BEVERAGE A  
SEQUENCE: 1000**

**BEVERAGE A  
SOLUBLE 1: 012** (only D.A. 5P)

**BEVERAGE A  
WATER 1: 030**

**BEVERAGE A  
%SOLUB. 1: 160**

**BEVERAGE A  
COFFEE: 050**

This level displays the dispensing sequence, quantities and speeds of the products composing each single drink.

Press the "UP" and "DOWN" keys to scroll the drink composition.

The upper line of the display will always show the selected drink, while the second line shows the settable parameters from time to time.

|                       |
|-----------------------|
| <b>BEVERAGE A</b>     |
| <b>SEQUENCE: 1000</b> |

This item allows the setting of the sequence with which the products composing the drink shall be prepared and dispensed (in this case **A**). Up to four beverages may be inserted.

To change the value, which varies between 0, 1 and C, follow the procedure described in chapter "7.5 Changing and saving parameters".

### Important

*In this function the digit 0 corresponds to no product, as a consequence the digit combination corresponding to "0100" or "1000" or "0010" will always provide for the dispensing of product 1.*

Depending on the sequence, it will be asked to set the parameters relating to the products that shall be dispensed in the drink.

Press the "UP" and "DOWN" keys to scroll the drink composition.

|                       |
|-----------------------|
| <b>BEVERAGE A</b>     |
| <b>SOLUBLE 1: 045</b> |

(Only D.A. 5P)

It defines the quantity of soluble product to be mixed with water.

The lower line shows "SOLUBLE 1:045".

045 indicates that 45 units of soluble product will be used.

To modify the soluble product quantity follow the procedure described in chapter "7.5 Changing and saving parameters".

### Important

*The quantity of soluble powder may be adjusted from 0 to 250 with 1-by-1 steps.*

*The product is not dispensed when the parameters are set on "0000".*

|                     |
|---------------------|
| <b>BEVERAGE A</b>   |
| <b>WATER 1: 030</b> |

It defines the quantity of water to be mixed with the soluble powder or coffee.

When "WATER 1:030" appears on the lower line, this means that water will be mixed with the soluble product or with coffee.

030 means that 30 water units will be dispensed in the soluble product or in coffee.

To modify the water quantity follow the procedure described in chapter "7.5 Changing and saving parameters".

### Important

*The quantity of hot water may be adjusted from 0 to 250 with 1-by-1 steps.*

*The product is not dispensed when the parameters are set on "0000".*

|                       |
|-----------------------|
| <b>BEVERAGE A</b>     |
| <b>%SOLUB. 1: 160</b> |

It indicates the speed with which soluble powder and water are dispensed in drink **A**.

### Important

*By setting the value on 10 the pump works at maximum flow rate, while the soluble product is dispensed by impulses at minimum flow rate.*

*By setting the value on 100 both the soluble product and water are dispensed at maximum flow rate.*

*By setting 190 the pump works by impulses at minimum flow rate, while the soluble product is dispensed at maximum flow rate.*

To change the dispensing speed follow the procedure described in chapter "7.5 Changing and saving parameters".

### Important

*Soluble powder and hot water may be adjusted between 10 and 190, with 10-by-10 steps.*

|                    |
|--------------------|
| <b>BEVERAGE A</b>  |
| <b>COFFEE: 050</b> |

It defines the quantity of coffee to be dispensed.

The lower line shows "COFFEE: 050".

050 means that 50 ground coffee units obtained with ground coffee shall be dispensed.

To change the coffee quantity follow the procedure described in chapter "7.5 Changing and saving parameters".

### Important

*The quantity of dispensable coffee may be adjusted from 0 to 500 with 2-by-2 steps.*

*The product is not dispensed when the parameter is set on "0000".*

## Example of a drink with one soluble product and coffee.

|                       |
|-----------------------|
| <b>BEVERAGE C</b>     |
| <b>SEQUENCE: C100</b> |

The letter "C", displayed in the first line indicates the drink corresponding to the **C** key (upper third in the keypad - ref. 3, fig. 17).

The four digits indicate the products (coffee and/or soluble product) shall be used to compose the drink.

In this example drink dispensing, selectable with the **C** key, shall be obtained by mixing water, coffee and soluble product.

**N.B.:** *the same drink may be obtained with the same products, set in different sequence (e.g. C001, or 0C01, etc.).*

Pressing the "DOWN" key moves the display to the next item.

**BEVERAGE C**  
**SOLUBLE 1: 012**

It represents the quantity of soluble product used in the drink **C** (ref. **3**, fig. 17).

Pressing the "DOWN" key moves the display to the next item.

**BEVERAGE C**  
**WATER 1: 030**

It represents the quantity of hot water dispensed in drink **C** with the soluble product.

Pressing the "DOWN" key moves the display to the next item.

**BEVERAGE C**  
**%SOLUB. 1: 160**

It indicated the speed with which the soluble product in the container (ref. **1**, fig. 18) and water are dispensed in drink **C** (ref. **3**, fig. 17).

Pressing the "DOWN" key moves the display to the next item.

**BEVERAGE C**  
**COFFEE: 050**

It represents the quantity of ground coffee used in the drink **C** (ref. **3**, fig. 17).

Pressing the "DOWN" key moves the display to the next item.

#### Fourth main item of the programming menu

#### SALES MANAGEMENT

Press "ENTER" to access the item functions.

#### PRICE VALUES

This function allows the setting a value for each price.

Steps and ranges are pre-set.

Press "ENTER" to access the display of the price values.

**PRICE VALUES**  
**PRICE 01: 00000**

**PRICE VALUES**  
**PRICE 02: 00000**

**PRICE VALUES**  
**PRICE 03: 00000**

**PRICE VALUES**  
**PRICE 04: 00000**

This level displays in sequence prices and their values.

Press "ENTER" to access the change of the single values.

**PRICE VALUES**  
**PRICE 01: 00000**

The second line of the display shows the currently assigned value (e.g. 200) beside the item "PRICE 01:00200".

to scroll the values, and eventually change them, follow the proce-

dure described in chapter "7.5 Changing and saving parameters".

Use the "UP" and "DOWN" keys to move to a further "PRICE...:..." item.

Repeat the operation sequence for each price whose value is to be modified.

#### BEVERAGE PRICES

This function allows the Association of each drink with one of the prices previously set in "BEVERAGE PRICES".

Press "ENTER" to access item display.

**BEVERAGE PRICES**  
**1- 0000 :abcde**

**BEVERAGE PRICES**  
**2- 0000 :abcde**

**BEVERAGE PRICES**  
**3- 0000 :abcde**

**BEVERAGE PRICES**  
**4- 0000 :abcde**

This level displays in sequence the Price/Drink associations set for each single item.

#### Important

*In model D.A. 3P the second line of the display only shows the letters abc, because the price has to be associated with only three drinks.*

Press "ENTER" to change the Drink/Price associations.

**BEVERAGE PRICES**  
**1- 0200 :abcde**

The second line of the display shows a first group of digits "1- 0200..." that cannot be changed in this function because they're the previously set prices.

The second group of digits "...:abcde" shows the dispensable drinks, model D.A. 5P dispensing keys **A - B - C - D - E** (ref. **3**, fig. 17), model D.A. 3P dispensing keys **A - B - C** (ref. **3**, fig. 17), which can be associated with prices.

**N.B:** *LOWER CASE LETTERS indicate that the drink IS NOT associated with the displayed price, while UPPER CASE LETTERS indicate that the drink IS associated with the displayed price.*

- Use the "UP" and "DOWN" keys to scroll all the available price values.
- Press "ENTER" to change the Price/ Drink association  
The flashing cursor appears under the first letter.  
If the displayed price is to be associated with one of the five possible drinks, the chosen letter should be transformed from lower to upper case by using the "UP" and "DOWN" keys.
- Press "ENTER" to store to memory.  
The cursor automatically moves to the second letter.
- Follow the same procedure to set the remaining letters.
- Use the "UP" and "DOWN" keys to move to a further "BEVERAGE PRICES" item.

To exit the function press the **D** (ref. **3**, fig. 6).

## Fifth main item of the programming menu

### TIME MANAGEMENT

It may be displayed as an addition to the four main items by inserting the clock module device.

Press "ENTER" to access the change of the single functions.

Press "ENTER" to access the item functions.

### FREE VEND

This function allows the setting of when and how to dispense drinks for free.

Press "ENTER" to access the display of the methods with which free dispensing is performed.

### FREE VEND ALWAYS

### FREE VEND TIME RANGE

This level visualizes in sequence when and how drink dispensing is free.

Press "ENTER" to access the change to the single items.

### FREE VEND ALWAYS

The second line of the display shows the currently assigned parameter.

- Press "ENTER" to change it.  
A flashing cursor appears on the left.
- Use the "UP" and "DOWN" keys to vary the parameter choice among the three available ones ("ALWAYS", "NEVER" and "TIME RANGE").
- Press ENTER to store the choice to memory.

Confirmation automatically displays the previous level.

Use the "UP" and "DOWN" keys to move to the change of the next item.

### FREE VEND TIME RANGE

By choosing this option ("TIME RANGE") two time intervals are available during which drinks may be dispensed for free. For each one of them it's necessary to enter the starting time (ON1 - OFF1) and the ending time (ON2 - OFF2).

Press "ENTER" to access the setting of the free dispensing periods.

|           |       |
|-----------|-------|
| FREE VEND | ON1   |
| mtwtfss   | 00:00 |

|           |       |
|-----------|-------|
| FREE VEND | OFF1  |
| mtwtfss   | 00:00 |

|           |       |
|-----------|-------|
| FREE VEND | ON2   |
| mtwtfss   | 00:00 |

|           |       |
|-----------|-------|
| FREE VEND | OFF2  |
| mtwtfss   | 00:00 |

The modifiable parameter is on the second line of the display.

To set the two free dispensing periods, it's necessary to:

- Press "ENTER".
- A flashing cursor appears under the letters identifying the week days, and by pressing the "UP" and "DOWN" keys the character changes from upper to lower case.

**N.B.:** "Upper case character" = enabled day; "lower case character" = disabled day.

- Press "ENTER" to store to memory.  
The cursor automatically moves to the following letter.
- Follow the same procedure to set the remaining letters.
- Press "ENTER" to confirm the new value.  
Shutdown time is asked automatically (OFF1).

Repeat the operation sequence for each time interval whose value is to be modified.

Once the last value has been selected and confirmed with "ENTER", start up and shutdown time are asked for the second band (ON2-OFF2). In case nothing is to be changed press the **D** key, the fourth from the top in the model D.A. 5P (ref. **3**, fig. 17).

After having confirmed OFF2, exit from the menu is automatic.

In model D.A. 3P to exit from the function it's necessary to scroll in a sequence the settable time bands by means of the "UP" and "DOWN" keys.

### ON/OFF TIME YES

This function allows the setting of the vending machine automatic start up and shutdown time within a period of one week.

Press "ENTER" to set this option.

### ON/OFF TIME ->Y<- N

To set this option follow the procedure described in chapter "7.5 Changing and saving parameters".

|         |       |
|---------|-------|
| TIME    | ON1   |
| mtwtfss | 00:00 |

|         |       |
|---------|-------|
| TIME    | OFF1  |
| mtwtfss | 00:00 |

|         |       |
|---------|-------|
| TIME    | ON2   |
| mtwtfss | 00:00 |

|         |       |
|---------|-------|
| TIME    | OFF2  |
| mtwtfss | 00:00 |

If "YES" is selected, two start up and shutdown time bands (ON1 - OFF1, ON2 - OFF2) are required.

To program days and times follow the procedure as per the "FREE VEND - TIME RANGE" item.

### DISCOUNT 0000

This function allows the setting of a discount on the drink price, to be applied in the course of the week in two different time bands.

To set this option follow the procedure described in chapter "7.5 Changing and saving parameters".

### Important

*the discount is settable with values varying from 10 to the lowest drink price, with 10-by-ten steps.*

- The application of a discount automatically causes the opening of a following level.

|                 |              |
|-----------------|--------------|
| <b>DISCOUNT</b> | <b>ON1</b>   |
| <b>mtwtfss</b>  | <b>00:00</b> |

|                 |              |
|-----------------|--------------|
| <b>DISCOUNT</b> | <b>OFF1</b>  |
| <b>mtwtfss</b>  | <b>00:00</b> |

|                 |              |
|-----------------|--------------|
| <b>DISCOUNT</b> | <b>ON2</b>   |
| <b>mtwtfss</b>  | <b>00:00</b> |

|                 |              |
|-----------------|--------------|
| <b>DISCOUNT</b> | <b>OFF2</b>  |
| <b>mtwtfss</b>  | <b>00:00</b> |

From this level it's possible to set two time bands (ON1/ OFF1, ON2/OFF2), which determine the times in which the discount should be applied.

To program days and times follow the procedure as per the "FREE VEND – TIME RANGE" item.

|                 |
|-----------------|
| <b>INCREASE</b> |
| <b>0000</b>     |

This function allows the setting of a rise on the drink price, to be applied within one week in two different time bands.

The lower line shows the increase to be applied.

To set this option follow the procedure described in chapter "7.5 Changing and saving parameters".

#### Important

*Discounts are settable with values varying from 10 to the lowest drink price, with 10-by-10 steps*

Applying a price rise automatically causes the opening of a following level.

|                 |              |
|-----------------|--------------|
| <b>INCREASE</b> | <b>ON1</b>   |
| <b>mtwtfss</b>  | <b>00:00</b> |

|                 |              |
|-----------------|--------------|
| <b>INCREASE</b> | <b>OFF1</b>  |
| <b>mtwtfss</b>  | <b>00:00</b> |

|                 |              |
|-----------------|--------------|
| <b>INCREASE</b> | <b>ON2</b>   |
| <b>mtwtfss</b>  | <b>00:00</b> |

|                 |              |
|-----------------|--------------|
| <b>INCREASE</b> | <b>OFF2</b>  |
| <b>mtwtfss</b>  | <b>00:00</b> |

From this level it's possible to set two time bands (ON1/ OFF1, ON2/OFF2), which determine the times in which the price rises should be applied.

To program days and times follow the procedure as per the "FREE VEND – TIME RANGE" item.

|                     |
|---------------------|
| <b>RINSING TIME</b> |
| <b>YES</b>          |

This function allows the setting of two time bands within a week, during which the machine performs automatic mixer cleaning in sequence.

Press "ENTER" to set this option.

|                      |
|----------------------|
| <b>RINSING TIME</b>  |
| <b>-&gt;Y&lt;- N</b> |

To set this option follow the procedure described in chapter "7.5 Changing and saving parameters".

|                |              |
|----------------|--------------|
| <b>RINSING</b> | <b>ON1</b>   |
| <b>mtwtfss</b> | <b>00:00</b> |

|                |              |
|----------------|--------------|
| <b>RINSING</b> | <b>OFF1</b>  |
| <b>mtwtfss</b> | <b>00:00</b> |

|                |              |
|----------------|--------------|
| <b>RINSING</b> | <b>ON2</b>   |
| <b>mtwtfss</b> | <b>00:00</b> |

|                |              |
|----------------|--------------|
| <b>RINSING</b> | <b>OFF2</b>  |
| <b>mtwtfss</b> | <b>00:00</b> |

If "YES" is selected, two start up and shutdown time bands (ON1/ OFF1, ON2/OFF2) are required.

To program days and times follow the procedure as per the "FREE VEND –TIME RANGE" item.

Once the parameters have been set and confirmed, it's necessary to exit the programming function.

|                    |
|--------------------|
| <b>EXIT</b>        |
| <b>PROGRAM Y/N</b> |

This function allows the exit from the programming function at any time.

It's on the same level of the five main menu items, and its visualization requires to:

- Press the **D** key, the fourth from top on model D.A. 5P (ref. **3**, fig. 6) until the items from the first level are displayed. One of the five main menu items appears. In model D.A. 3P scroll the settings first and then the functions with the "UP" and "DOWN" keys, until one of the five main programming menu items appears.
- Use the "UP" and "DOWN" keys to scroll them and display the function to exit programming.
- Press "ENTER".  
A cursor flashes under the letter ".../N".
- If it is not desired to exit programming it's necessary to press the "ENTER" key. The same item will be displayed but without the flashing cursor, and it will be possible to scroll 1<sup>st</sup> level functions.  
If instead the intention is to exit, it's necessary to use the "UP" and "DOWN" keys to get the cursor to appear under the letter "...Y...", then press "ENTER".

The display will show the text set in function "TEXT STAND-BY".

#### Important

*The vending machine keeps the programmed parameters in memory even during power failure.*

## 8 - USE OF THE VENDING MACHINE

### Important

Before using the vending machine it's necessary to carefully read this publication and acquire a good general knowledge of the vending machine.

After a period of inactivity of the vending machine it is advisable to read chapter "8.6 First start of the Vending machine" before re-using it.

### 8.1 Machine statuses

Depending on electric mains supply, the vending machine may be in one of the following statuses:

#### Off and electrically isolated

- Main switch (ref. **25**, fig. 1) in the "O" position.
- Only the programmed data maintenance memory is active.

#### On

- Main switch (ref. **25**, fig. 1) in the "I" position.
- All the functions are active and the display (ref. **1**, fig. 1) is on.

#### Standby (vending machine off, but not electrically isolated)

- Main switch (ref. **25**, fig. 1) in the "I" position.
- The "ON/OFF TIME" function is set on "YES".
- The display and the programmed data maintenance memory are active.

### 8.2 Manual start

This type of start up is required when the vending machine is in the "Off and electrically isolated" status. (see 8.1 Machine statuses). Follow the procedure described in "8.6 First start of the vending machine", eventually leaving out the control of the dispensed drink.

### 8.3 Programmed automatic start

This is possible when the vending machine is on "STANDBY" and the "ON/OFF TIME" function is active and set. Vending machine start up occurs at the programmed time.

### 8.4 Drink dispensing

- Choose a drink among the ones available and identify the corresponding price.
- Insert coins (or tokens) in the special slot (ref. **4**, fig. 1) until the display (ref. **1**, fig. 1) visualizes the required amount.

#### Warning

It's impossible to insert coins once the amount equalling the maximum vending price has been reached.

- Extract a cup and place it in the dispensing slot (ref. **9**, fig. 1). The display indicates "SELECT BEVERAGE" (select drink).

#### Warning

If a button is pressed corresponding to a drink having a higher price than the one inserted, it's necessary to insert more coins and press the chosen button once again.

The display indicates for a moment "INSERT COIN" (insert token)

- Press the button corresponding to the chosen drink.

#### Warning

In order to avoid scalds, wait for the dispensing end signal (red light turning off) before inserting your hand in the dispensing slot.

### 8.5 First start of the Vending machine

Once the drinks dispensed by the vending machine have been determined (see "7 - Programming"), get the products to be inserted in the containers (coffee, soluble products, etc.).

#### Important

It is indispensable to use only soluble products declared to be "suitable for automatic vending".

#### Tank filling

#### Important

The lyophilized product must compulsorily be poured in its container (ref. **6**, fig. 1).

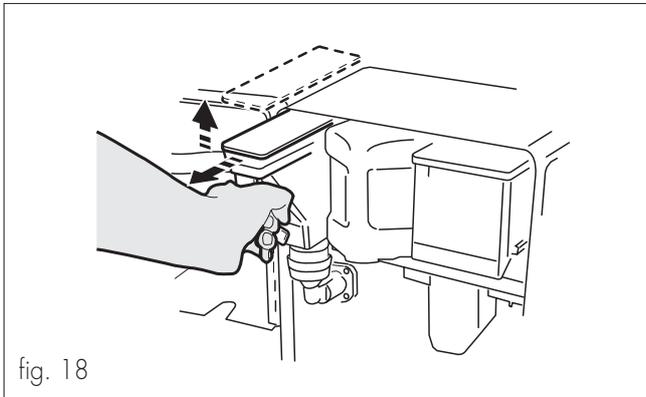
Do not put coffee beans in the soluble product container.

#### Soluble product container (only D.A. 5P)

Proceed in filling the lyophilized product container:

- Extract the container from its seat by slightly lifting it to make its extraction easier.

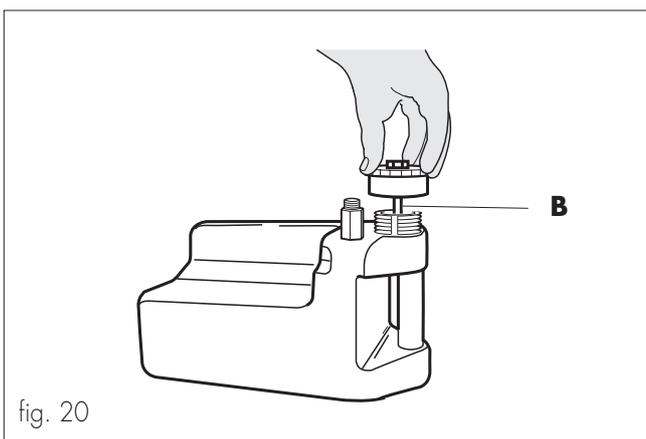
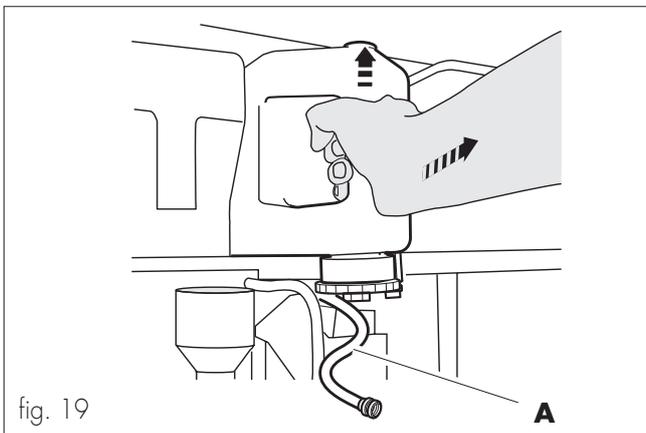
- Insert the soluble product without exceeding 2/3 of maximum capacity.
- Close the cover and completely reinsert the container in its seat.



### Water tank

Proceed in filling the water tank (except for the versions with direct waterworks connection).

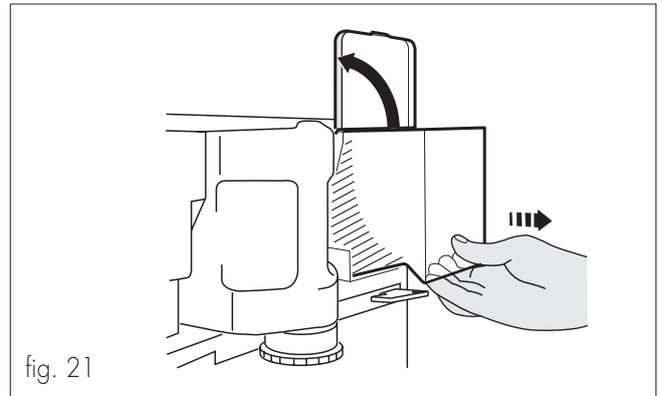
- Disconnect the tube (ref. **A**, fig. 19) from the tank by acting on the automatic coupling.
- Extract the tank from its seat by slightly lifting the handle (fig. 19).
- Unscrew the ring nut, extract the valve and fill the tank with fresh drinkable water.
- Reinsert the valve in the hole making sure that the aspiration tube (ref. **B**, fig. 20) is inserted inside the tubular handle, and re-screw the ring nut.



### Coffee container

Proceed in filling the coffee bean container:

- Pull the coffee container outward, lift the cover and fill the container with coffee beans (fig. 21).



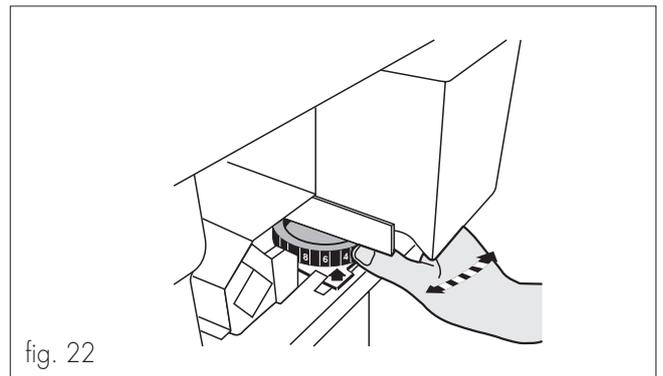
### Grinding adjustment

- Adjust the coffee grinding indicator on one of the following values by turning the knob (fig. 22):
 

|                           |      |
|---------------------------|------|
| Italy.....                | 4-7  |
| Spain.....                | 5-8  |
| France – Switzerland..... | 5-8  |
| Germany – Austria.....    | 6-9  |
| USA - Canada.....         | 6-14 |
- Insert the required token (or coins) in the slot, press the button corresponding to coffee dispensing and check product quality. If coffee is dispensed too slowly, it's necessary to adjust grinding on a higher value; if on the contrary coffee is dispensed too fast, place the indicator on a lower grinding value.

### Warning

Once grinding has been adjusted it's necessary to dispense at least two coffees to notice the difference.



### Operations to be performed on the vending machine

- Enable electric functions (main switch in the "I" position).
- Fill the vending machine water circuit according to the following procedure:
  - Open the door
  - Insert the key (ref. **30**, fig. 23) in the safety micro-switch operation opening (ref. **31**, fig. 23).

**Warning**

This operation is required for vending machine installation and bypasses the safety system provided for in case of door opening. It should therefore be performed by specialized personnel that are conscious of the risks involved in working on live devices.

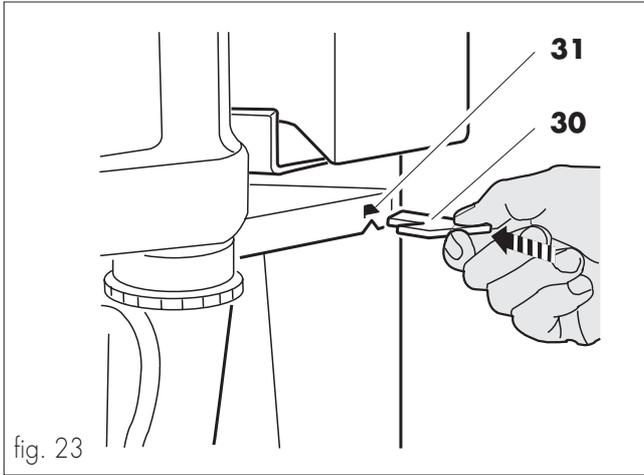


fig. 23

- Keep the button pressed (ref. 26, fig. 1) until a steady water jet is coming out of the dispensing tube (ref. 18, fig. 1).
- Remove the micro-switch bypassing key.(ref. 30, fig. 23).
- Close the door.
- Wait for the flashing red light to go off. If the red light stays on and the display indicates "PLEASE WAIT", this means that the machine didn't reach the proper temperature.
- Read the vending machine dialogue message on the display (ref. 1, fig. 1) and perform the possibly indicated operations.
- Wait for the display to indicate "INSERT COIN".
- Place the cup in the dispensing slot.

**Important**

Drinks should be dispensed only in open containers (glasses, cups, etc.).

- Insert the credit corresponding to the type of drink.
- Press the corresponding button.

**Important**

The dispensed products should be consumed rapidly, and shouldn't be stored and/or packaged.

- Check proper machine operation by dispensing some drinks.

**Important**

Although all the buttons are originally programmed on standard values, it's necessary to check that the obtained drink has the desired characteristics. In case it hasn't, it's necessary to proceed in programming the dispensing buttons (see "7 - Programming").

**Token/coin box**

Access to the coin box requires (ref. 15, fig. 1):

- Opening the lock (ref. A, fig. 24) with the special key.

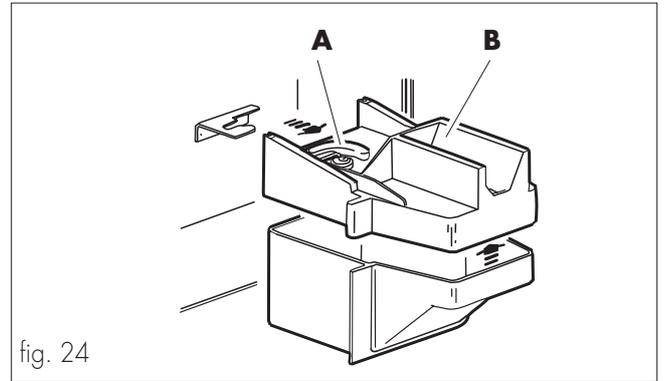


fig. 24

- Extracting.
- Remove the cover (ref. B, fig. 24).
- Empty it from the contained coins/tokens.
- Reinsert it in its seat (fig. 24).

**8.6 Display messages**

Vending machine operation is completely or partially blocked when some products are missing or faulty conditions occur. The display (ref. 1, fig. 1) on the control panel indicates the reasons that caused the possible block, together with the red light (ref. 2, fig. 1) turned on.

| MESSAGE                                   | CAUSE   | CURE  |
|---|---|---|
| <b>OUT OF SERVICE<br/>NO WATER</b>        | Water is not reaching the dispensers.   | This happens when the turbine doesn't turn, and the electronic circuits receive no impulses, for example when the water supply finishes while a product is dispensed, or during filling at start up (the pump doesn't work, or the group is dirty, or the solenoid valve is jammed). Turning the vending machine off and on the signals remain active because malfunctioning is detected once again during filling procedure at start up. The vending machine is blocked in all its functions, including temperature management (heater off): it's necessary to fill up the water tank or check the presence of water in the waterworks, and then to perform the filling procedure with the reset key until a steady water jet doesn't come out. The out-of-service is reset after having pressed the internal button the moment the pump starts in order to perform filling; the user shall take care of continuing the filling procedure until a regular water jet is coming out. If signalling persists after dispensing, call a Service Centre. |
| <b>OUT OF SERVICE<br/>NO COFFEE BEANS</b> | This happens when the grinder motor stays in operation for more than a certain time without closing the dosing switch.        | The vending machine keypad functions are blocked: it's necessary to fill the coffee container and turn the machine off and on. It may also be reset by pressing the internal button. If signalling persists after coffee dispensing, call a Service Centre.   |
| <b>OUT OF SERVICE<br/>EMPTY GROUNDS</b>   | This happens when the coffee grounds tray has reached maximum capacity.   | The vending machine keypad functions are blocked. If the vending machine is turned off and on again the signalling persists. The coffee grounds tray must be emptied (micro-switch off for at least 5 seconds). Eight coffees before reaching the maximum coffee grounds number (0..... 99), the display shows a warning message.   |
| <b>OUT OF SERVICE<br/>NO BREW. UNIT</b>   | The group was not inserted correctly in its seat, or the group presence micro-switch doesn't work.                            | If by turning the vending machine off and on the signalling persists, call a Service Centre. If the group is missing at start up, the vending machine does not perform filling and group reset.   |
| <b>OUT OF SERVICE<br/>STOP BEVERAGE</b>   | The vending machine has reached the programmed number of drinks.  | The vending machine keypad functions are blocked. If the vending machine is turned off and on again the signalling persists. To reset vending machine functions it's necessary to enter programming and use the <b>RESET</b> function in the <b>STOP</b> menu.  |
| <b>OUT OF SERVICE<br/>STOP SOLUB.</b>     | The vending machine has reached the programmed number of soluble product 1 (or soluble product 2 or soluble product 3) vends. | The vending machine keypad functions are blocked. If the vending machine is turned off and on again the signalling persists. To reset vending machine functions see above.  |
| <b>OUT OF SERVICE<br/>STOP WATER</b>      | The vending machine has dispensed the programmed quantity of water.   | The vending machine keypad functions are blocked. To reset vending machine functions see above. If the vending machine is turned off and on again the signalling persists. To perform reset without accessing programming (only in the case of it being out of service, for example for operators that don't know the password) follow this procedure: <ul style="list-style-type: none"> <li>- While pressing the <b>RESET</b> key, press the <b>A</b> key within 3 seconds (ref. <b>3</b>, fig. 6), the LED starts to flash.</li> <li>- Press the <b>C</b> button for a short time (ref. <b>3</b>, fig. 6) to confirm the reset. If the <b>C</b> key is not pressed do (ref. <b>3</b>, fig. 6) within 10 seconds the LED stops flashing and reset is not performed.</li> </ul>  |

| MESSAGE                           | CAUSE   | CURE   |
|-----------------------------------|---|--|
| <b>OUT OF SERVICE STOP COFFEE</b> | The vending machine has reached the programmed number of coffee vends.                                | The vending machine keypad functions are blocked. If the vending machine is turned off and on again the signalling persists. To reset vending machine functions see above.   |
| <b>ATTENTION EMPTY GROUNDS</b>    | Eight coffees before reaching the maximum number of grounds a warning message appears on the display. | The coffee grounds tray must be emptied (micro-switch off for at least 5 seconds), otherwise the vending machine will go out of service after the following eight coffees.   |
| <b>ATTENTION NO DRIP TRAY</b>     | It occurs when the tray presence micro-switch is not closed.  | Make sure that the drip tray is properly inserted in its seat. If signalling persists call a service centre. Each time the drip tray is removed and re-inserted, the group is reset. If a "drip tray missing" condition occurs at start up the vending machine does not perform filling and group reset procedure. |
| <b>ATTENTION NO GROUNDS CONT.</b> | It occurs when the coffee grounds presence micro-switch is not closed.                                | Make sure that the drip tray and the coffee grounds tray are properly inserted in their respective seats. If signalling persists call a service centre. If a "coffee grounds tray missing" condition occurs at start up the vending machine does not perform filling and group reset procedure.                    |
| <b>OUT OF SERVICE ERROR 03 04</b> | Group jammed.   | Call the maintenance technician  |
| <b>OUT OF SERVICE ERROR 05</b>    | Flow rate error   | Call the maintenance technician  |
| <b>ATTENTION ERROR 21</b>         | Programming error   | Call the maintenance technician  |
| <b>OUT OF SERVICE ERROR 15</b>    | Electronic key error  | Call the maintenance technician  |
| <b>OUT OF SERVICE ERROR 14</b>    | Temperature sensor error  | Call the maintenance technician  |
| <b>OUT OF SERVICE ERROR 16</b>    | Data processing error 1 (program)   | Call the maintenance technician  |
| <b>OUT OF SERVICE ERROR 22</b>    | Flash programming error   | Call the maintenance technician  |
| <b>OUT OF SERVICE ERROR 23</b>    | Zero crossing error   | Call the maintenance technician  |
| <b>OUT OF SERVICE ERROR 24</b>    | Data processing error 2   | Call the maintenance technician  |
| <b>OUT OF SERVICE ERROR 25</b>    | Saeco card without time-keeper  | Call the maintenance technician  |

## 9 - MAINTENANCE

### 9.1 Introduction



**Danger**

*Before performing any maintenance and/or cleaning operation, disconnect the vending machine from power supply and wait for it to cool down.*

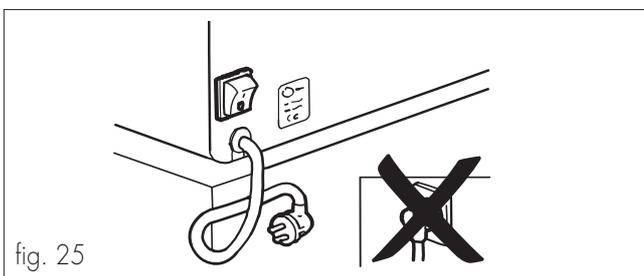


fig. 25

To achieve the best possible quality of the dispensed drinks and ensure the best possible operation of the vending machine it's necessary to follow the indications contained in this booklet.

- The non removable components and the machine itself should be cleaned only with cold or lukewarm water using non-abrasive sponges and dampened cloths, unless differently specified.
- Do not use direct water jets.
- All the parts to be cleaned are easily accessible and do not require the use of tools.
- Regular maintenance and cleaning preserve the machine and maintain its efficiency for a longer period, besides granting respect of the normal hygienic standards.
- The impulse counters on the vending machine count the number of performed vends and allow ordinary maintenance intervention programming on the side of the maintenance technician.

**Danger**

In case of operating defects, typically marked out on the display, immediately turn the machine off, interrupt power supply either by means of the omni-pole switch or by disconnecting the plug, and call the nearest SERVICE CENTRE.

## 9.2 Cleaning and maintenance

- Maintenance operations should be performed at least once a year and include checking vending machine integrity and the compliance of the installations with the existing norms.

It is absolutely forbidden to perform cleaning or maintenance operations with the micro-switch operation key (ref. 17, fig. 1) inserted (fig. 26).

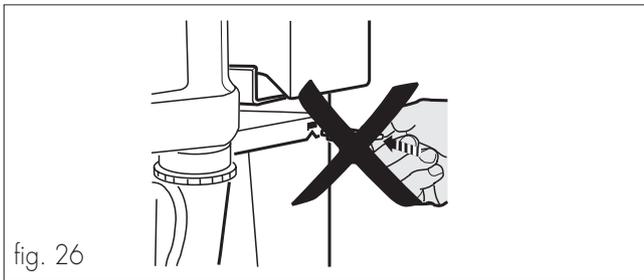


fig. 26

### Warning

All vending machine elements should be washed only with lukewarm water, without using any kind of soap or solvent that could modify its shape or functionality (fig. 27).

### Warning

Do not wash in dishwasher (fig. 27).

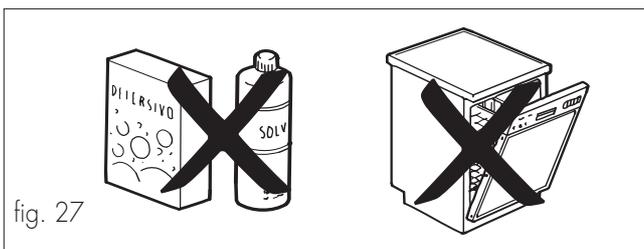


fig. 27

### Coffee unit

- Remove the drip tray and extract the hot water dispensing tube nozzle from its seat in the drink dispenser (fig. 28).

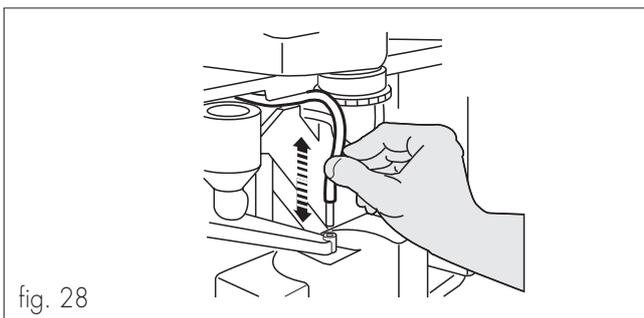


fig. 28

- Move the hooking lever in position 3 and extract the coffee unit by slightly rotating it on the connecting coupling with the milk mixer (fig. 29). Wash it completely in lukewarm water, dry it and reinsert it in its seat holding the lever in position 3.

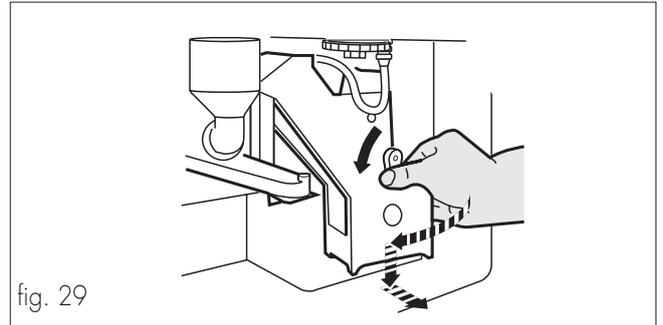


fig. 29

**N.B.:** To avoid improper connection of the coffee unit with the milk mixer, it is advisable to completely insert the connecting coupling and then hook the unit to the main plate by means of a slight rotation.

### Warning

While inserting the unit make sure that the reference arrows coincide. If this doesn't happen, align them by means of the special wrench (fig. 30).

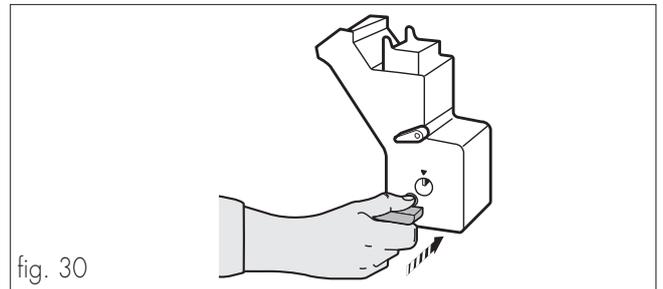


fig. 30

- Reinsert the hot water tube nozzle in its seat on the drink dispenser (fig. 28).

### Mixer and dispenser (only D.A. 5P)

- Remove the powder funnel together with the funnel cover, making sure not to damage the gaskets at both ends. Separate them from the underlying part extracting also the nozzle with silicon tube (fig. 31).
- Now rotate the mixing chamber clockwise and extract it.
- Clean the mix fan with a sponge saturated with lukewarm water, without exerting excessive pressure in order to avoid jeopardising the sealing gasket's positioning.
- Abundantly wash in lukewarm water all the components and refit them by performing the above mentioned operations in reverse order. Especially take care of the proper insertion of the nozzle with silicon tube.

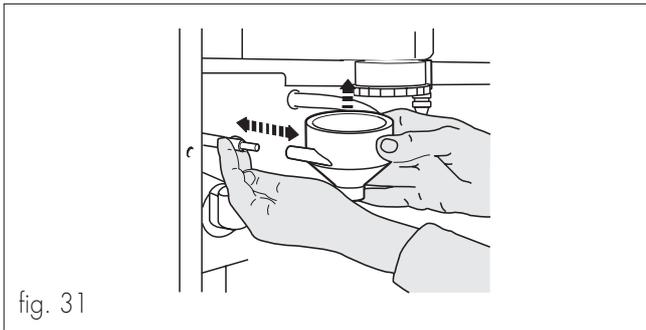


fig. 31

**Soluble powder container**

- Extract the container from its seat by slightly lifting it to make its extraction easier (fig. 32). The soluble powder container doesn't require special maintenance. Nevertheless, it should be cleaned at least on a monthly basis, making sure that it's perfectly dried when filled. The container may be separated from the back bushing by rotating the latter clockwise, allowing back pin and spring extraction. The front silicon bushing can be unfitted by removing the special fixing spring. Clean everything with a dry cloth or compressed air, then refit performing all operations in reverse order, making sure that the sealing ring of the back pin is perfectly intact.

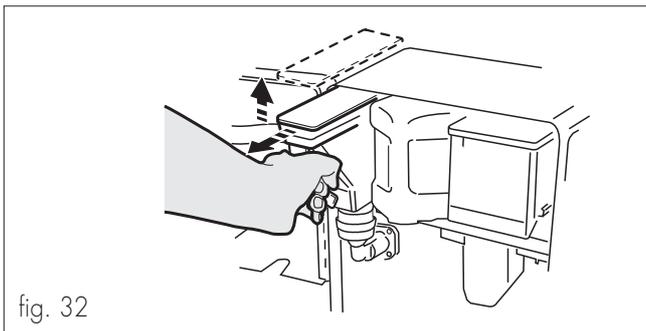


fig. 32

**Water tank**

The water tank should be emptied and cleaned every time it is filled.

**Dispensing slot area**

Unfit the dispensing slot by simply extracting it from its seat. Separate it from the grill, the tray and the drip tray and wash everything with lukewarm water (fig. 33).

**Important**

*The manufacture disclaims all responsibilities for possible malfunctioning caused by improper or scarce maintenance.*

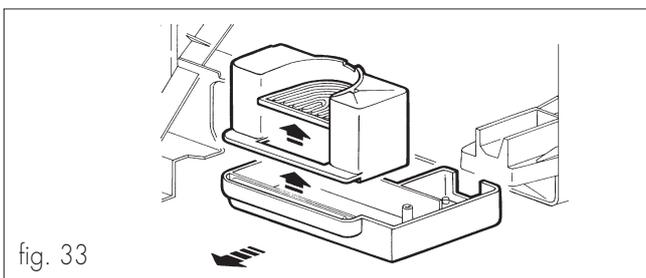


fig. 33

**9.3 Mix fan replacement**

Remove the old fan, insert the new one in the special tang, rest the wrench on the fan flanging and then press in the axial direction until the wrench is in contact with the motor bearing surface (fig. 34). For further specific instructions, refer to the special maintenance manual.



fig. 34

**10 - VENDING MACHINE SCRAPPING**

The disposal of the wastes coming from vending machine scrapping should be performed while respecting the environment, avoiding ground, water and air pollution.

In any case local existing laws ruling the matter shall be complied with. Make the vending machine unserviceable by disconnecting the plug from the outlet and cutting the electric cable. Deliver the unserviceable vending machine to a suitable disposal centre.

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**11 - VARIATIONS**

**11.1 Model D.A. 3P/5P (without clock module)**

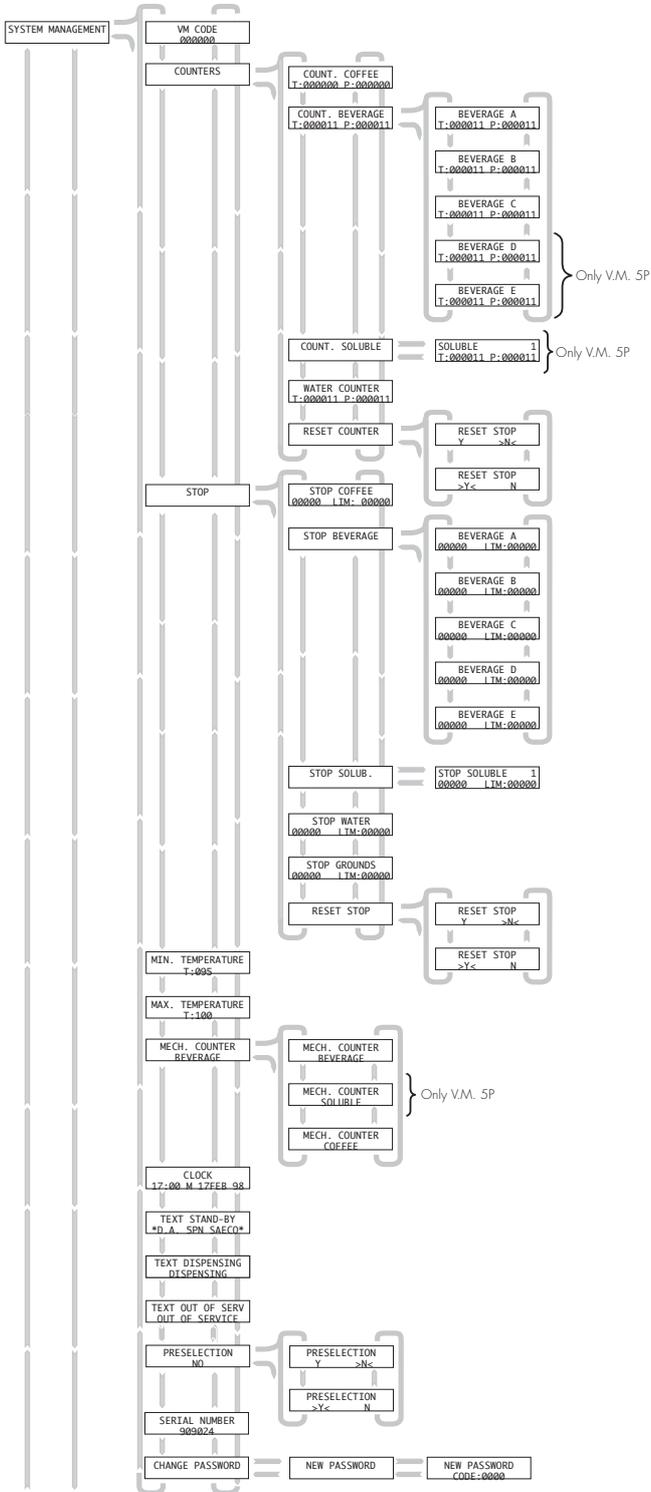
The vending machine model 3/5P without the clock module is used in the same way, has the same intended use and components of the more complete model.

The only difference is in the management of the fifth main menu item (see "11.2 Programming structure" (3/5P model without clock module)); actually, in this model the fifth item "FREE VEND..." manages two choice options "NEVER" and "ALWAYS" (In the version with clock module this item is integrated in "TIME MANAGEMENT").

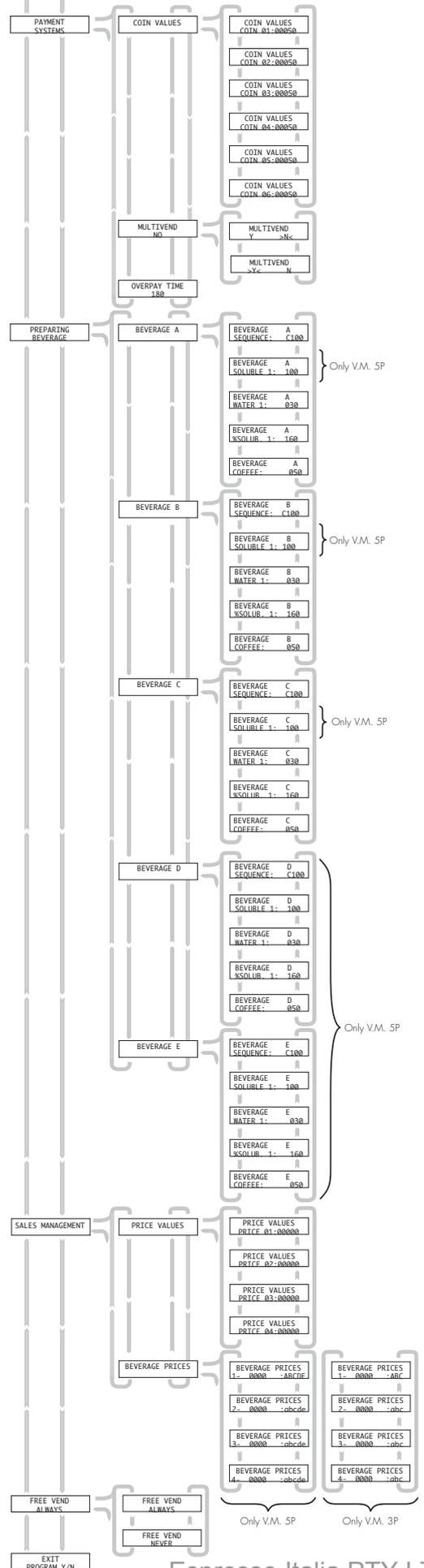
# 11.2 Programming structure (D.A. 3P standard version and D.A. 5P standard without clock module)

## Part 2

### Part 1



Continues



End





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