AZKOYEN

USER MANUAL

VITALE "S" COFFEE MACHINE

MANUAL REFERENCE: 81037070; EDITION 09-2017

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WARNINGS

General

- READ THIS MANUAL CAREFULLY BEFORE USING THE DISTRIBUTOR.
- This distributor has been designed and built in accordance with current safety standards.
- AZKOYEN guarantees that these machines comply with the following directives:
  - EC low voltage directive DBT 2006/95/CEE and modifications.
  - EC electromagnetic compatibility directive EMC 2004/108/CEE and modifications.
- These machines are designed for INDOOR USE ONLY.
- They must not be fitted at locations in which they may be exposed to water jets and must not be cleaned by this method.
- This document contains information which is private property and is protected by laws on intellectual property. All rights reserved. The photocopying, reproduction and translation into any language of any part of this document is not permitted without the prior written consent of AZKOYEN.
- AZKOYEN accepts absolutely no responsibility for damage caused to persons or property as a result of:
  - Incorrect installation
  - Unsuitable electric and/or hydraulic installation
  - Incorrect cleaning or maintenance
  - Incorrect use of the machine
  - The use of non-original replacement parts and unauthorised modifications
- AZKOYEN reserves the right to apply improvements arising as a result of its constant research to the present model without prior notice.
- This manual is an integral part of the machine and, as such, must always be kept inside it so that it may be consulted at any time.
- This appliance is not designed to be used by persons (including children) with reduced physical, sensory or mental capabilities, lack of experience or knowledge, unless they are supervised or have been instructed in its use by somebody responsible for their safety. Children should be supervised to ensure that they do not play with the appliance. Section 7.12 of EN60335

Maintenance

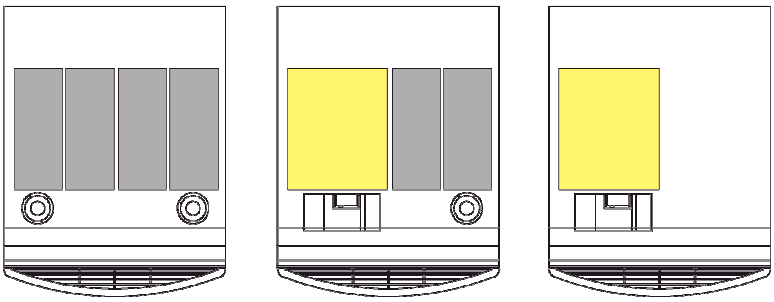
- The user or the person responsible for reloading and cleaning the appliance must follow the instructions indicated in this manual.
- When reloading, only use ready-prepared products specific to this type of machine. Do not touch the product with your hands and prevent liquid from falling inside the product hoppers.
- The components do not require tools for dismantling and must only be handled by qualified technical staff.
- Prevent water from freezing inside the machine. Empty the boiler when maintenance work is to be performed or when the machine is going to be disconnected for a long period of time.
- Given the characteristics of some food products, these may lead to incorrect operation of the machine if used beyond the parameters of temperature and relative humidity recommended in this manual.
- If it is necessary to move the machine avoid:
  - Tipping the machine
  - Dragging or lifting it with some kind of pulling system (rope, straps, etc.).
  - Shaking or striking the machine, no matter whether it is in protective wrapping or not.
- The machine must be installed at locations which comply with the recommendations of temperature, electricity and water installation, weights, etc. given in this manual and must be performed by qualified personnel..

Electrical

- THE MACHINE INCLUDES DANGEROUS HIGH-VOLTAGE COMPONENTS. DO NOT DISCONNECT ANY COMPONENT. ONLY THE TECHNICAL SERVICE IS AUTHORISED TO DO SO. THE POWER CABLE MAY ONLY BE REPLACED BY TECHNICAL STAFF AUTHORISED BY AZKOYEN.
- Make sure that the electrical installation, socket and automatic switch are appropriately dimensioned for machine consumption.
- The machine plug (1, Fig. 3) is equipped with earth. The base must be connected to a good earth and must be located so as to be accessible when the machine is installed.

CHAPTER 1. GENERAL CHARACTERISTICS

1.1.- Description of the machine.



The machines on the VITALE range are TABLETOP coffee and soluble beverage machines especially designed for use in areas with medium coffee consumption, such as waiting rooms, medium-sized offices, etc.

There are three machine configuration options:

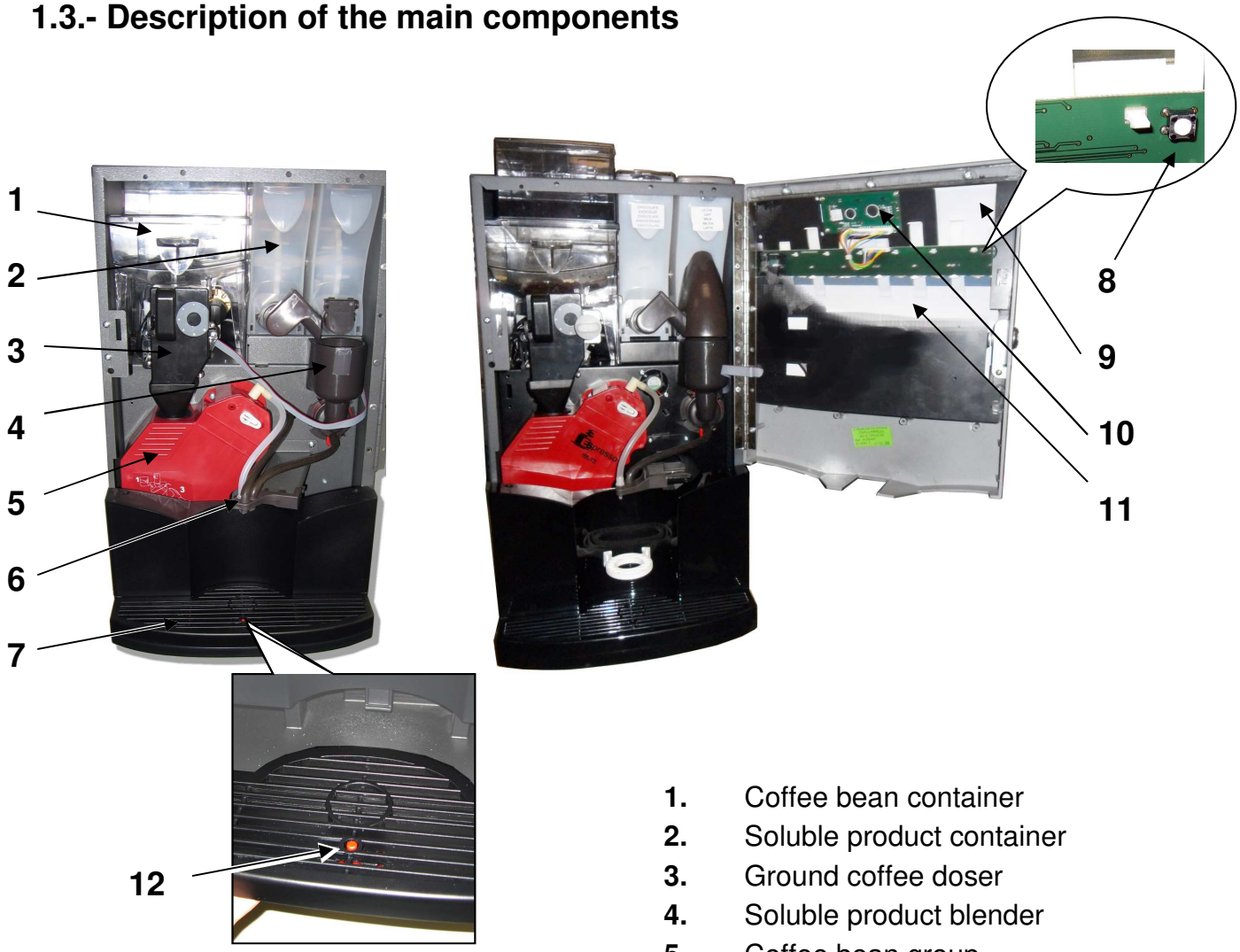
Instant, only with soluble products

Espresso + 2 (Mixed), with two soluble product containers and coffee-bean system.

Espresso, fitted with a system to make espresso coffee from coffee beans

	Instant	Espresso+2	Espresso
No. of selections	7	7	3
Product			
No. bean containers	0	1	1
No. soluble product containers	4	2	0
Bean container capacity (l.)	-	3,1 l	
Soluble product container capacity (l)	1,6 l		-
Coffee bean container capacity (kg)	-	1,1	1,1
Milk container capacity (kg)	0,6	0,6	-
Chocolate container capacity (kg)	0,8	0,8	-
Soluble coffee container capacity (kg)	0,4	-	-
Soluble decaf. coffee container capacity (kg)	0,4	-	-
Dimensions			
Height	560	590	
Width	305		
Depth	410		
Weight (kg)	20.7	27.2	25.3
Electrical characteristics			
Voltage	according to the characteristics plate (+6V/-10V)		
Maximum Power consumption (W)	< 1500W		
Water supply			
Types of supply	Mains or incorporated tank		
Minimum input pressure	min 0,098 Mpa.; Max. 0,98 Mpa		
Diameter of the stopcock (to connect the mains hose)	¾" M		
Water tank capacity (l)	4		
Other Characteristics			
Maximum work gradient	2º (on any axis)		
Sound level	<80 dB(A)		
Optimum exterior environment temperature	> 1ºC - <40ºC; <95% Rel. hum.		

1.3.- Description of the main components



1. Coffee bean container
2. Soluble product container
3. Ground coffee doser
4. Soluble product blender
5. Coffee bean group
6. Rubber threshold
7. Drip tray
8. Programming button
9. Upper photo
10. Display
11. Lower photo
12. Tray full level
13. Water tank

CHAPTER 2. INSTALLATION AND STARTING-UP

2.1.- Choice of location for the machine

The machine must be placed on a unit or support so that it is stable and cannot be accidentally knocked over. The support must be well secured to the wall.

THE INSTALLATION OPERATIONS REQUIRED FOR THE INITIAL START-UP OF THESE MACHINES MUST BE PERFORMED BY QUALIFIED TECHNICAL STAFF.

2.2. - Electrical installation

The voltage of the electrical system must comply with the voltage indicated on the characteristics plate on the back of the machine and must not exceed the limits set in the country of use.

Maximum power consumption is indicated on the machine characteristics plate.

2.3. - Water supply

If your machine is fitted with mains service, then prepare a water supply where the machine is to be fitted in accordance with the indications in the general characteristics table. The distance between this water supply and any electric socket base must be at least 1 m. Observe European directives.

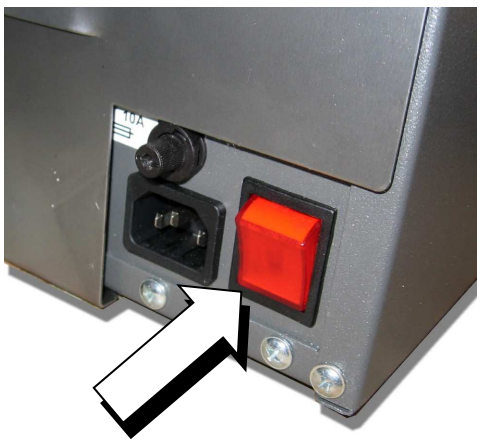
If your machine is fitted with a water tank, remove it from the side of the machine for filling.

When connecting the machine starts filling the water circuit. Do not remove the container until the operation is complete.

2.4. - Start-up

Once the tank has been filled or the water hose has been connected to the mains and current fed to the socket, close the door: The machine will be ready for use in a few minutes.

Press the switch on the back of the machine.



2.5. - Load level labels of the hoppers

Some of the soluble products may require shorter reloading cycles in order to prevent its expiry, or the loss of properties. The machine incorporates "top-level labels" as an additional provision. These will inform the person responsible for the loading the product what is the maximum level of each hopper.

The image shows the maximum height they are to be placed on all the hoppers.

CHAPTER 3. DESCRIPTION OF THE MACHINE

3.1.- Soluble product hoppers

The Instant and Mixed machines have 2 or more soluble product containers.

These containers extract the product via a spindle to the Blender, where it is mixed with water sent from the boiler.

Each hopper must always be loaded with the same type of product because the serving configuration activates the hopper programmed for each case.

e.g. do not load the coffee hopper with a different product because the machine will use it for servings programmed with coffee.

3.2. - Initial loading of soluble product.

Lift the lid of the hopper to be loaded and load the product. Make sure that the product loaded is the right product for the hopper (each hopper has a label indicating the product to load).

When the product has been loaded, close the lid and proceed to load the next hopper.

3.3 – Loading coffee beans

Lift the hopper lid and pour in the contents of the packet of coffee to the desired level.

3.4. - Initial loading of water

All the machines automatically fill the boiler when the machine is started up.

BEFORE CONNECTING THE MACHINE, MAKE SURE THAT THERE IS WATER AVAILABLE TO FILL THE BOILER (check the mains hose connection or make sure that the water tank is full)

3.5.- Bean coffee group (Espresso Machines)

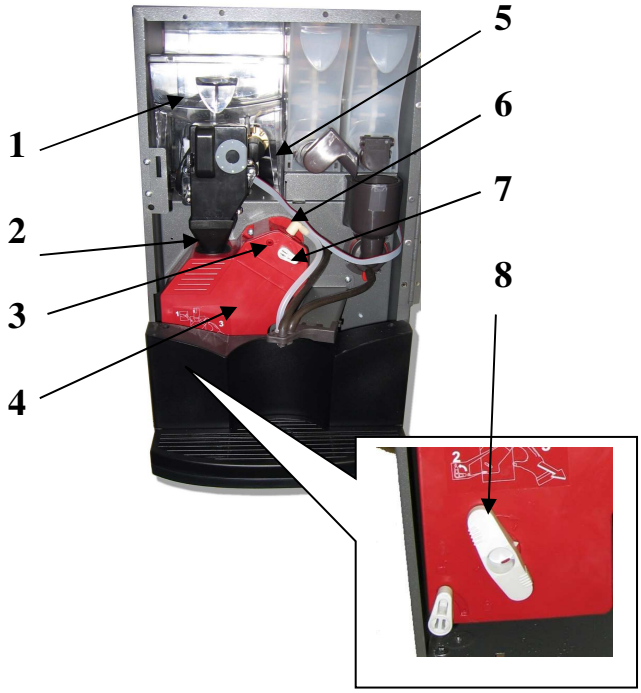
The coffee beans are stored in the grinder hopper. When a serving is requested, the brewing group moves to the loading position and the grinder grinds the amount of coffee programmed, sending it to the doser, where the coffee is dosed and then falls to the brewing piston.

The group then advances to the brewing position and the piston tamps the coffee.

The pump injects the programmed water into the group for the pre-set length of time. The result of this operation is the Espresso coffee which pours into the cup.

Fig. 3

1 Hopper
2 Doser
3 Upper piston
4 Lower group
5 Grinder adjustment lever
6 Water input hose
7 Group anchoring lever
8 Group positioning crank



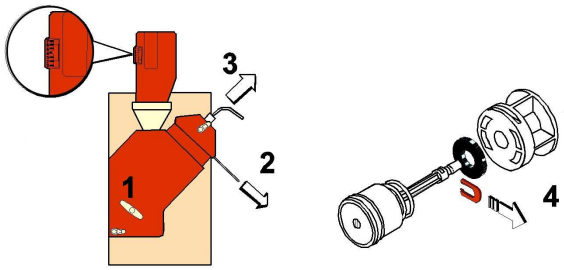
3.6.- Dismantling the coffee bean group

Turn the group positioning crank to its stand-by (rest) position.

If you wish to **dismantle the entire lower group**, dismantle the group water input hose and then turn the group securing levers and extract the group by pulling it out.

To extract the brewing piston,

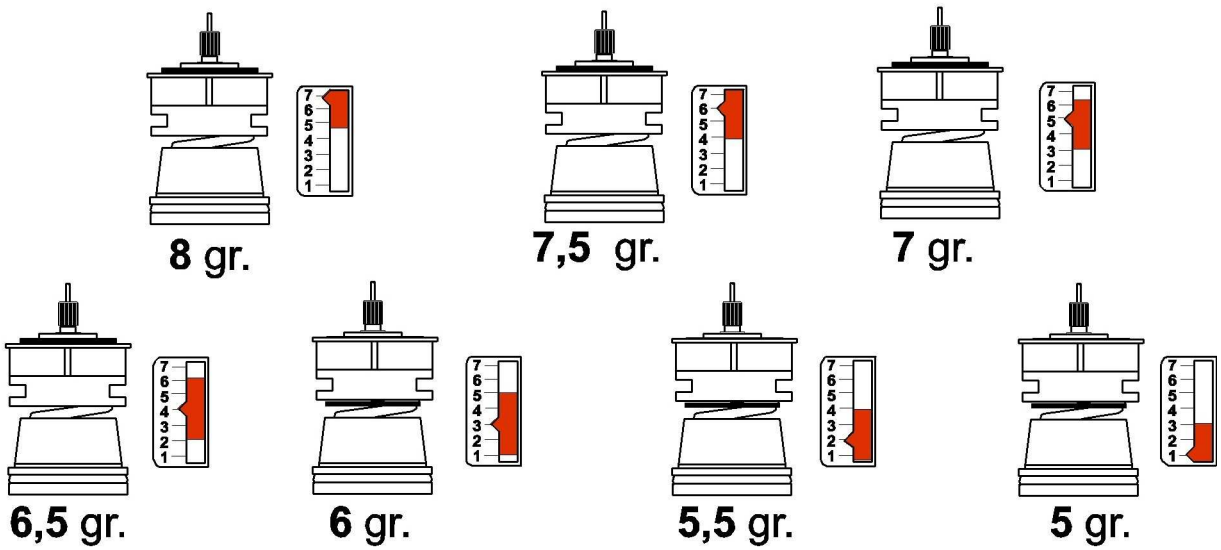
1. Set the group to stand-by position by entering programming and pressing button 6 (see programming).
2. Remove the securing pin.
3. Pull the piston upwards.
4. If you wish to dismantle the piston completely, remove the securing clip.



3.7.- Settings and adjustments

Adjusting the coffee dose. The brewing piston on the group has a washer with which it is possible to increase or decrease the capacity of the brewing cylinder and thereby adjust the amount of ground coffee it can contain. The quantity can vary between 5g and 8g. The doser also needs to be adjusted so as to send the right amount to the cylinder.

The following diagram indicates the position of the washer and the doser lever to set the desired amount.



The dose is factory set to 6.5 g of ground coffee (100 % natural coffee)

Coffee grinding point adjustment. The grinder leaves the factory set to the optimum grinding position. If you want to grind the coffee finer, then you can move the adjustment lever one or two positions (with the motor running to prevent the teeth from jamming with coffee).

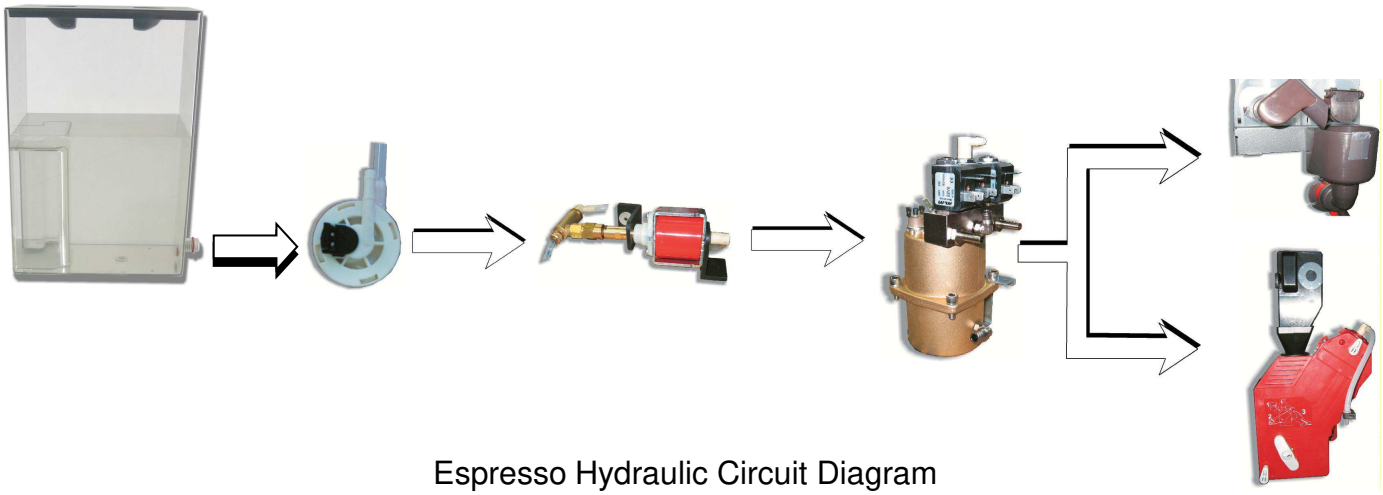
The grinder adjustment lever is at the top of the group. Use it to set the ground coffee grade you wish to use.

A “good coffee” is one which has been brewed at 9 kg/cm^2, which is equivalent to a brewing time of between 15 and 20 sec.

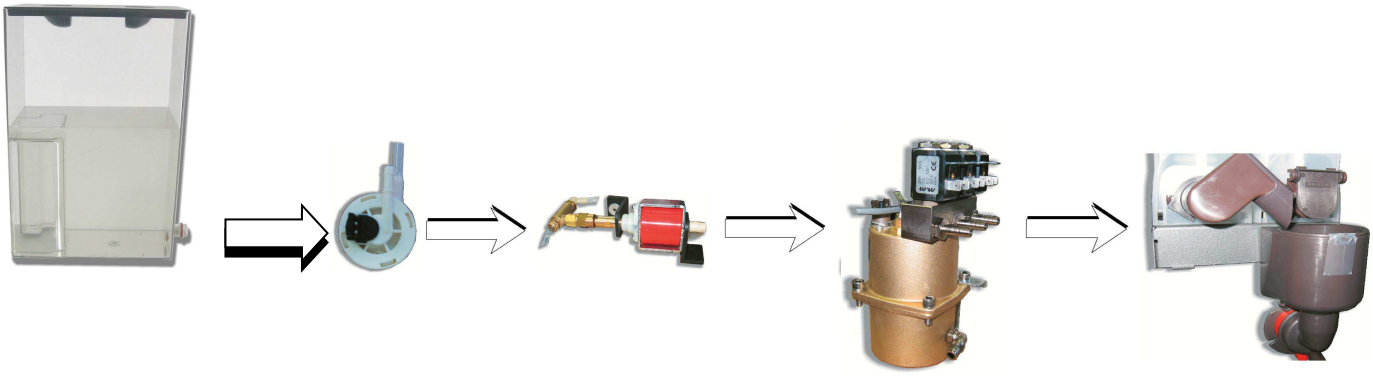
3.8.- Changing product fall in the milk and chocolate hoppers

If you wish to change the order in which the products fall into the blender, then you can release the rear cover and change the order of the connectors. The hopper which had direct fall then becomes inclined and vice versa.

3.9.- Hydraulic Circuit Diagram (Espresso/Instant)



Espresso Hydraulic Circuit Diagram



Instant Hydraulic Circuit Diagram

CHAPTER 4. Programming

4.1.- How do we communicate with the machine?

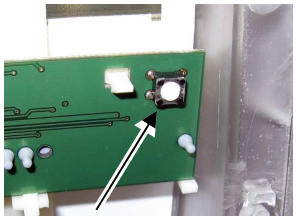
The **VITALE S** machine uses a selection keypad to communicate with the machine user.

When the machine is in programming status, the programmable functions are accessed by pressing the different buttons.

The machine has an information screen which shows messages during service, programming and warning messages for maintenance and cleaning.

4.2.- What can be programmed?

To access Programming, press the button on the circuit board inside the door (**P**).



4.3.- Quick access to functions

Press the **P** button to enter the quick access mode. In this mode, several functions are available with a single press of a selection button. The display shows: “SELECT OPTION”.
The available functions are:

Button	Function
1	Rinse mixer bowls
2	Clean espresso group
3	Audit – individual drinks
4	Audit – total drinks
5	Descaling

You can press and hold the **P** button for 3 seconds to access the standard programming menu.

4.4.- Programming menu

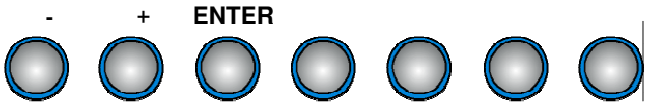
On Vitale machines, programming is performed on the machine display. If the machine is fitted with a pay module, then the values being modified may appear on the module’s screen, but the functions are controlled from the machine display.
Press and hold the **P** button for 3 seconds to access the programming menu.

The first function available appears on the screen of the machine:

010 LISTING

The buttons flash. Press a button to access the function or the P button to quit.

Use pushbutton 1 (on machines with 3 and 7 pushbuttons) to lower the function No. and pushbutton 2 to raise the function No.. Use pushbutton 3 to access the function. Press the programming button to exit.



Function F030 is used to access a set of tests on the elements of the machine. When the function is entered, the test that can be performed is shown on the bottom line. The tests available, both on espresso and soluble product machines, are:

BLENDERS
EXTRACTORS
SOLENOID VALVES
WASH BLENDER
FILL BOILER
SERVICE TEST
DESCALING

On machines with espresso group, the following tests are also available:

MOVE GROUP
GRINDER
DOSER
CLEAN GROUP

Choose the test you want to perform by pressing buttons 1 and 2, and select using button 3.

After entering either function F110, F111 or F201, you are asked which selection you want to access via the following screen:

PRESS SELECTION

In functions F490 and F491, you are asked to select a hopper or a service. The hopper or service to edit is selected with the first 4 buttons, in the same way that the function number is selected.

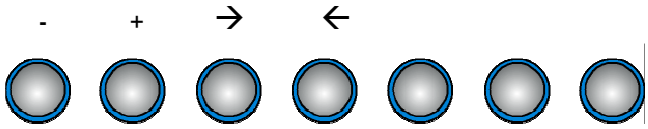
The following is a list of the programmable or executable functions:

Function	Description
F010	On-screen display of incidents history
F030	Machine test
F110	Accountancy of money sold per selection
F111	Accountancy of units sold per selection
F120	Accountancy of total money sold
F121	Accountancy of total units sold
F171	Deletion of accountancies
F201	Programming of price for each selection
F204	Programming the same price for all the selections
F300	Association of selections to services
F315	Programming services
F401	Factory settings (*)
F412	Programming coin values
F461	Programming setpoint temperature
F465	Autonomy mode selection (water tank/connection to mains)
F472	Programming operator code
F490	Programming the names of the hoppers
F491	Programming the names of the services

(*) Warning: If you run the F401 function, ensure you have placed the liquids tray, otherwise the machine will identify that it is mounted on a pedestal and will deactivate the pads counter and the machine not it will alert you on the screen if the waste tray is full.

Editing values:

When many of the functions are entered, a numeric or alphanumeric value can be edited. The digit or character to edit flashes on the display.



The 4th button only works when editing the 2nd digit or greater. The 3-button machine does not have this button. In order to modify a digit which has already passed, you have to continue to the end of the number and access the edition of the value again.

OUT OF CHANGE

The display flashes the credit on models connected to a change-giver when it is in "change stock out" mode.

4.4.- Service programming.

4.4.1.- What is a service?

A service is the act that the machine performs every time that a customer presses a selection. More specifically, a service is the steps that the machine must take in order to complete the operation that has been selected.

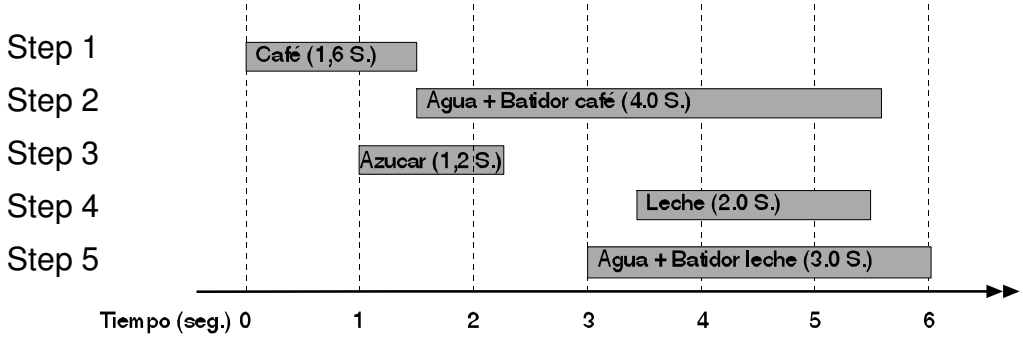
Therefore, when programming a service, each one of these steps must be programmed. For example: At home, when you prepare a soluble coffee with milk, various actions must be taken:

1) Put coffee in a cup.
2) Add sugar.
3) Add hot water.
4) Stir the mixture.
5) Add milk.

In brief, in order to serve a coffee with milk, the same sequence must be programmed in the machine.

It is also a good idea for the actions to overlap each other in order to shorten the service time and to get the optimum mixture.

The service sequence of coffee with milk in the machine could thus be stated as follows:



The machine begins to dispense coffee at the start of the service, which it continues to do for 1.6 seconds. Going to the next step after the service is initiated, it dispenses sugar for 1.2 seconds. Once the coffee has been added, the machine adds water in the coffee blender and it causes the blender motor to operate for 4 seconds. Meanwhile, after 3 seconds have elapsed, the machine begins to add water in the milk blender, and 0.3 seconds later it begins to dispense milk for 2 seconds. The milk blender will end its operation after 3 seconds and will finalise the service. The total elapsed time is 6 seconds.

4.4.2. Function 315 PROG. SERVICE.

The complete configuration of each service can be programmed at function 315.

Within this configuration, you can program the various steps that the machine must perform in order to provide that service, the time that it starts during the service and the duration.

Once function 315 is accessed, choose the service to program, pushing the corresponding selection button.

The following may subsequently be performed:

- **MODIFY** an already-programmed step.
- **ADD** a new step to a service, or
- **DELETE** a step from a service.

Pass from one step of the service to another by pressing buttons 1 and 2 (up/down respectively) and then button 3 to select the step displayed on the screen.

If the option, **MODIFY A STEP**, is selected, the machine will display the CONFIGURATION SCREEN of the step:

HOPPER	**ACTION**
ST: 00.0	**ET: 00.0**

Where:

HOPPER is the name of the hopper that is going to used.

ACTION is the type of operation that is going to be performed with that hopper (add water, product...).

ST The start time of the action, which starts counting as from the moment the machine is in the service position. Two whole numbers and one decimal can be entered (between 0.0 and 25.59.

ET Tiempo de producto o volumen.

If WATER is being programmed, the volume in c.c., en máquinas con contador volumétrico, that is going to be dispensed in that step should be programmed instead of the end time.

After choosing the step to edit, start editing. The field to be edited flashes (it can be the field of the name of the hopper, the type of step or one of the digits in the time or volume values).

The buttons work as follows:

- + → ←

The 4th button only works when editing the 2nd digit or higher. This button does not exist on 3-button machines and so in order to modify a digit that has already passed, it is necessary to continue to the end of the number and access the edition of the value again, Finish by pressing “P”.

In each step, the start time, the action to be performed and what hopper or blender is going to perform the action and its time in seconds must all be programmed.

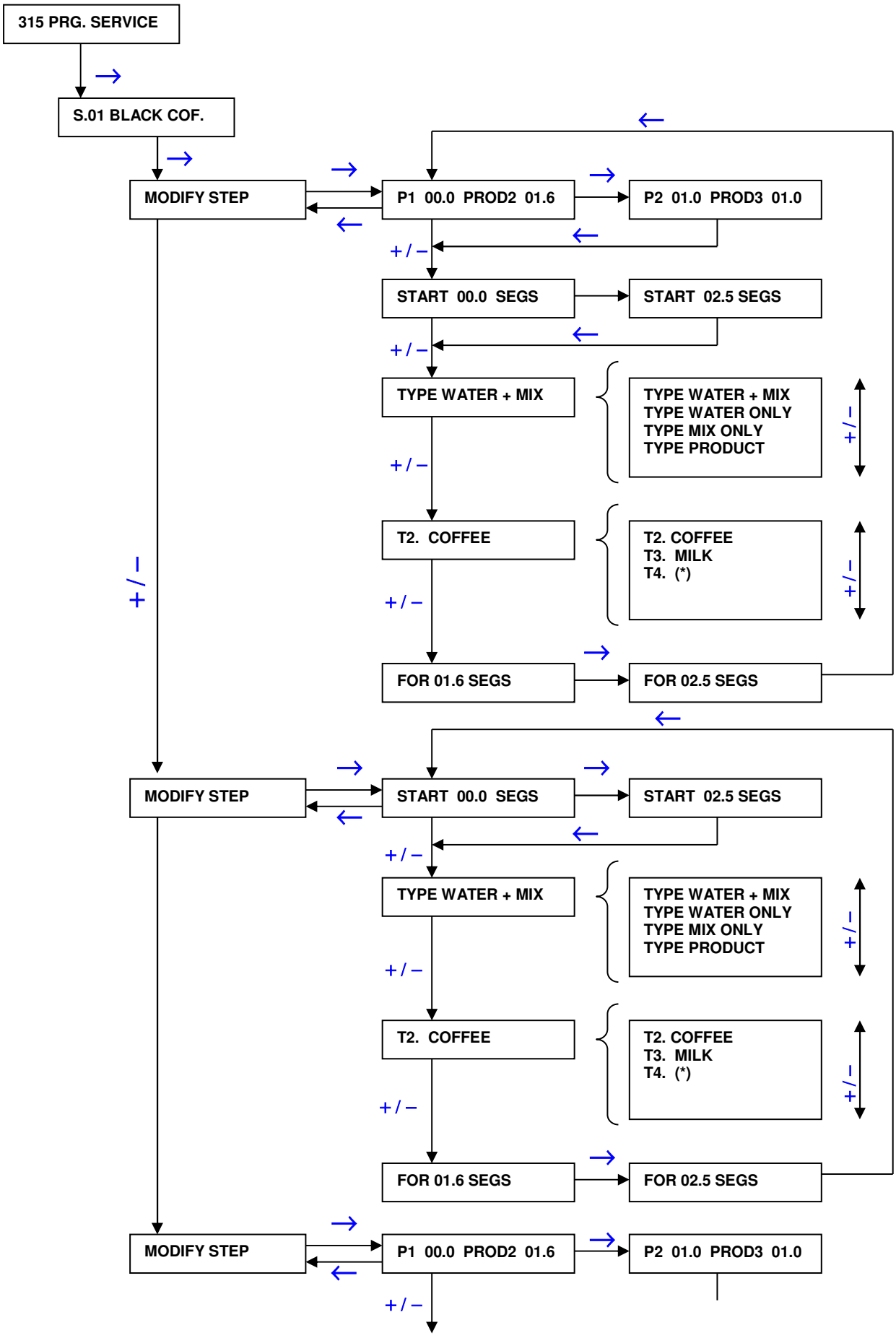
After finishing the programming of each step, the screen will display the programming and then the next step can be programmed.

If **ADD A STEP** has been selected, direct access to the new step will be provided. The procedure is the same as the aforementioned one.

If **DELETE A STEP** is selected, select the step (pressing 1 or 2) and then delete it (pressing 3).

NOTE: If P is pressed at any time during the programming of a step, programming will be exited and the data will not be recorded

The complete schematic of function 315 PROG. SERVICE is shown below:


315 PRG. SERVICE
S.01 BLACK COF.
MODIFY STEP
P1 00.0 PROD2 01.6
P2 01.0 PROD3 01.0
+/-
START 00.0 SEGS
START 02.5 SEGS
TYPE WATER + MIX
TYPE WATER + MIX
TYPE WATER ONLY
TYPE MIX ONLY
TYPE PRODUCT
T2. COFFEE
T2. COFFEE
T3. MILK
T4. (*)
FOR 01.6 SEGS
FOR 02.5 SEGS
MODIFY STEP
START 00.0 SEGS
START 02.5 SEGS
TYPE WATER + MIX
TYPE WATER + MIX
TYPE WATER ONLY
TYPE MIX ONLY
TYPE PRODUCT
T2. COFFEE
T2. COFFEE
T3. MILK
T4. (*)
FOR 01.6 SEGS
FOR 02.5 SEGS
MODIFY STEP
P1 00.0 PROD2 01.6
P2 01.0 PROD3 01.0
+/-

CHAPTER 5 – TROUBLESHOOTING AND MAINTENANCE

5.1 - Reset

If your machine is out of service, enter and exit programming by pressing the programming button twice.

5.2 – Error detected by the machine.

The machine communicates different errors it detects in the normal serving function through different illuminated button combinations.

To inform you that there is an anomaly, buttons 1 and 2 light up intermittently. Different combination of the buttons 3 to 7 indicate what error has occurred.

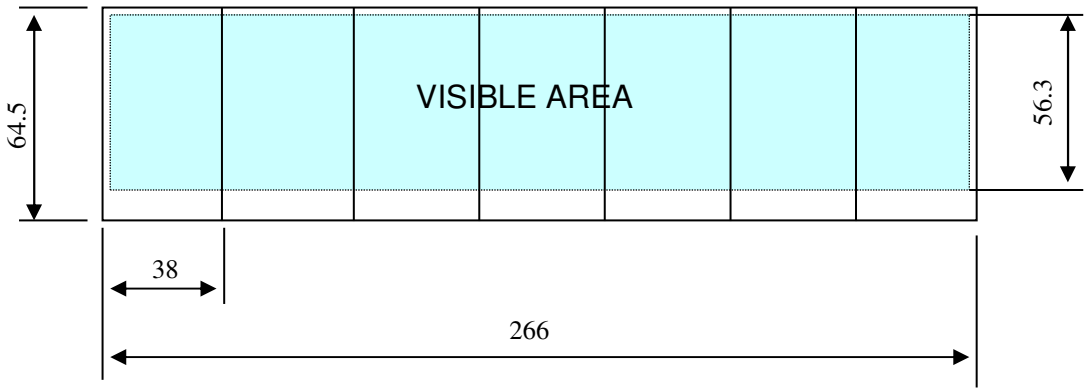
The following is a list of possible errors:

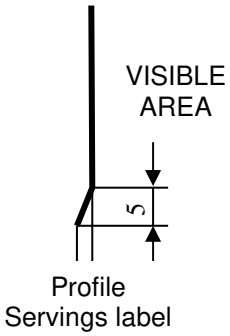
Message	Possible causes
LOW TEMPERATURE	The machine displays this warning for approx. 1 min. on being started up
ERROR: NO WATER	Check the water supply. Fill the water tank
NO COFFEE BEANS	Load the hopper with coffee Check the position of the group outlet shutter
WASTE BIN FULL	Remove the waste tray, clean it and refit it
LONG DISTRIBUTIO	Adjust the grinding time to coarser. Clean the group showers Check that there is voltage to the input solenoid.
RESIST. FAULTY	Element broken or disconnected
TEMP.SENSOR ERR.	Probe broken or disconnected
FAIL.WATER LEVEL	Check mains pressure. Input solenoid or level ball broken or disconnected.
DOSAGE ERROR	Doser broken or disconnected
F.ESPRSS.UNT.POS	The group motor does not work. The position detector does not work properly.
NO WASTE BIN	The tray is missing or not fitted properly.

5.3.- Changing the product signs and the photo

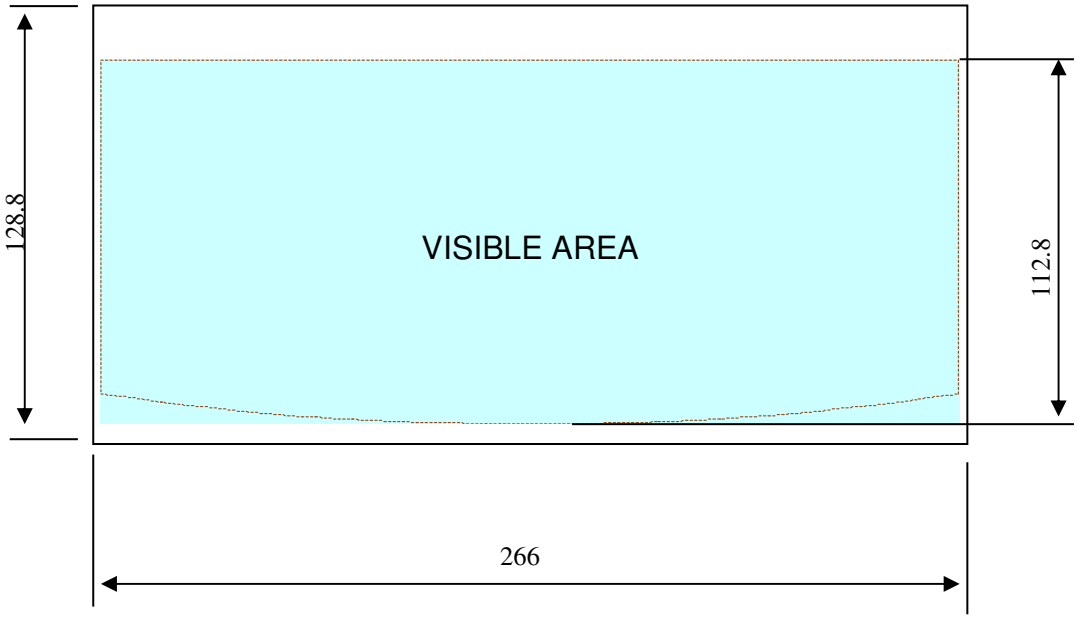
Both the signs and photo on the machine are "customisable". You can make your own signs, so long as they coincide with the programmed servings, or your own photo.

The dimensions of the photos are as follows (in mm):





Selection sheet



Photo

To change either of the two sheets, remove the cover inside the door and pull the old photo out. To insert the new photo, lift the securing tabs slightly so that the photo slides underneath and is secured.

To insert the servings label better, make a small 5 x 1 mm fold at the bottom and inside as shown in the detail of the profile.

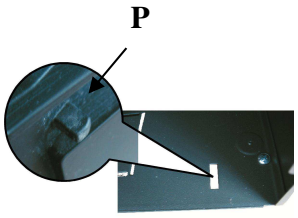
CHAPTER 6. CLEANING THE MACHINE.

6.1 – Parts which need to be cleaned regularly

The following parts of the machine need to be cleaned depending on the number of servings the machine performs.

Liquid tray. Simply lift it slightly to extract the box and then the tray.

On inserting the box, the pivots (**P**) underneath must be positioned in the grooves on the bottom of the machine.



Blenders. Turn the securing bushing to extract the entire blender. When remounting it, remember to secure it with the bushing.

6.2.- Periodical cleaning of the coffee bean group

Every 20,000 servings or every year	Extract the brewing piston and change the upper shower. Demount the lower filter. Submerge it in a solution of boiling water and detergent for 15 minutes. Rinse several times with clean water, dry it and fit it back on.
Solenoid valves	If you observe that one of the soluble product blenders has lost water flow partially or totally, proceed to clean the solenoid valves using the normal procedure for descaling.
Yearly clean	Clean and disinfect the hydraulic circuit (rubbers, blenders, etc.), submerge all of it in a solution of boiling water and detergent for 15 minutes. Rinse several times with clean water, dry it and fit it back on. Dismantle the brewing piston and the lower group, and wash with water.

For use in USA

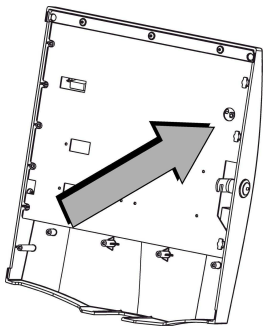
Food contact parts must be washed with detergent, rinsed with clean water, and sanitized with an approved sanitizer and air dried in accordance with the FDA FOOD Code. We recommend STERA SHEEN, approved by NSF sanitizer.

6.3.- Cleaning cycle for the group brewing chamber

For hygiene reasons, this process should be performed at least once every three months in order to eliminate coffee particles from the brewing chamber.

Use special detergent tablets for super-automatic coffee machines. There are tablets weighing 2 to 3 g available on the market.

Before you start, remove the liquid tray from the machine. Empty it of solid and liquid waste. Put it back into position on the machine.
You also need a cleaning tablet ready for use.



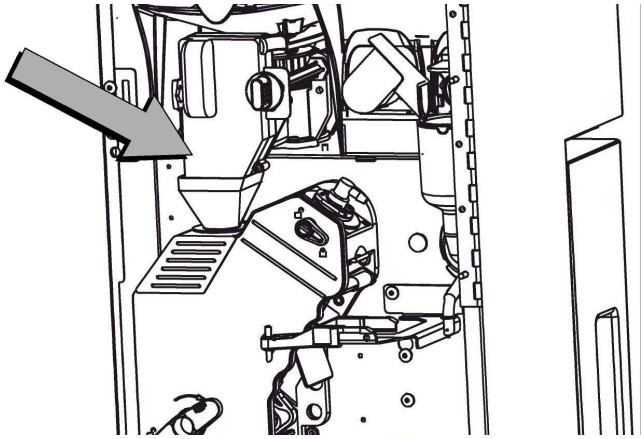
Access the group cleaning function via machine test function F030. Select the test “CLEAN GROUP”.

1. The group moves to a specific position and pours a quantity of water into the waste tray for pre-soak.

2. The group moves to the load position.

3. The following message is displayed “INSERT TABLET AND PRESS ANY KEY”. Insert the cleaning tablet in the group chamber and press any button.

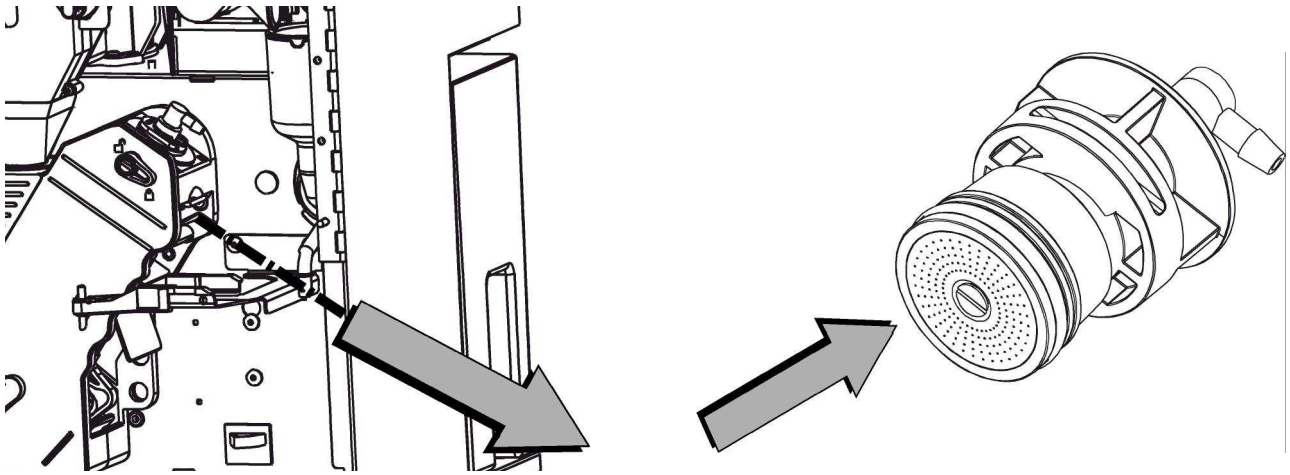
4. Insert the tablet and press any button on the service panel. The machine starts to discharge water to fill the ducts with the soapy water. There is a 30-second wait during which cleaning takes place and then the washing phase begins.



5. The water from the brewing chamber is poured into the waste tray and another wash cycle is performed.

6. 3 espressos are then made one after another and the cycle finishes.

7. For correct cleaning, you should remove the upper piston and clean the upper filter with cleaning paper or a brush to eliminate any particles which may remain on the filter.



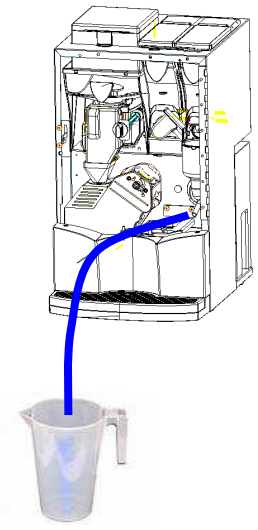
6.4.- Descaling cycle.

This process should be performed at least once every 3 months unless anti-scale filters or pre-filtered water are being used.

The process lasts approximately 30 minutes and must not be cut short.

The benefits obtained from this process are:

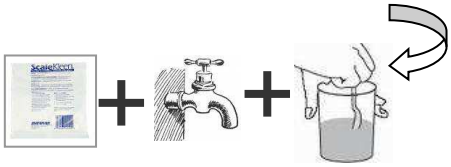
- Longer life for your Vitale coffee machine
- Prevention of machine operation faults



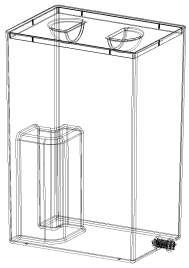
If the descaling process is not performed properly, residual scaling may remain in the machine, meaning that scaling may build up more quickly, possibly damaging the machine.

The descaling process should only be performed using citric acid (Everpure Scalekleen or similar). Never use vinegar for this process.

Prepare a receptacle capable of holding more than two litres and connect it to the blender outlet with a rubber tube or similar to drain the waste liquid produced during the process.

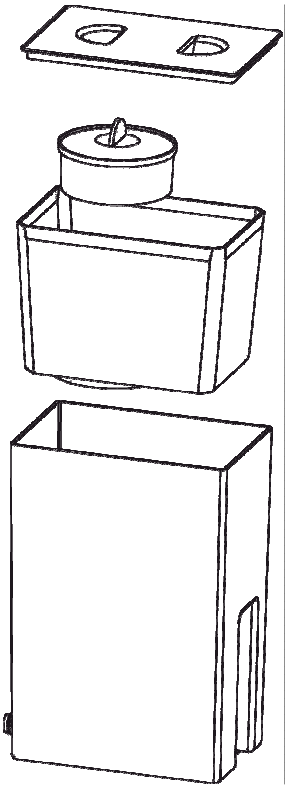


Process:



1. Pour the contents of the citric acid sachet (100 g) into the tank with 2.5 litres of water (water tank just over half full) and stir with a long utensil, such as a spoon, to dissolve the mixture.
2. Access the group cleaning function via machine test function F030. Select the test “DESCALING”.
3. The cycle begins automatically when the test is selected. Wait until the machine finishes the cycle.
4. Remove the water tank, rinse with clean water and fill it to full. Repeat the same cycle (steps 2 to 6) for a wash cycle and rinse cycle.

6.5.- Replacing the water filter.



The machine may be fitted with a water filter to eliminate impurities, reduce water hardness and avoid unpleasant tastes and blockage in the water circuit.

The filter must be changed on a regular basis depending on the hardness of the water used. The following table gives guideline capacities:

Carbonate hardness ºKH	Capacity	Cups	
		130 ml	150 ml
6 ºKH	242 litros	1860	1610
8 ºKH	181 litros	1390	1210
10 ºKH	145 litros	1120	970
12 ºKH	120 litros	930	810
14 ºKH	103 litros	800	690
16 ºKH	90 litros	700	600
18 ºKH	81 litros	620	540

To replace the filter, simply extract the used filter from the tank and insert a new one.

6.5 – Exterior cleaning

Do not use spray! Use warm water (between 20°C and 40°C) and one of the following products: Washing-up liquid, neutral shampoo, alcohol-free window cleaner.

Rinse with a 2% vinegar (acetic acid) solution and dry with a soft cloth or duster.

If there are stubborn stains (grease, beverages, etc.), use a solution of water and sanitary alcohol (96º Ethanol) at 1 % concentration.