Venezia-17
Service manual

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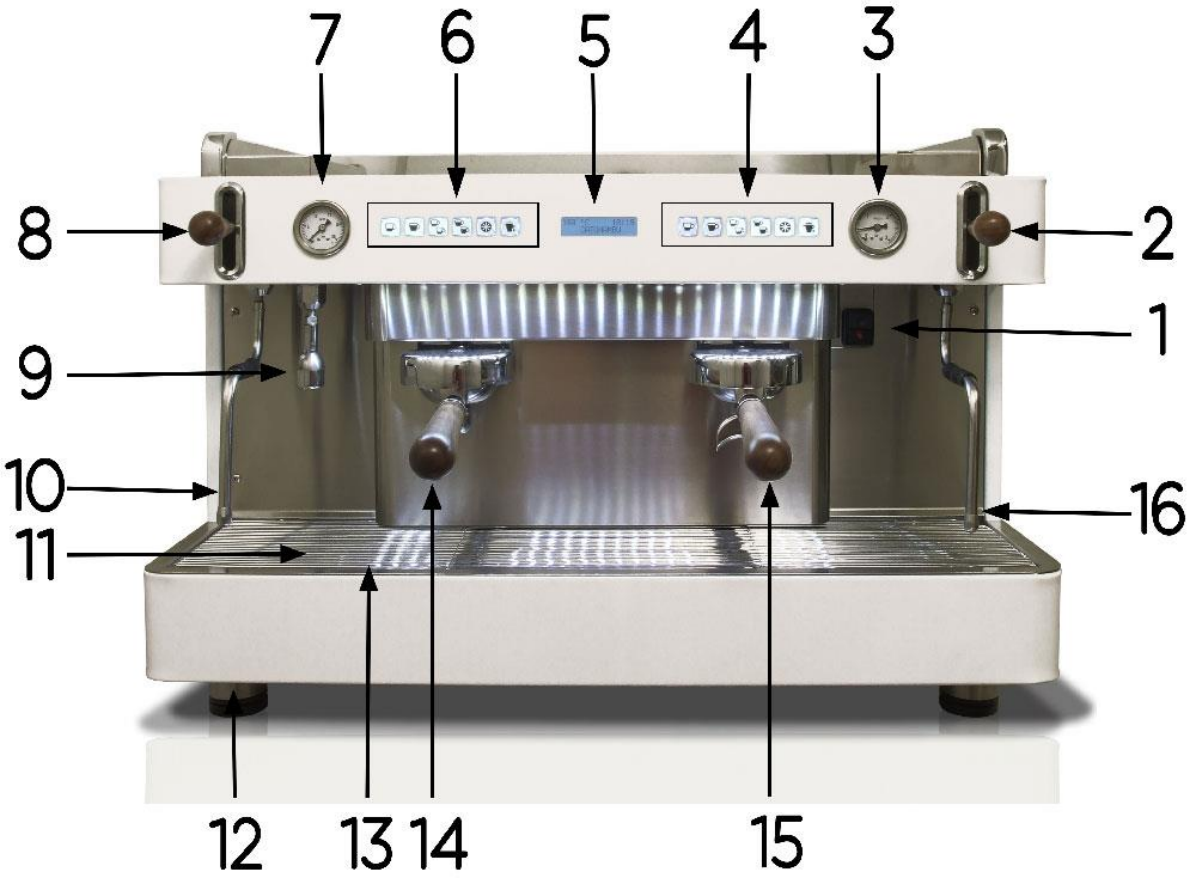

1. MAIN SWITCH
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Overview

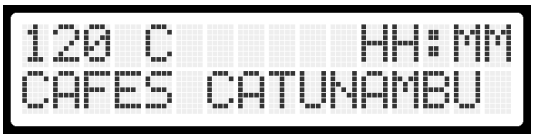
VENEZIA-17 EXTRA FEATURES

The Venezia-17 includes the following additional functions accessible on programming level:

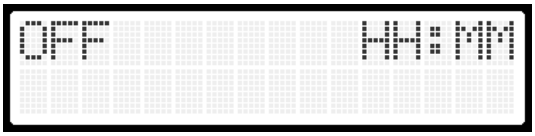
- *Automatic daily on/off timer (stand-by function).*
- *Clock settings (current time and date).*
- *Promotional display.*
- *Number of coffees/infusions dispensed.*
- *Digital boiler-temperature display and control.*
- *PID-technology boiler-temperature control.*
- *Programming and settings help system.*
- *Visual water-softener regeneration alarm.*
- *Display language selector.*

MACHINE STATUS:

On: *The machine is operational and ready to make coffee. This is the usual machine status after turning on the power switch.*



Stand-by: *The power switch is on, but the display shows "Off"*



This means that the machine is in energy-saving mode. This mode is only entered whilst the machine is on. To enter this mode, press the "continuous" dispensing button, and, without releasing it, simultaneously press the 2 Short Espressos button. To exit this mode and turn the machine back on, press the 2 Short Espressos button again.

Off: *The coffee machine is turned off at the power switch.*

AVAILABLE BUTTON FUNCTIONS

While programming, the dose buttons are used with different functions that usually are the following:

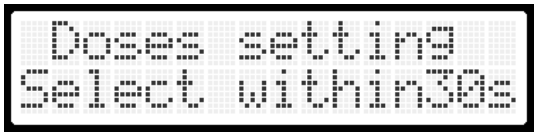
Out of the programming modes, the dose buttons return to its original functions:

*All programming functions (apart from dose programming) must be made on the Group 1 keyboard (**6**) –the leftmost-.*

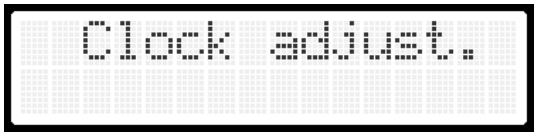
Accessing the user's level adjust

SETTING THE CLOCK

To set the clock you must press for 5 seconds the "continuous" button until the "doses settings" screen appears on the LCD.



Then release the "continuous" button and press it once again. The following screen will appear on the LCD:



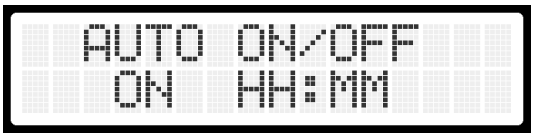
*Then you must use the keyboard (**6**) with the features:*

First press "Ok" and then it will appear the current time and day of the week. The blinking value of the hours can be modified with the + or – keys. When the right value is settled, you can press Ok to accept and the minutes will start to blink. Select again the right value with + and – and press Ok when the desired minutes are settled.
Finally, set the day of the week the same way, pressing Ok to accept it.

Then you can abandon the programming mode and reach the stand-by screen on the LCD by pressing twice the "programming" key or you can access to the "Auto On/Off" menu by pressing the "2 espressos" button.

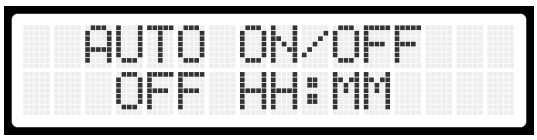
AUTO ON/OFF

After accepting the changes made in the "set clock" menu, pressing the "2 espressos" button give access to the coffee machine's auto on/off programming menu.

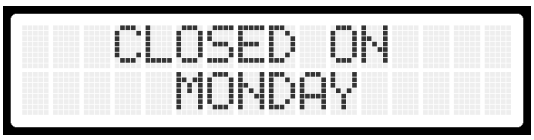


To change the auto on/off time, increase/decrease the values (hours) using the "1 espresso" and "1 coffee" buttons while the values are flashing. When the desired value is reached, press the "2 espressos" button to accept it. Set the values for the minutes the same way.

When the desired value is reached, press the 2 Short Espressos button to accept it.



Then you must program the off time. The minutes values will start flashing. Set these values in the same way as described above. After accepting the time, the next menu will be displayed.



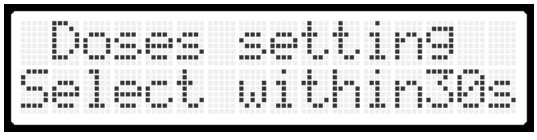
If auto on/off is enabled, it will also be possible to set a day on which the machine will not be turned on automatically. This option will not be displayed if auto on/off is disabled.

To set the day off , increase/decrease the values by pressing the "1 espresso" and "1 coffee" buttons. When the desired value is reached, press the "2 espressos" button to accept it.

By default, this setting is set as: On: - - : - - (indicating that the function is disabled). Changing the value to anything other than - - : - - enables the function. To leave this function disabled, press the 2 Short Espressos button while the value selected is - - : - - .

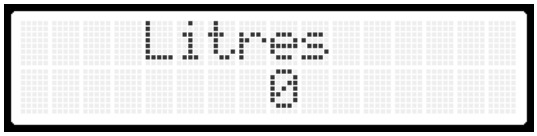
CHECKING THE COUNTERS

To see the counter values you must start as the dosage programming, pressing for 5 seconds the "continuous" button until the "doses settings" screen appears on the LCD.

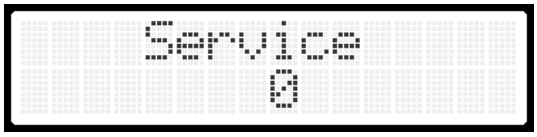


Then release the "continuous" button and press it twice. The following screen will appear on the LCD:

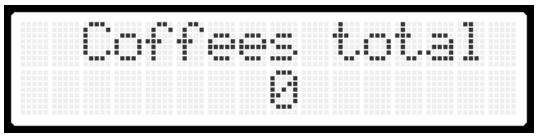
Press the "Ok" key to see the first screen:



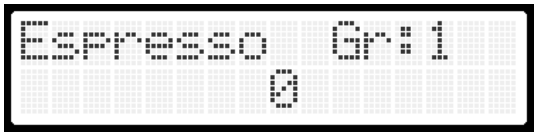
From now on, press the continuous key to check all the counter pages. Pressing once we get the liters remaining for the scheduled revision.



Pressing once again we get the total coffees served.



And finally, the counters of every coffee served by every dose of every group of the machine



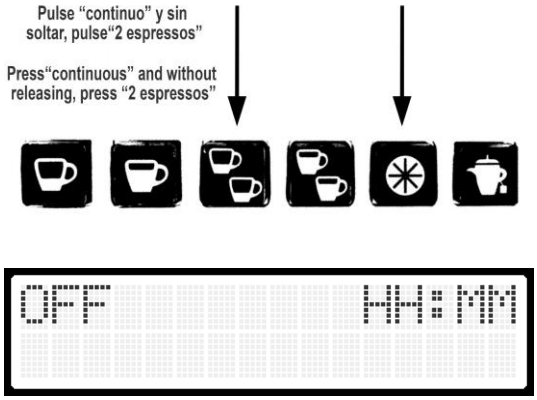
Accessing the technical programming level

ACCESS

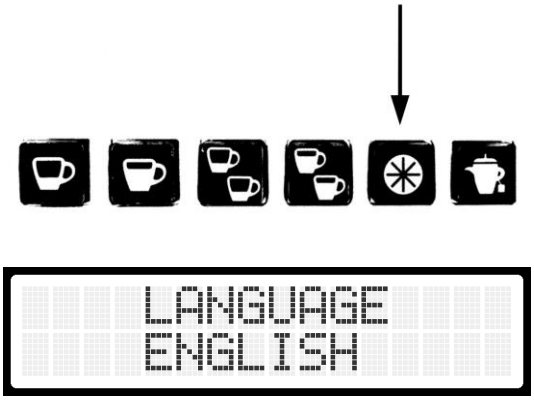
Accessing these settings menus is only possible via the group 1 keyboard.

To access the settings menus:

Turn the machine OFF (Standby mode) by pressing and holding down the "continuous" button and the "2 espressos" button simultaneously.



Hold down the "continuous" button for 15 seconds (until the display shows the "Language" option).



LANGUAGE

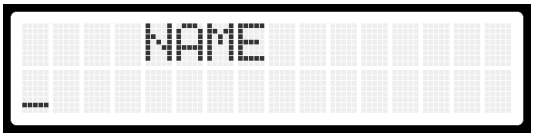
Press the 1 Espresso button (+) to cycle forward through the languages and the 1 Long Espresso button (-) to cycle backward through them.

Languages available: Spanish, English, French, Italian, German and Portuguese.

To accept the language selected and access the next menu, press the "continuous" button.

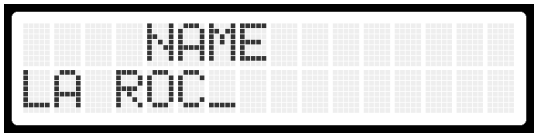
NAME

The display name comprises 16 characters. The message displayed can be edited in this menu.



To change the flashing character, press the "1 Espresso" (+) and "1 coffee" (-) buttons.

To accept the character and move on to the next one, press "OK" (2 espressos" button).



To accept the setting selected and move on to the next menu, press the Continuous Dispensing button

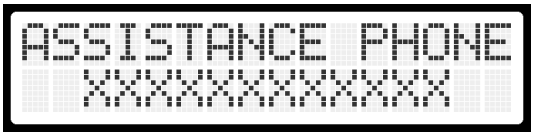
ASSISTANCE PHONE

This menu is used to edit the telephone number displayed when the service alert counter reaches the value set for the maintenance cycle.

To edit the flashing number, press the "1 Espresso" (+) and "1 coffee" (-) buttons.

To accept the number and move on to the next one, press "OK" ("2 Espressos" button).

To accept the setting selected and move on to the next menu, press the "continuous" button.

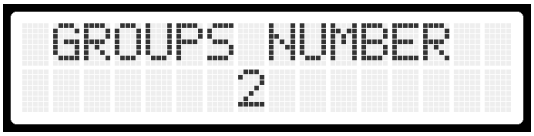


NUMBER OF GROUPS

This menu let the control box know how many groups the machine has. The default factory value must be respected. A higher value will show unused values on the counters menu and a lower value will leave some groups out of function.

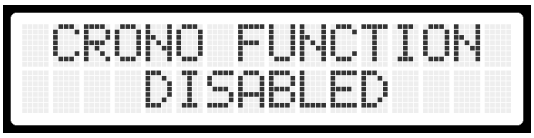
To edit the flashing number, press the "1 Espresso" (+) and "1 coffee" (-) buttons.

To accept the setting selected and move on to the next menu, press the "continuous" button.



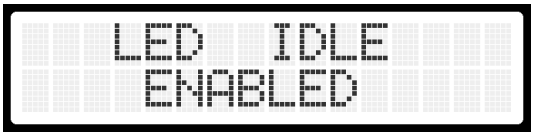
CHRONOMETER FUNCTION

With this function enabled, the LCD will show the brewing time while making coffee.
To modify the current option, press the "1 Espresso" (+) and "1 coffee" (-) buttons.
To accept the setting selected and move on to the next menu, press the "continuous" button.



LED-IDLE FUNCTION

With this function enabled, the backlight of the keyboards is active while the machine is ON.
To modify the current option, press the "1 Espresso" (+) and "1 coffee" (-) buttons.
To accept the setting selected and move on to the next menu, press the "continuous" button.

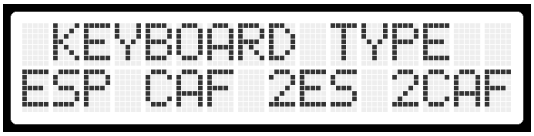


KEYBOARD TYPE

This menu let the control box know how the keyboard doses are ordered to match the key pressed with the dose shown on the LCD. It is not recommended to modify the default value.

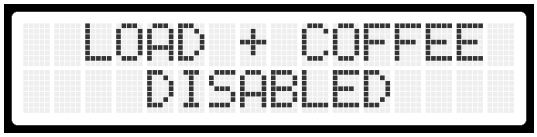
To edit the flashing number, press the "1 Espresso" (+) and "1 coffee" (-) buttons.

To accept the setting selected and move on to the next menu, press the "continuous" button.



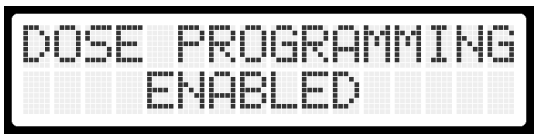
WATER LOAD + ESPRESSO

With this function disabled, the machine will not load water into the boiler while an espresso is being brewed. This is to prevent a decrease of the pressure that should affect to the espresso quality. The default and recommended option is "disabled".
To modify the current option, press the "1 Espresso" (+) and "1 coffee" (-) buttons.
To accept the setting selected and move on to the next menu, press the "continuous" button.



DOSE PROGRAMMING

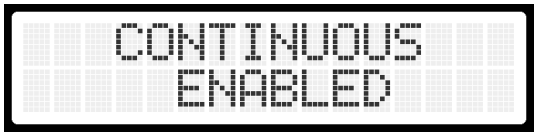
With this function disabled, the continuous button will not let the user to program the doses. If you want to let any user change the programmed doses, leave this option enabled.
To modify the current option, press the "1 Espresso" (+) and "1 coffee" (-) buttons.
To accept the setting selected and move on to the next menu, press the "continuous" button.



CONTINUOUS KEY

With this function disabled, the "continuous" button will not activate a group continuously and only the dose keys will keep the group working.

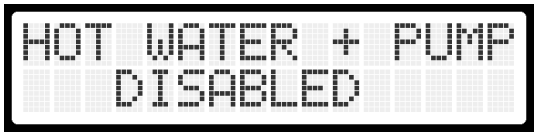
To modify the current option, press the "1 Espresso" (+) and "1 coffee" (-) buttons. To accept the setting selected and move on to the next menu, press the "continuous" button.



TEA + PUMP

With this function enabled, the machine will load water into the boiler every time that the user presses the hot water button. The default and recommended option is "disabled".

To modify the current option, press the "1 Espresso" (+) and "1 coffee" (-) buttons. To accept the setting selected and move on to the next menu, press the "continuous" button.

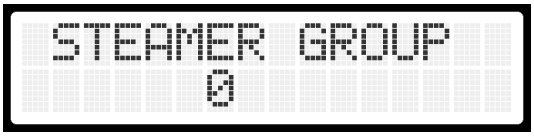


STEAMER GROUP

This menu let the control box know which group controls an optional steamer. The default value should not be modified.

To edit the flashing number, press the "1 Espresso" (+) and "1 coffee" (-) buttons.

To accept the setting selected and move on to the next menu, press the "continuous" button.

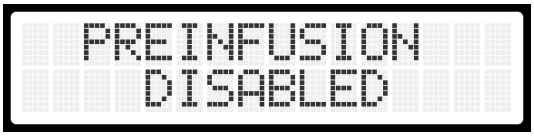


PRE-INFUSION

This function enables/disables electronic pre-infusion. By default, this option is disabled as the dispensing group includes a mechanical pre-infusion chamber.

To modify the current option, press the "1 Espresso" (+) and "1 coffee" (-) buttons.

To accept the setting selected and move on to the next menu, press the "continuous" button.

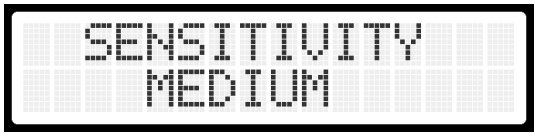


PROBE SENSITIVITY

This menu sets the level sensor's sensitivity . By default, sensitivity is set at "Medium" and will not normally require modification. However, it may be necessary to set the sensitivity to "High" if using very pure water with very low dissolved salt levels (or to set it to "Low" in the opposite case).

To modify the current option, press the "1 Espresso" (+) and "1 coffee" (-) buttons.

To accept the setting selected and move on to the next menu, press the "continuous" button.

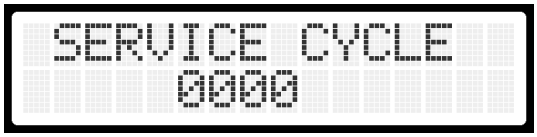


SERVICE CYCLE

This menu sets the number of coffees dispensed per maintenance cycle (before replacing shower plates, gaskets, etc.). When the dispensing counter reaches the number set (see fig. 26), the "Service" message will be displayed. A "0000" value will not show any "Service" message.

To edit the flashing number, press the "1 Espresso" (+) and "1 coffee" (-) buttons.

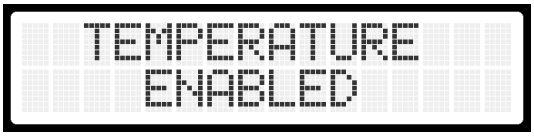
To accept the setting selected and move on to the next menu, press the "continuous" button.



TEMPERATURE CONTROL

This menu activates the PID control of the temperature of the boiler. The default value is enabled. Turning it to disabled will disconnect the heating element.

To accept the setting selected and move on to the next menu, press the "continuous" button.

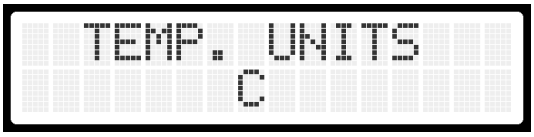


TEMPERATURE UNIT (°C - °F)

This menu allows to modify the unit of the temperature shown on the LCD. You can choose between °C or °F.

To edit the type of unit, press the "1 Espresso" (+) and "1 coffee" (-) buttons.

To accept the setting selected and move on to the next menu, press the "continuous" button.

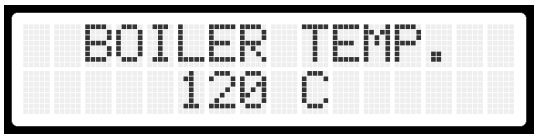


BOILER TEMPERATURE

This menu allows you to modify the setting of the boiler's target temperature while the machine is working. The default value is 120°.

To edit the number of degrees, press the "1 Espresso" (+) and "1 coffee" (-) buttons.

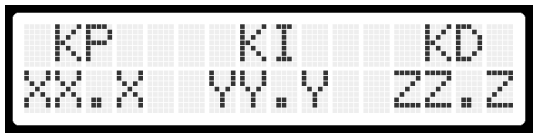
To accept the setting selected and move on to the next menu, press the "continuous" button.



PID SETTINGS

On this screen you can modify the proportional-integral-derivative correction's constant.

This parameter is preset at the factory based upon theoretical calculations and physical experiments.



- *It is not recommended that these numbers are changed.*
- *Changes to these parameters can cause unexpected results.*
- *Qualified technicians may wish to experiment with different values.*
- *If you do wish to change the values and find that unexpected results occur, return to the factory default values:*

kP kI kD

8.0 0.15 10.0

To edit the number of the constants, press the "1 Espresso" (+) and "1 coffee" (-) buttons.

To accept the constant and move on to the next one, press "OK" (2 espressos" button).

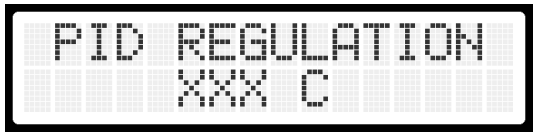
To accept the setting selected and move on to the next menu, press the "continuous" button.

If you wish a regulation with a 2°C hysteresis, you can set all PID values to 00.0:

kP kI kD

0.0 0.0 0.0

Once the setting has been completed, pressing the "continuous" key allows the display to change the setting of the PID regulation range with respect to the setpoint temperature. At the end of this range the setting is always on / off.



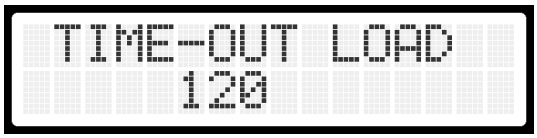
Where x is the value in degrees of the range and is a selectable value from 2 to 5 in steps of 1°C.

WATER LOAD TIME-OUT

This menu allows you to modify the time that the machine can be loading water into the boiler before showing the "time-out" alarm and stop all the functions.

To edit the number of seconds, press the "1 Espresso" (+) and "1 coffee" (-) buttons.

To accept the setting selected and move on to the next menu, press the "continuous" button.

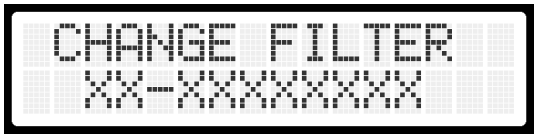


SOFTENER REGENERATION ALERT

This menu sets the volume of water in liters at which the control panel generates the water-softener regeneration alert. A "0000" value will not show any alert.

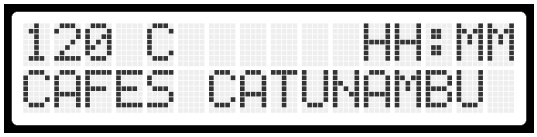
To edit the number of liters, press the "1 Espresso" (+) and "1 coffee" (-) buttons.

To accept the setting selected and exit the programming menu, press the "continuous" button.



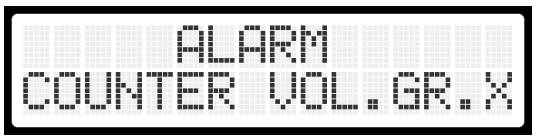
EXIT

Once pressed the "continuous" button on the softener regeneration setting, the machine abandons the technical programming level and goes back to the ON status.



Messages and alarms

FLOWMETER FAULT



Flow fault detected in counter X

Check that the machine is receiving water and the coffee pour is not very slow. Test the group without the filterholder on it.

If the machine is receiving water then:

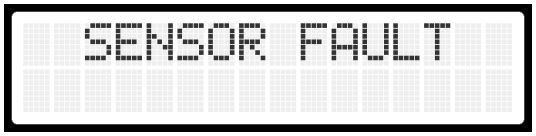
- *Check electric connection between counter and control box.*

- *Check that the wheel inside the counter is not blocked by lime or dirt.*
- *Replace the counter*

If the electronic control panel does not receive a pulse from the flow meter (coffee too fine or flow meter fault) within 5 seconds of pressing one of the espresso buttons, the light for the dose selected will start to flash. To disable it, press the dose button again.

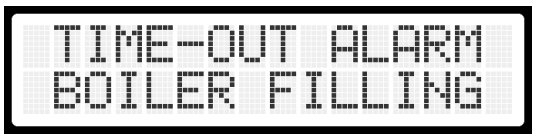
As an additional safety, all dose settings have a maximum dispensing time of 5 minutes.

TEMPERATURE SENSOR FAULT



There is a fault on the sensor or the electric connection to the sensor from the control box. Check the connection and wiring. If the fault continues, replace the probe.

TIME-OUT ALARM

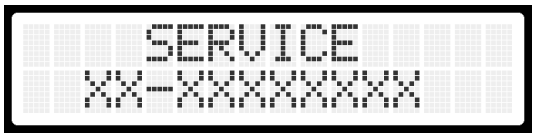


If the time-out alarm happens while the first water charge of the machine is on process, it can be normal if the net pressure is below 2 bar. Just turn off and on again the machine and the load will finish before the alarm appears again.

If the alarm is shown on the daily use of the machine, then you must check that the machine is receiving water. If the problem is not on the water net, then you must check that pump and load valve are receiving enough voltage.

If the voltage is right, then the solenoid charge valve must be checked.

SERVICE ALARM

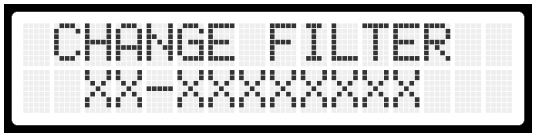


Service the machine

To disable the alarm and reset the counter:

Turn off the machine. Simultaneously press and hold down the "1 espresso" and "1 coffee" buttons. Turn on the machine.

FILTER REGENERATION ALARM



Regenerate the filter.

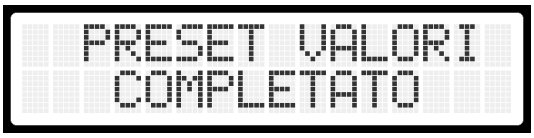
To disable the alarm and reset the counter:

Turn off the machine. Simultaneously press and hold down the "2 espresso" and "2 coffee" buttons. Turn on the machine.

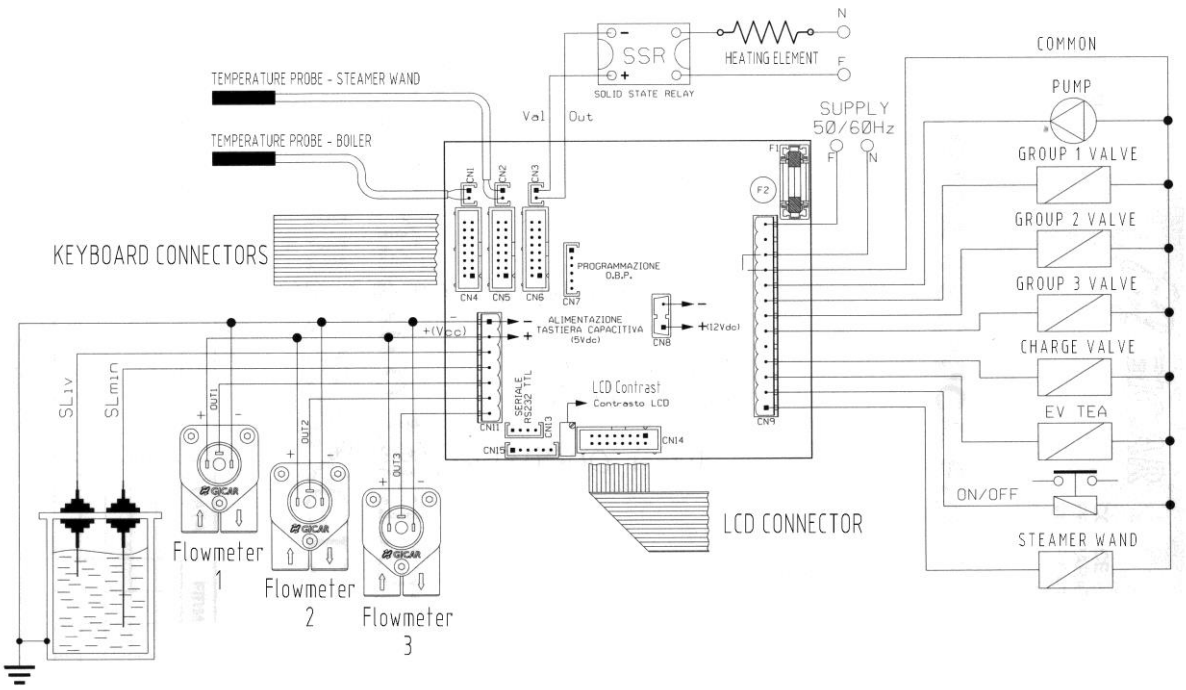
Reset the configuration to default

Reset the control box to default values allows erasing all the custom parameters of the control box and replacing them by the loaded on the EEPROM memory. This procedure can restart a machine that is not working properly due to software issues.
If a reset to default is done, most of the parameters of the machine must be programmed again following the indications on Chapter III.

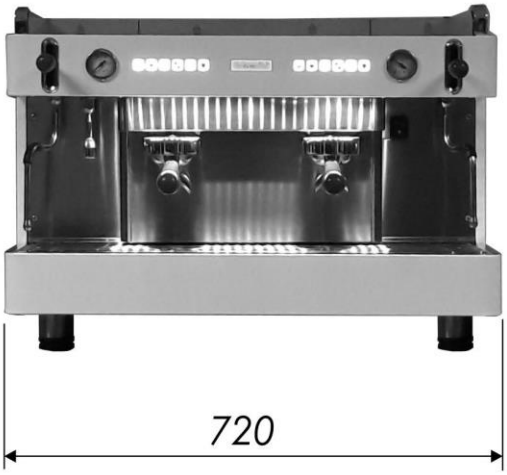
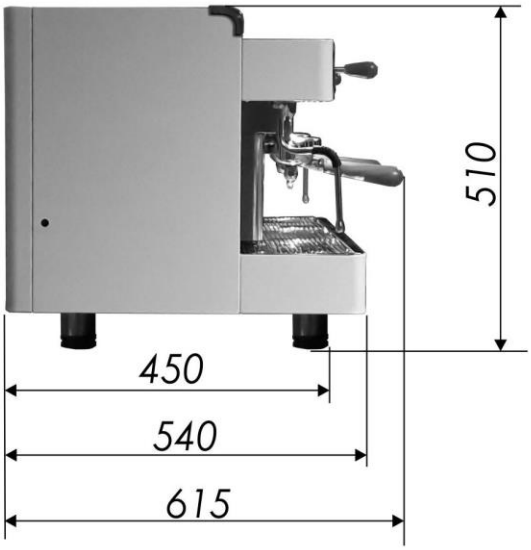
To set all values to default you must turn off the machine with the main switch (1), press the "1 espresso", "2 espresso" and "continuous" buttons of the group 1 keyboard.



Main board electric sketch



Technical data

	Venezia-17 2 groups	Venezia-17 3 groups
Automatic machine - Programmable doses	yes	yes
Groups	2	3
Weight (kg)	62	73
Boiler volume (l)	12	17
Power (w)	2,600 3,500 (opt)	3,700 4,500 (opt)
Dimensions (width)	730	970
Dimensions (height)	510	510
Dimensions (depth)	570	570
Built-in pump	yes	yes
Available finishing	Inox/black/white	Inox/black/white
Automatic water load in boiler	yes	yes
2nd steamer	yes	yes
Programmable hot water	yes	yes
Cappuccinatore	Opt.	Opt.
Serial connection to PC	Opt.	Opt.

DIMENSIONS