

DISPLAY



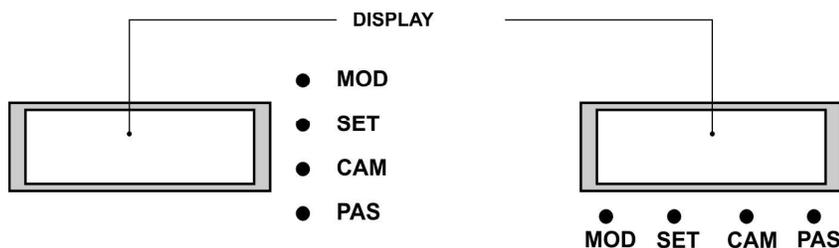
OPERATING INSTRUCTIONS

COFFEE MACHINE DISPLAY

Contents

1. **Main functions of display**
2. **User screens:**
 - 2.1 Main (Standby mode)
 - 2.2 System temperatures
 - 2.3 Coffee counter
 - 2.4 Water softener regeneration
 - 2.5 Clock programming
3. **Warning screens**
4. **Screens for authorised personnel**
5. **General diagram of the system**

1. MAIN FUNCTIONS OF THE DISPLAY



- MOD → Change screen
- SET → Change cursor value
- CAM → Move cursor position
- PAS →
 - Move cursor position
 - Enter the sub-screens
 - Go from one sub-screen to another
 - Confirm values changed

The system is made up of a group of twelve screens, which in turn are divided into a specific number of sub-screens, where the data is displayed and modified.

Depending on the model, the text in the displays, can be abbreviated or not.

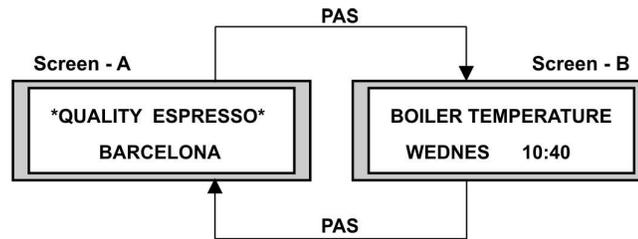
The **MOD** key enables movement through the group of screens.

Pressing the **PAS** key leads to the sub-screens. Pressing the **MOD** key from any sub-screen returns the user to the group of screens (see General Diagram of the System).

2. USER SCREENS

2.1 Main

It automatically alternates between two screens every 30 seconds (**Screen- A**, publicity and **Screen- B**, timer and temperature), the user being able to see either of them when desired, by pressing **PAS**.

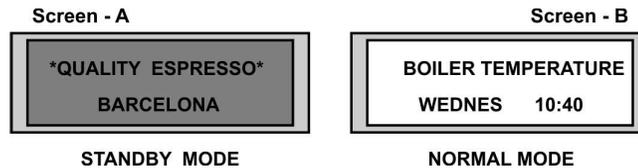


Standby mode: (Screen unlit, general switch in position - 1)

The machine remains in off position until put into use (normal mode)

Activate Standby:

From the timer screen (**Screen-B**), keep the **CAM** key pressed down (4 sec.) until seeing the display, the publicity screen unlit (**Screen-A**).



De-activate Standby: (Pass to normal mode)

Keep the **CAM** key pressed down (4 sec.) until seeing the publicity screen lit up (**Screen-A**)

2.2 System temperatures

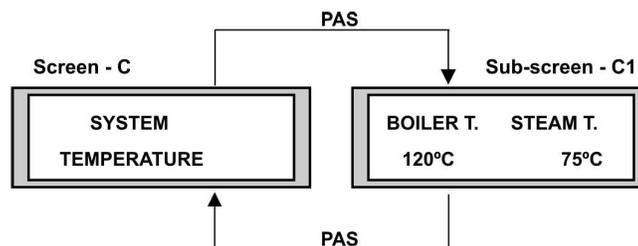
Shows the temperature of the boiler and the steam nozzle (according to the version of the machine)

The temperature of the boiler is shown from 45° C on, a in bold indicates when the heating element is working.

When, instead of the temperature, it shows XXX, it means that no probe is connected (or it has broken down).

Consult temperatures:

1. Press the **MOD** key to see the "SYSTEM TEMPERATURE" screen (**Screen-C**)
2. Press the **PAS** key to see the sub-screen with the required information. (**Sub-screen C1**)

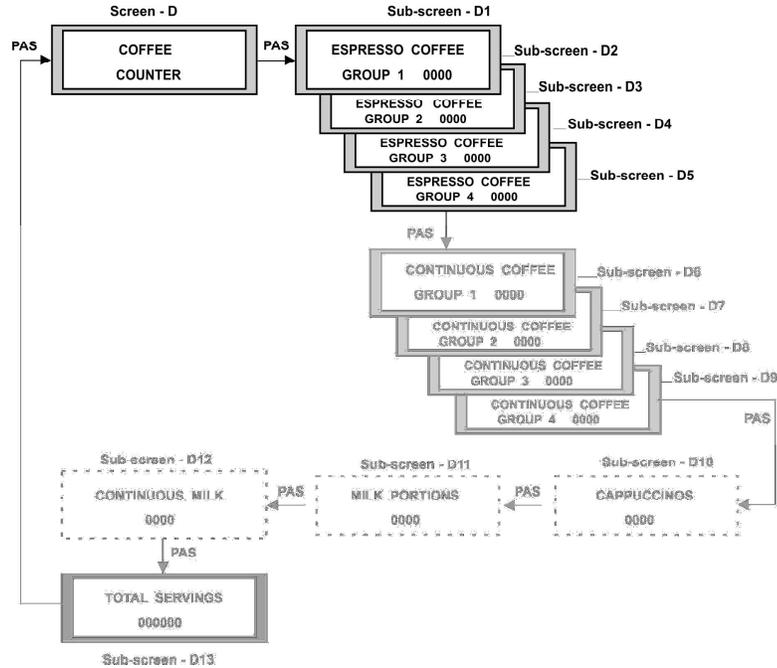


2.3 Coffee counter

Shows the number of partial coffees (programmed portions “ESPRESSO COFFEE” and continuous coffees (“CONTINUOUS COFFEES”) and totals made during the life of the machine (“TOTAL SERVINGS”)

Consult coffees made:

1. Press the **MOD** key until the screen displays “COFFEE COUNTER”. (**Screen- D**)
2. Press the **PAS** key as many times as required to see the sub-screen with the desired information.



IMPORTANT NOTE.- Screens with broken lines above only appear in models with automatic cappuccino maker incorporated.

Setting the coffee counter to zero:

1. Press the **MOD** key until the screen displays: “COFFEE COUNTER” (**Screen- D**)
2. Press the **PAS** key positioning it on the required sub-screen to be set to zero
3. Press the **CAM** key (the display digits flash)
4. Press the **SET** key (the counter goes to zero)
5. Press the **CAM** key (the display digits stop flashing)
6. Press the **PAS** key to confirm

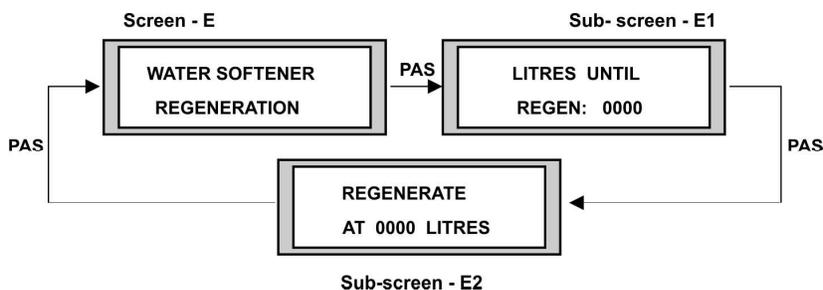
It is not possible to set the total servings to zero (**Sub-screen - D6**)

2.4 Regeneration of water softener.

It shows the litres remaining to be consumed before carrying out the regeneration of the water softener and the quantity of litres of water programmed that must be consumed before the regeneration is carried out.

To consult remaining litres and programmed litres:

1. Press the **MOD** key until the screen displays: “WATER SOFTENER REGENERATION” (**Screen - E**).
2. Press the **PAS** key the number of times necessary until the desired sub-screen is displayed.



Programming the number of litres of water at which the regeneration of the water softener must be carried out:

1. Press the **MOD** key until the screen displays: "WATER SOFTENER REGENERATION" (**Screen - E**).

Screen - E



2. Press the **PAS** key until the screen displays. "REGENERATION AT 0000 LITRES" (**Sub-screen - E2**).

Sub-screen - E2



3. Press the **CAM** key (the blinking cursor appears), press again the **CAM** key to move the cursor from units to thousands.

Sub-screen - E2



4. Press the **SET** key to change the value of the digit occupied by the cursor. Repeat steps 3 and 4 to set the number of litres of water required.

Sub-screen - E2



5. Pressing the **PAS** key, go to sub-screen "LITRES FOR REGENERATION" (**Sub-screen - E1**)

Sub-screen - E1



6. Press the **CAM** key (the digits on the display flash)

7. Press the **SET** key (the programmed quantity is established on the **Sub-screen - E2**)

Sub-screen - E1



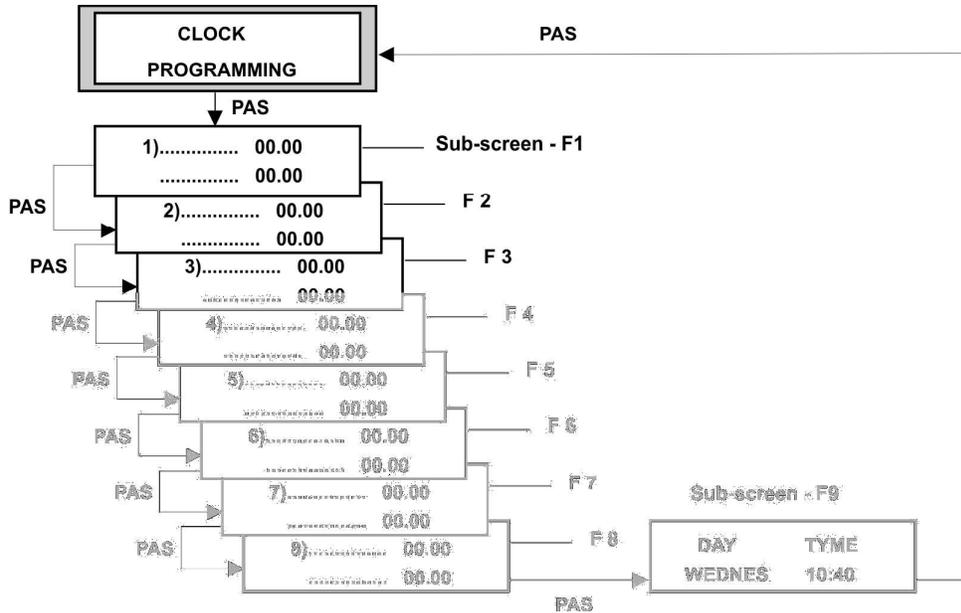
8. Press the **CAM** key (the digits on the display stop flashing)

9. Press the **PAS** key to confirm

2.5 Programming the clock

- Setting the time: Press the **MOD** key until the screen displays "PROGRAMMING THE CLOCK" (**Screen - F**)

Screen - F



- Press the **PAS** key the times necessary until displaying the **Sub-screen - F9**.

Sub-screen - F9



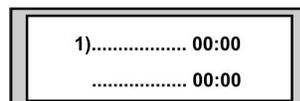
- Press the **CAM** key (the position corresponding to the day of the week flashes).
- Press the **SET** key until selecting the correct day of the week.
- Press the **CAM** key (the digits of hours blink), press the key again to move the cursor to the minute positions, the **SET** key changes the digits of the blinking cursor.
- Press the **PAS** key to confirm.

Programming time for "automatic on-off":

Press the **MOD** key until the screen displays "CLOCK PROGRAMMING" (**Screen - F**).

- Press the **PAS** key until seeing the sub-screen corresponding to the desired program (**Sub-screens F1 to F8**) for example **Sub-screen F1**.

Sub-screen - F1



- Press the **CAM** key (the day of the week blinks) press the key again to go to start hour and minute; and stop day, hour and minute.
- To change the values shown by the cursor, press the **SET** key.

4. Press the **PAS** key to confirm the changes made in the sub-screen. (On pressing the **PAS** key, as well as confirming the changed data, the next sub-screen will appear).
5. Successively repeat points 2,3 and 4 for each start up / close down that you wish to program.

NOTE.- In each sub-screen corresponding to each of the eight possible programmes for automatic start up and close down, the upper line shows the start up condition and the lower line the close down condition.

6. Examples of programming:
 - a) Starting and stopping every day.

DAILY	07:00
DAILY	23:45

- b) Starting on Monday and stopping on Tuesday.

MONDAY	07:00
TUESDAY	00:45

- c) Starting on Monday and stopping on Friday.

MONDAY	07:00
FRIDAY	00:45

- d) If the premises close for one or more days each week, the simplest way of programming is to create an automatic on and off program for each day of activity during the week.
 - e) The machine “ON” position alone can be programmed, the “OFF” being made manually. To do this put the machine in Standby Mode (2.1) at the end of the day.

NOTE: The machine always obeys any on-off programme there is on the sub-screens (from F1 to F8). To cancel any programming carried out, go through points 1 to 4 of this section, selecting in the position corresponding to the day for starting and stopping the following symbol: ----- (do not forget to confirm the change made as described in point 4 of this section).

If the machine is on standby waiting for an automatic start, the power supply is cut and returns after the programmed start time, the machine will remain on standby and will have to be started according to point 2.1

If the machine is on a programmed “OFF”, it can go on to “ON” by deactivating the Standby Mode (2.1)

In the case of making a coffee (in programmed portions) when there are less than 5 minutes remaining before an OFF programming, 5 minutes will be added from the minute that the coffee is made: this function does not apply in the case of CONTINUOUS coffee supply.

3. WARNING

3.1 Regeneration of water softener

The message "REGENERATE WATER SOFTENER" appears displayed when there are 25 litres remaining of the programmed quantity.

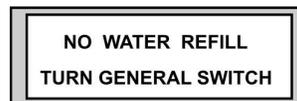


To erase this message, press the **PAS** key.

This message will reappear every time a new litre of water is consumed until regeneration is carried out and the "LITRES FOR REGENERATION" screen is updated (**Sub-screen - E1**).

3.2 Boiler safety level.

The message "NO WATER REFILL – TURN THE GENERAL SWITCH OFF" appears on the screen.

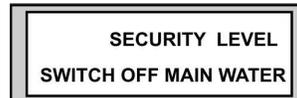


This message appears when the boiler is not at its normal working level (CALL YOUR AUTHORISED SERVICE TECHNICIAN).

Once the problem is solved, to eliminate the alarm and erase the message from the screen, turn the general switch to 0 position.

3.3 Maximum security level.

The message "SECURITY LEVEL – SWITCH OFF MAIN WATER TAP" appears on the screen"

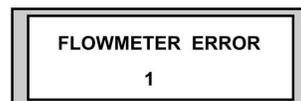


This message appears when there is too much water in the boiler (CALL YOUR AUTHORISED SERVICE TECHNICIAN). The system also starts up a safety cycle, which opens up the hot water outlet in order to avoid any possible flooding in the boiler (Intermittently to begin with in order to advise the machine operator).

Once the problem has been solved, to eliminate the alarm and erase the screen message, turn the general switch to the 0 position.

3.4 Flowmeter error

The message "FLOWMETER ERROR" appears on the screen.



This message appears when a dosage error is detected in the corresponding meter (showing the flowmeter number on the screen).

NOTE: it is possible for this message to appear if the coffee grinding is excessively fine, and the water does not pass through the coffee at the suitable speed.

This message will disappear on ordering another coffee from the same group.

If the warning continues and this is not the cause, CALL YOUR AUTHORISED SERVICE TECHNICIAN.

3.5 Pressure compensation

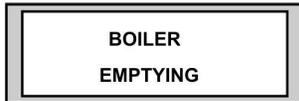
When the machine is turned on with the temperature of the boiler below 60°, the system will start up a pressure compensation cycle, as shown on the screen, with the aim of avoiding possible suction of liquids by depression inside the boiler.



Once this cycle has finished, the screen disappears (when the boiler reaches 103°). The screen can also be eliminated by pressing the **PAS** or **MOD** keys.

3.6 Boiler emptying cycle

The user can undertake a partial emptying of the boiler, which will be shown on the screen, maintaining pressed the hot water outlet button for approximately 6 seconds.



The system will force the hot water out for 25 seconds. After this time, the hot water coming out will stop, and the cycle can be repeated by maintaining the button pressed within 10 seconds.

NOTE: the boiler emptying cycle can be interrupted by either pressing the hot water outlet button again when it is emptying or when it has completed a 25-second cycle and the button has not been pressed again. The warning screen disappears when the emptying cycle has been completed.

3.7 Clean cappuccino unit (according to model)

This warning screen shows when approximately an hour has passed between a cappuccino or milk service and the next service.

A cleaning cycle must be carried out by pressing the corresponding “clean” button on the cappuccino and milk service panel. (“CAPPUCCINO CLEAN CYCLE START” appears on the screen).

When the clean button is pressed again the text “CAPPUCCINO CLEAN CYCLE FINISH” appears on the screen.

To eliminate the display screen, press the **PAS** key.



NOTE: Remove the tube from the milk container before starting the cleaning cycle.

3.8 Overheating

The system has a safety mechanism in case of failure in the temperature control that may cause the pressure to increase in the boiler.

This safety mechanism is activated when, for whatever reason, the temperature of the boiler surpasses the maximum temperature by more than two degrees, or when the programmed temperature is lowered by more than two degrees.

At this moment the screen shows the text, "OVERHEATING, CALL SERVICE TECHNICIAN", although the machine can continue working, since the system has a parallel control, which will maintain the machine in controlled working order until the Technical Service carries out the repair. The screen disappears when the temperature drops to the maximum level and appears again when the temperature surpasses the maximum temperature by two degrees again.



3.9 Programming

This screen is shown whenever in the portion programming cycle and disappears when leaving this cycle.



3.10 Clean Groups

This screen appears when the quantity of coffees made reaches the programmed amount (see point g in section 3 of "AUTHORISED PERSONNEL ONLY" screens).

This screen will only cease to appear when a cleaning cycle has been carried out and will never appear if this function has not been authorised.

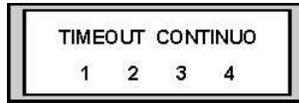


EQUIPMENT CLEANING CYCLE PROCEDURE

- 1.- Turn the general switch to the ZERO position
- 2.- Place a filter holder with a blind filter in each group.
- 3.- Keeping the key pressed for 2 LARGE coffees of any group, turn on the general switch to position ONE. The indicator of the above-mentioned key will light up and after about 4 seconds the cleaning cycle will start up showing a screen with the message "GROUP CLEAN CYCLE START". When the cycle has finished it will show a message on the screen: "GROUP CLEAN CYCLE FINISHED".
- 4.- To leave the group cleaning cycle and erase the message displayed on the screen, turn the general switch to the ZERO position.

3.11 Continuous Timeout

This screen appears when there exists a continuous coffee preparation of for more than 5 minutes



NOTE: The display shows the number of the group which has caused the message to appear.

3.12 Boiler heating error

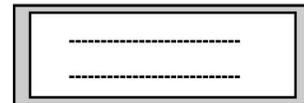
This screen appears when for any reason the machine detects that the boiler temperature should increase but it does not happen.



3.13 "Maintenance"

When the number of coffees prepared is greater than the number of coffees entered in the "AUTHORISED PERSONNEL ONLY" maintenance screen group (refer to point 7, sections a, b, c), the following screens appear.

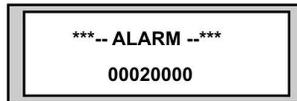
This happens every time a coffee is made, unless the quantities are reprogrammed or the counters were disabled.



(PROGRAMMABLE TEXT)

3.14 Last configuration lost

This screen appears when the last configuration has not been successfully entered and the previous configuration is used without the latest modifications. The lost of the configuration can be due to dosing or parameter values changed by the display.



3.15 Relay activation error

This screen appears when there exists an error in the system that activates the relays in the electronic control of the machine.



4. SCREENS FOR AUTHORISED PERSONNEL ONLY

Contents

- 1 Consult state of machine
- 2 Set up
- 3 Distribution time
- 4 Performance record
- 5 Program publicity
- 6 Select language
- 7 Maintenance

To enter the "AUTHORISED PERSONNEL ONLY" screen, use the following procedure:

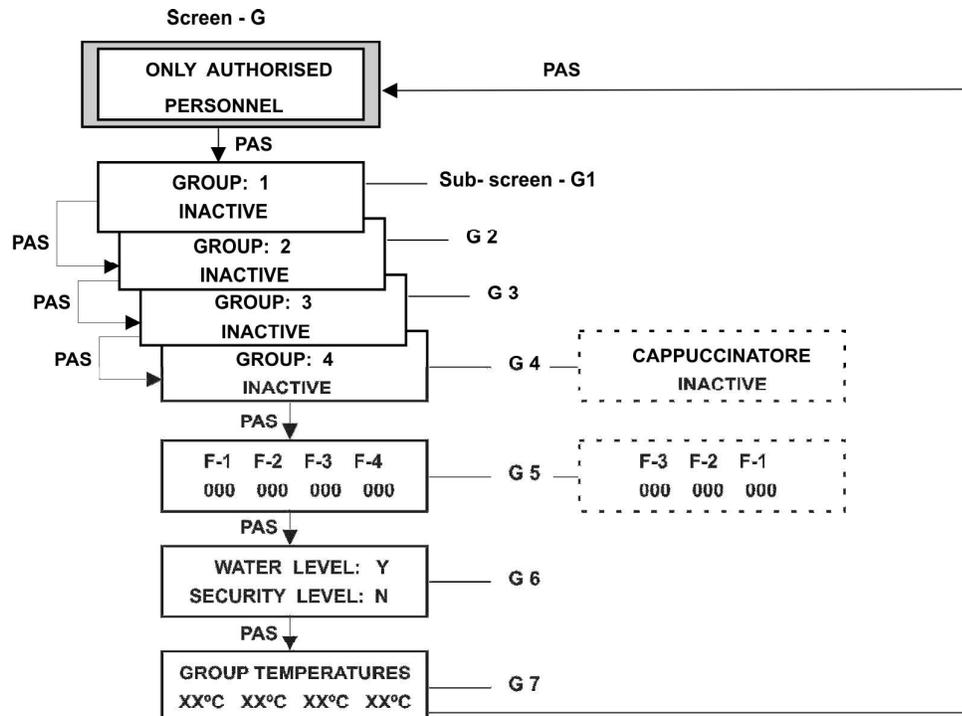
- 1 Press the **MOD** key until the "TIMER PROGRAMMING" screen is displayed.
- 2 Keep the **CAM** key pressed (4 sec.) (Screen -G).

Screen - G



1. Consult state of the machine

From the "AUTHORISED PERSONNEL ONLY" screen, press the **PAS** key the number of times necessary until the information required is displayed.



Sub-screens G1 to G4 show the functioning of the panel buttons corresponding to the group selected (**Sub-screen - G1** corresponds to group 1 and so on).

Sub-screen G5 shows the total number of pulses of each volumetric meter every time a dosage of coffee is made.

1 Pulse = approx. 0.50 cm³

Sub-screen G7 shows the temperature of each one of the distribution groups (depending on the model).

NOTE: Sub-screen G4 shows the state of the panel corresponding to distribution group 4 in the conventional machines (fourth position counting from the left) and the state of the panel corresponding to the cappuccino maker in the machines with automatic cappuccino included.

2. Parameters

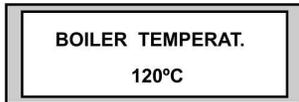
Screen - H



This setup screen (**Screen H**) leads to a group of sub-screens (from H1 to H11) in which the operating parameters of the machine are memorised, these being:

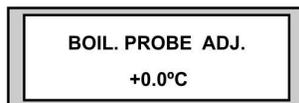
- a) Boiler temperature (**Sub-screen H1**) adjustable between 100° and 123°

Sub-screen - H1



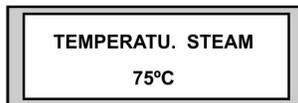
- b) Boiler probe adjustment (**Sub-screen H2**) adjustable between +/- 9.9

Sub-screen - H2



- c) Steam temperature (**Sub-screen H3**) adjustable between 60° and 85° only in versions with adjustable temperature steam nozzle.

Sub-screen - H3

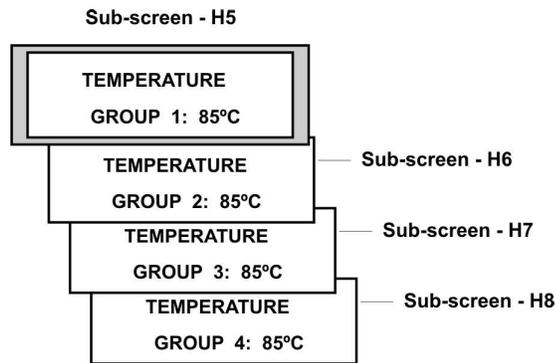


- d) Steam probe adjustment (**Sub-screen H4**) adjustable between +/- 9.9

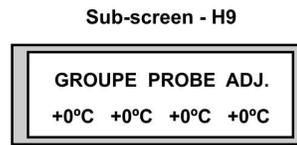
Sub-screen - H4



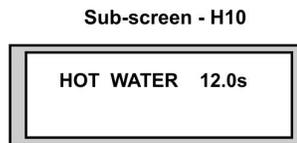
- e) Temperature adjustment for each one of the groups can be made on H5, H6, H7, H8 sub-screens



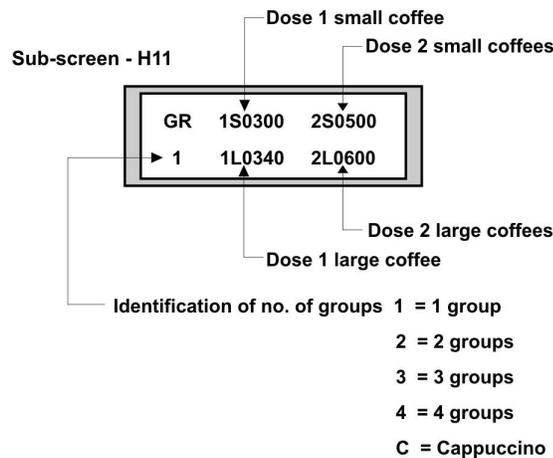
- f) Groups probe adjustment (sub-screen H9) adjusted between ± 1 to ± 9



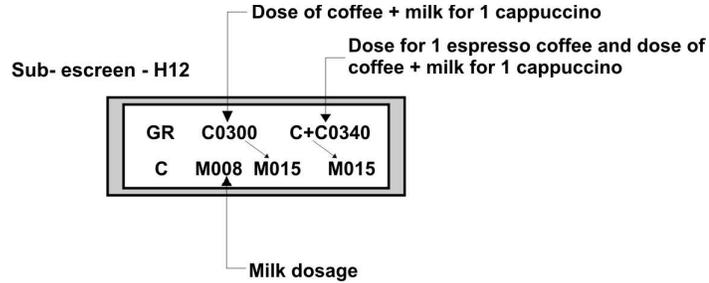
- g) Hot water dosage time (**Sub-screen H10**) adjustable from 0 to 30 seconds



- h) Flowmeter pulses for coffee dosage (**Sub-screens H11, H12, H13 and H14**). On each of these the pulses programmed for each of the dosages in each group is displayed. These dosages are adjustable from the display to between 1 and 8000 pulses.

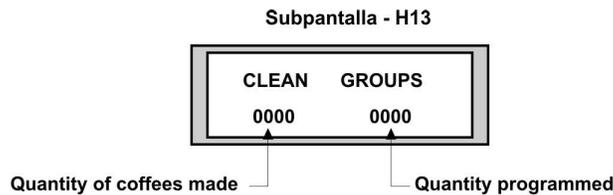


NOTE: In the machines with automatic cappuccino maker, **Screen H12** corresponds to the cappuccino maker panel, and on it is shown the pulses for the doses of coffee and the dosage time for the milk, as well as the dosage time of milk only.

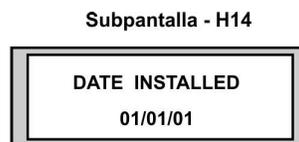


The pulses for coffee dosage are adjustable between 1 and 4,000 impulses and the milk dosage times are adjustable between 0 and 180 seconds.

- i) Number of coffees before carrying out cleaning of groups (**Sub-screen H13**) shows the number of coffees programmed to carry out the cleaning of the groups and the number of coffees made since the last cleaning process. If the quantity programmed is ZERO the associated message will never appear.



- j) Date of installation of the machine (Sub-screen H14) shows the date of installation of the machine, according to the data recorded.



MODIFICATION OF THE DATA

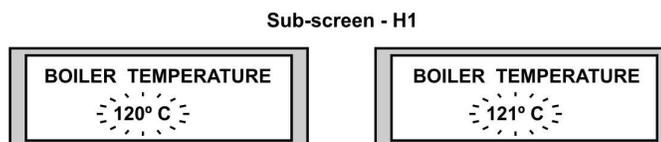
From the "SET UP" screen press the **PAS** key the number of times necessary to display the required information (see example).

- 1- Press the **CAM** key. The digits to change blink.

Pressing the **CAM** key repeatedly the cursor moves around the screen over the positions that can be modified.

- 2- The **SET** key is used to change the blinking data.

Example:



- 3- Once the data has been modified on a screen, press the **PAS** key to confirm the changes made.

3 **Brewing timer**

This screen (**Screen I**) enables the brewing timer of group 1 to be displayed when programming the dosage and displays the brew timer of each one of the groups.

Screen - I



3.1 Display of brew time of group one

- 1.-- From **Screen I** "BREWING TIMER" press the **PAS** key. **Sub-screen I1** will be shown, "BREW TIME".

Sub-screen - I 1



- 2.- Press the button for the dosage required of group 1 (1S, 1L, 2S, 2L) and the memorised brew time when the initial programming of the machine was carried out and the brew time at that moment will be shown.

Sub-screen - I 1

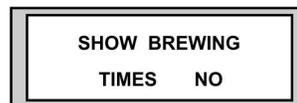


NOTE: If the machine has not been reprogrammed and still has the "default" dosages, the memorised time is 000.

3.2 Displaying the brewing times

- 1- From **Screen I** "BREWING TIMER" press the **PAS** key until **Sub-screen I2** appears, "SHOW BREWING TIMES"

Sub-screen - I 2



- 2- Press the **CAM** key, the word NO will flash intermittently
- 3- Press the **SET** key, the word YES will appear
- 4- Press the **PAS** key to confirm the change.

From this moment on every time a coffee is made a screen will appear showing the brew time.

NOTE: To stop displaying the brew times, carry out the same procedure as for displaying it.

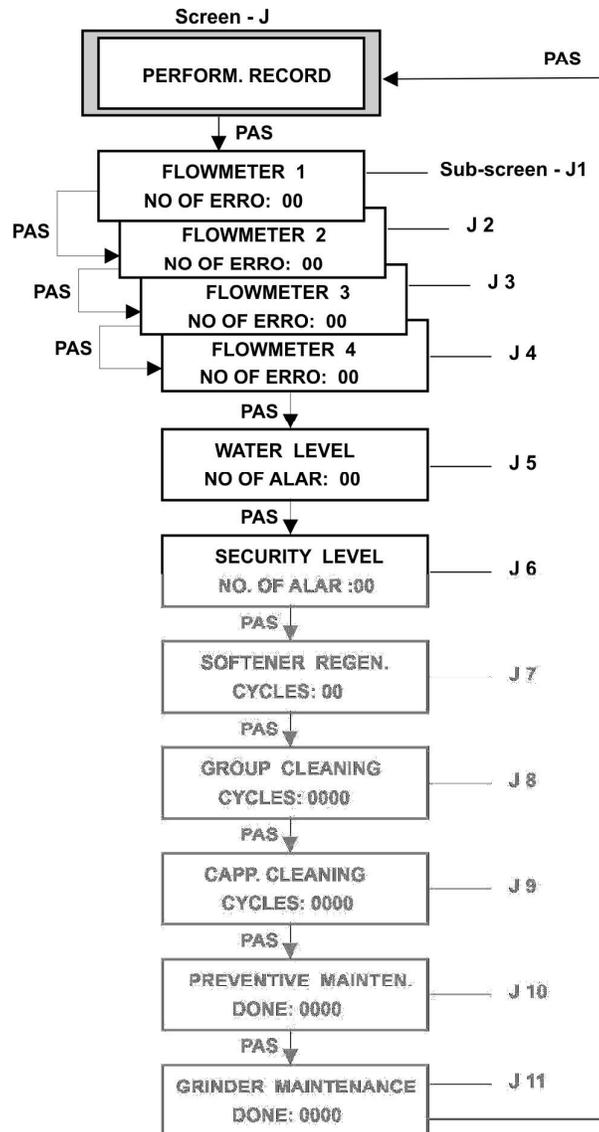
4. Performance record

Shows the incidents that have occurred in the machine (errors in flowmeters, level alarm, etc.).

4.1 Consult statistical record.

From "AUTHORISED PERSONNEL ONLY": (**Screen - G**).

1. Press the **MOD** key until displaying the "PERFORM. RECORD" screen (**Screen - J**).
2. Press the **PAS** key the number of times necessary until displaying the required sub-screen.



Sub-screens J1 to J4 show the number of incidents detected by the flowmeters.

Sub-screen J5 shows the incidents detected in the normal working level.

Sub-screen J6 shows the incidents due to excess of water in the boiler.

Sub-screen J7 shows the number of regenerations undertaken of the water softener.

Sub-screen J8 shows the group cleaning cycles undertaken.

Sub-screen J9 shows the number of cappuccino maker cleaning cycles undertaken.

Sub-screen J10 shows the number of preventive maintenance operations performed.

Sub-screen J11 shows the number of grinder maintenance operations performed.

4.2 Setting the incidents to zero

From the "PERFORM RECORD" screen (**Screen - J**) press the **PAS** key until reaching the sub-screen required for setting to zero.

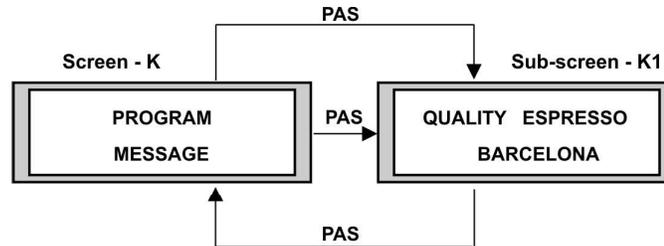
1. Press the **CAM** key (the digits on the display flash).
2. Press the **SET** key (the meter goes to zero)
3. Press the **CAM** key (the digits on the display stop flashing)

5. Program message

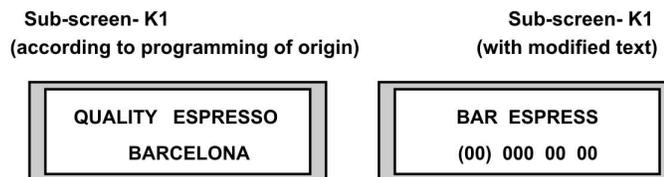
This screen is programmed at origin according to **Screen A**.

To program a new text carry out the following procedure:

From the "AUTHORISED PERSONNEL ONLY" screen (**Screen - G**)



1. Press the **MOD** key until the "PROGRAM MESSAGE" screen is displayed (**Screen-K**)
2. Press the **PAS** key, sub-screen K1 appears with the current text
3. Press the **CAM** key, the cursor appears, to move the cursor press the **CAM** key again.
4. Press the **SET** key to modify the value of the space occupied by the cursor.
5. Repeat steps 1 and 2 until programming the desired text.
6. Press the **PAS** key to confirm.

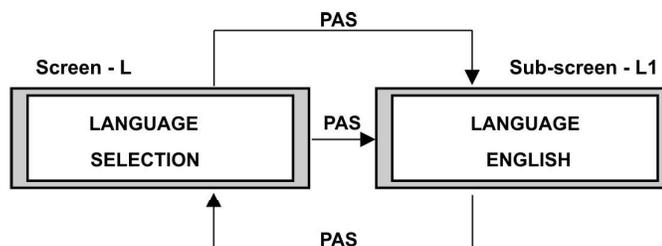


6. Select language

Select the display communication language.

From the "AUTHORISED PERSONNEL ONLY" screen (**Screen - G**).

1. Press the **MOD** key until displaying the "SELECT LANGUAGE" screen (**Screen- L**).
2. Press the **PAS** key (**Sub-screen L1** appears with the language of origin selected).
3. Press the **CAM** key (the language currently set flashes).
4. Press the **SET** key to select the language required (Spanish, English, French, Italian, Portuguese, German, Catalan, Basque and Galician).
5. Press the **PAS** to confirm.
6. Press the **MOD** key to return to the main screen.



7. Maintenance

Screen - M



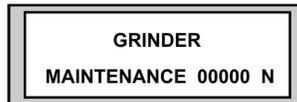
The maintenance screens are those which tell us when the machine needs a maintenance.

The maintenance screen leads us to a group of screens (from M1 to M4).

- a) The sub-screen M1 allows us to set a number of coffees. When this number is exceeded, the "PREVENTIVE MAINTENANCE" warning screen is displayed.

NOTE: To enable this function, change the **N** letter next to the number of coffees to an **S** letter. To disable the feature, replace the **S** with an **N**.

Sub-screen - M2



- b) The sub-screen M2 operates like the M1 sub-screen, but it displays the warning screen "Check grinder".

NOTE: To enable or disable this feature, act like in the M1 sub-screen.

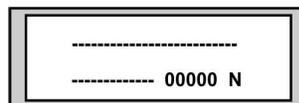
Sub-screen - M2



- c) The sub-screen M3 works like the M1 and M2 sub-screens, but the text can be programmed by the user.

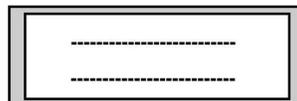
NOTE: To enable or disable this feature, act like in the M1 sub-screen.

Sub-screen - M3



- d) The sub-screen M4 allows programming the M3 sub-screen warning text

Sub-screen - M4

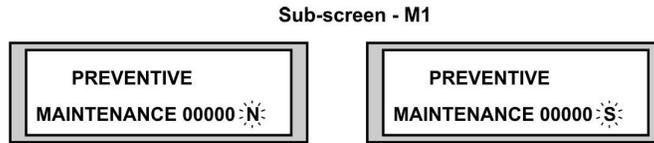


Data Modification.

On the "MAINTENANCE" screen, press the PAS key as many times as needed to view the desired information (see the example.)

1. Press the CAM key (the unit digit blinks.) By pressing the CAM key we go through the screen fields that can be changed.
2. Press the SET key to change the blinking data

Example:



3. Once the screen data is modified, press the PAS key to confirm the changes.