

ITALIAN ESPRESSO COFFEE MACHINES SINCE 1947
ELEKTRA is a brand of VEA GROUP S.P.A.

EVOK

Professional coffee machines 2GR HIGH/MILKER - 3GR HIGH/MILKER



EN

SERVICE MANUAL





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1. INTRODUCTION

1.1 Manufacturer identification data

THE MANUFACTURER:

VEA GROUP S.P.A.

OPERATIONAL FACILITIES:

VEA GROUP S.P.A.

Via Industriale, 1 - 24040 Chignolo d'Isola (BG) Italy Tel: +39 035 4949555 info@veagroup.com veagroup.com



WARNING:

It is necessary for the user to read first the Quick Guide supplied with the machine

1.2 Other addresses:

CARIMALI SERVICES

All machine manuals are available for download in the reserved area in: https://service.vea.ventures/it service@carimali.com

CARIMALI ITALIA

Via De Gasperi 17/19, 20020 Lainate (MI) Italy Tel: +39 02 9374740 italia@carimali.com carimalitalia.com

CARIMALI CHINA

1801 Pangjin RD, Building T2, Wujiang Suzhou China 215200 Tel: +86 0512-63199566 suzhou.catering@carimali.com carimalichina.com



WARNING:

It is necessary for the user to read first the Quick Guide supplied with the machine



1.3 Recipients



SKILLED TECHNICIAN:

Qualified person that, due to a deep technical knowledge of the machine and all the kinds of intervention concerning safety, is in charge of the installation, adjustment, advanced use and maintenance.

1.4 Symbols



HAZARD:

Indicates situations of severe danger that can seriously endanger the health and safety of individuals.



WARNING:

Indicates the need to take appropriate action so as not to endanger the health and safety of individuals and not to cause damage to the machine or the environment.



IMPORTANT:

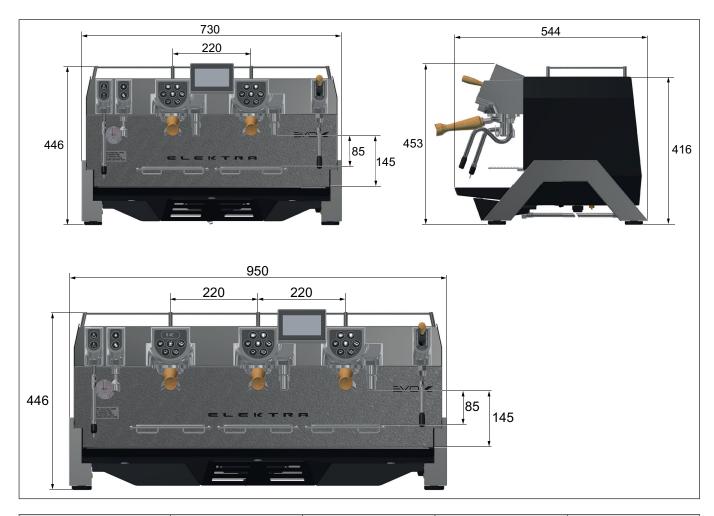
Indicates technical information of particular importance that should not be ignored.





2. TECHNICAL DATA

2.1 Dimensional drawings (in mm)



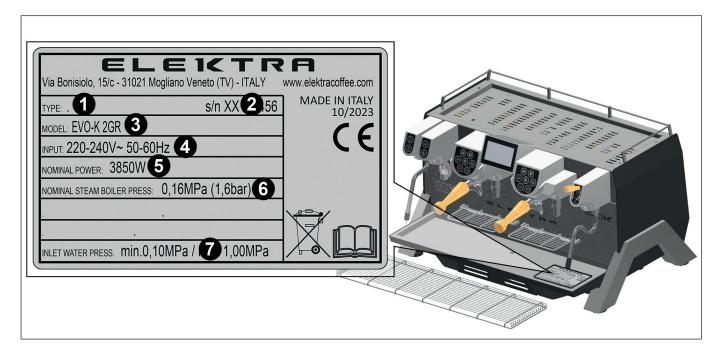
Description	2GR HIGH	2GR HIGH + MILK- ER	3GR HIGH	3GR HIGH + MILK- ER
DIMENSIONS	730x450x580 mm (LxHxP)	730x450x580 mm (LxHxP)	950x450x580 (LxHxP)	950x450x580 (LxHxP)
NET WEIGHT	62 Kg	64 Kg	78 Kg	80 Kg
HEIGHT OF THE WORKING AREA	145 mm	145 mm	145 mm	145 mm
GROUP - NO. OF SE- LECTION BUTTONS	5	7	5	7
PROGRAMMING DIS- PLAY	Touch 4.3" - Col- our graphic			
BOILER CAPACITY	111	111	161	161



Description	2GR HIGH	2GR HIGH + MILK- ER	3GR HIGH	3GR HIGH + MILK- ER
BOILER POWER RE- SISTANCE	2800 o 3500W (MONO), 4500W (TRI)	2800 o 3500W (MONO), 4500W (TRI)	4000W (MONO), 6000W (TRI)	4000W (MONO), 6000W (TRI)
PROTECTION OF BOILER RESISTANCE	Resettable bulb	Resettable bulb	Resettable bulb	Resettable bulb
	thermostat	thermostat	thermostat	thermostat
GAUGE	Double scale from	Double scale from	Double scale from	Double scale from
	0 to 2 bar - from 0	0 to 2 bar - from 0	0 to 2 bar - from 0	0 to 2 bar - from 0
	to 16 bar	to 16 bar	to 16 bar	to 16 bar
VOLTAGE CURRLY	Single-phase	Single-phase	Single-phase	Single-phase
	220/240 1Ph	220/240 1Ph	220/240 1Ph	220/240 1Ph
	50/60Hz	50/60Hz	50/60Hz	50/60Hz
VOLTAGE SUPPLY	Three-phase	Three-phase	Three-phase	Three-phase
	380/400V 3Ph+N	380/400V 3Ph+N	380/400V 3Ph+N	380/400V 3Ph+N
	50/60Hz	50/60Hz	50/60Hz	50/60Hz
CONTROL UNITS VOLTAGE	24Vdc	24Vdc	24Vdc	24Vdc



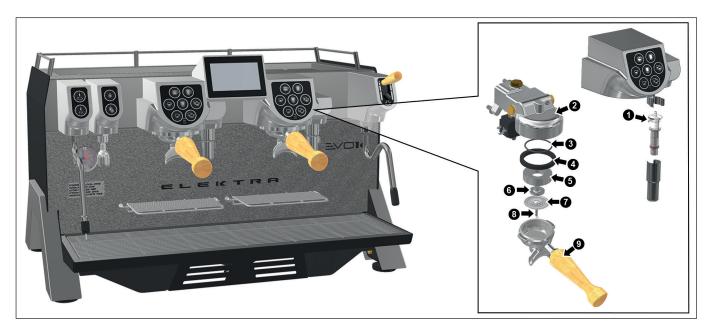
2.2 Machine identification data and nameplates



1	Туре	5	Nominal power
2	Serial number	6	Nominal steam boiler press
3	Model	7	Inlet water press
4	Input		



2.3 Coffee group/milker



1	Milker	6	Shower screen distributor
2	Coffee unit	7	Rounded shower screen
3	OR gasket	8	Screw
4	Filter holder gasket	9	Filter holder
5	Shower screen holder		

2.4 Fresh milk system

2.4.1 Default values

The default values must be considered as only general orientation. Not all systems work in the same way and therefore it is possible that they are modified. The values are set for a milk temperature of 4° C.



IMPORTANT:

To ensure high quality dispensing, the milk must be kept at a temperature of around 4°C. The higher the temperature, the poorer the result in the cup.

It is essential that the milk circuit is cleaned constantly to avoid poor dispensing quality, machine faults and bacterial growth.





3. INSTALLATION

3.1 Water mains connection

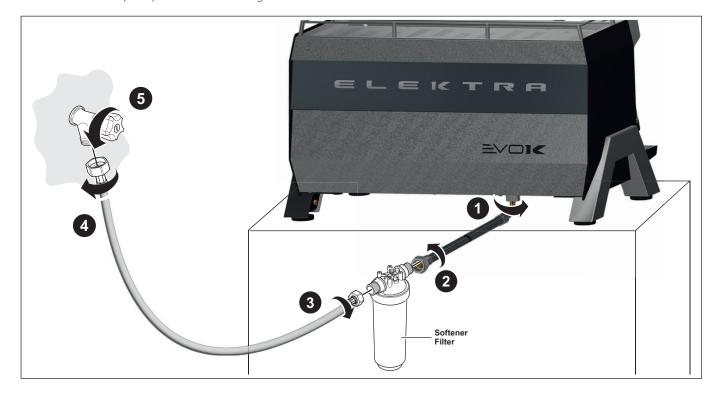


IMPORTANT:

The mains water pressure must never exceed 10 bar (1.0 MPa); if this is not the case a qualified technician must fit a pressure reducer.

To prevent damages to the hydraulic system, the optimal range of the water hardness supplied to the machine by the water mains must be between 7 and 10 French Degrees (4 and 6 German Degrees).

- Before connecting to the water mains, flush the hose with approximately 5 litres of water from the tap.
- For the correct use of the machine, it is essential for the customer to install an external Softener Filter with a water check valve system.
- **Use only** the supply hose supplied with the machine, connecting one end to the machine inlet solenoid valve and the other to the softener filter outlet. Take care not to crush the hose.
- Connect the softener filter to the water tap.
- Make sure the tap is open after connecting the machine to the water mains.





3.2 Connection to the power mains

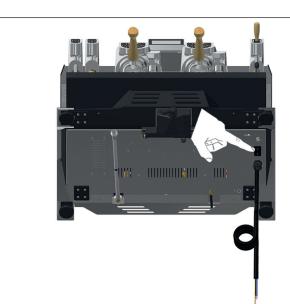


WARNING:

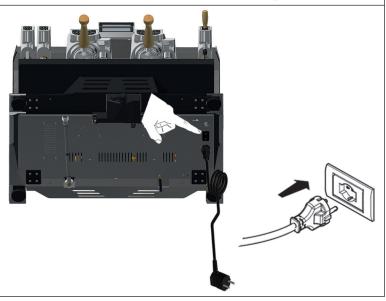
The connection to the electricity mains must be made by a qualified technician in compliance with current regulations. The technician must make sure that the electrical system is properly connected to the earthing system and that the line voltage and frequency correspond to the data shown on the identification plate. Incorrect power supply voltages can cause serious damage to the system and to the machine. The Manufacturer shall not be held responsible for any damage caused if the above instructions are not followed or if the system is not connected to the earthing system.

Depending on the configuration, the machine features:

An output cable without a socket to be connected directly to the electrical panel, making sure that the connection point incorporates an appropriately sized omnipolar disconnecting device (see plate data).



An output cable with a Schuko-type socket to be connected directly to the user's power supply.



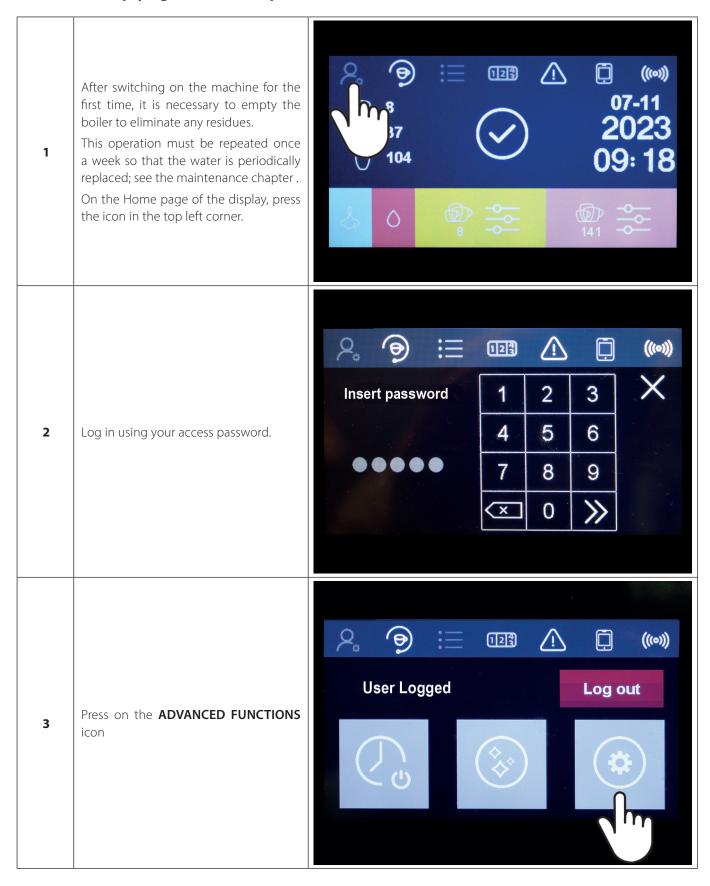


WARNING:

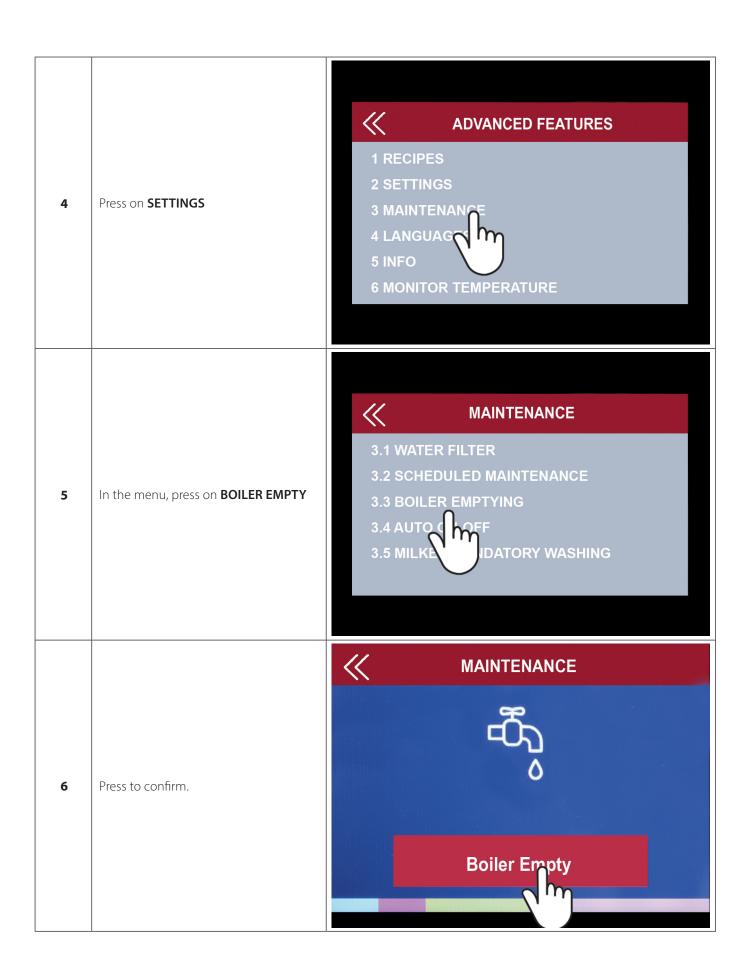
For both types, always remember to turn off the machine via the main switch before making the connection.



3.3 Boiler emptying at first start-up













Turn the tap counter-clockwise to let the 10 water flow from the boiler into the direct to open drain. 123 ((0)) After emptying the boiler, close the tap, put the grid and bowl back in place and switch on the machine. When the machine is started, the follow-11 ing screen appears. Wait a few minutes for the filling procedure to end. During this time, no function is available on the **Boiler Fill** display. 114 At the end of the procedure, the heating screens and then the stand-by screen 12 are displayed, before the machine is switched on; see also paragraph.



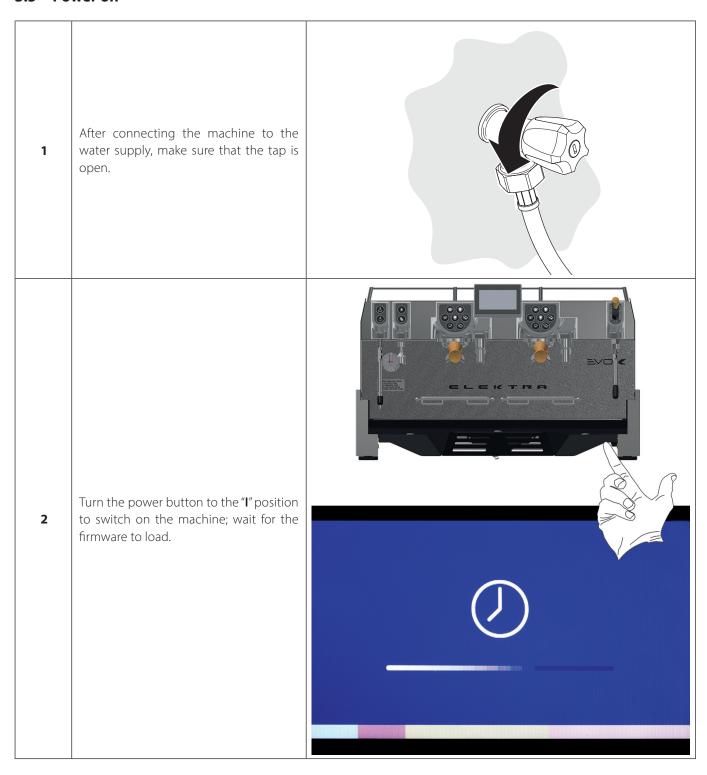
3.4 Circuit flushing at first start-up

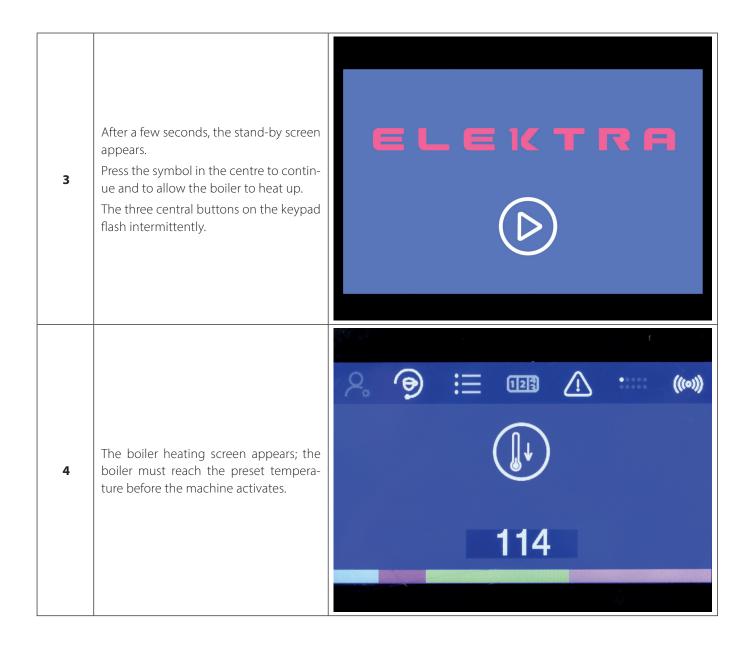
When installed for the first time, dispense 1.5 litres of water from each delivery point by pressing the coffee group head dispensing buttons, those of the hot water wand, and lowering the levers so that steam comes out for 1 minute.



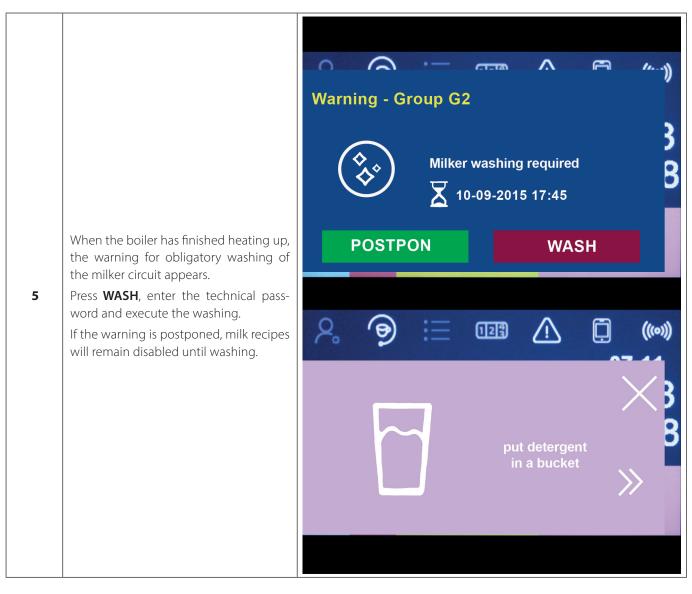


3.5 Power on











IMPORTANT:

It is recommended to perform the washing at the first start.



When completed, the Home screen appears. The machine is ready for dispensing.

When completed, the Home screen appears. The machine is ready for dispensing.



3.5.1 Description of symbols on Home page

The Touch display allows the user to enter some machine modification menus by pressing the icons displayed.

The example shows the one with the maximum display (Expert), interchangeable with the Basic version. The selection can be made only after entering a technician level password.



1	User settings	7	Group head 2 temporary modification
2	Current dispensing status	8	Group head 1 temporary modification
3	Drink counters	9	Barista wand and water indicators
4	Alarm history	10	Grouped Coffee - Coffee+Milk - Milk counters
5	QR codes for WiFi connection	11	Date/time
6	Telemetry connection status	12	Error icon





User settings

Access to machine setting modifications with password.



Drink counters

In this form, scroll through the group heads to read the number of times each drink has been dispensed.

To reset the counters, a technician level password is required.



Alarms history

In this form it is possible to view the list of all alarms that have appeared on the display.

These errors appear in three colarations:

- White: error returned
- Yellow: warning
- Red: critical error



QR codes for WiFi connection

This form allows you to quickly acquire the connection address and browser address for remote access on your Smartphone or another device with a WiFi connection; see also paragraph.



Group head 1-2 temporary modification

By accessing these forms, it is possible to change the recipe without saving the change, which is only used for the current dispensing operation; see also paragraph .



Telemetry connection status

Telemetry data, the network name, connection status etc. can be seen.

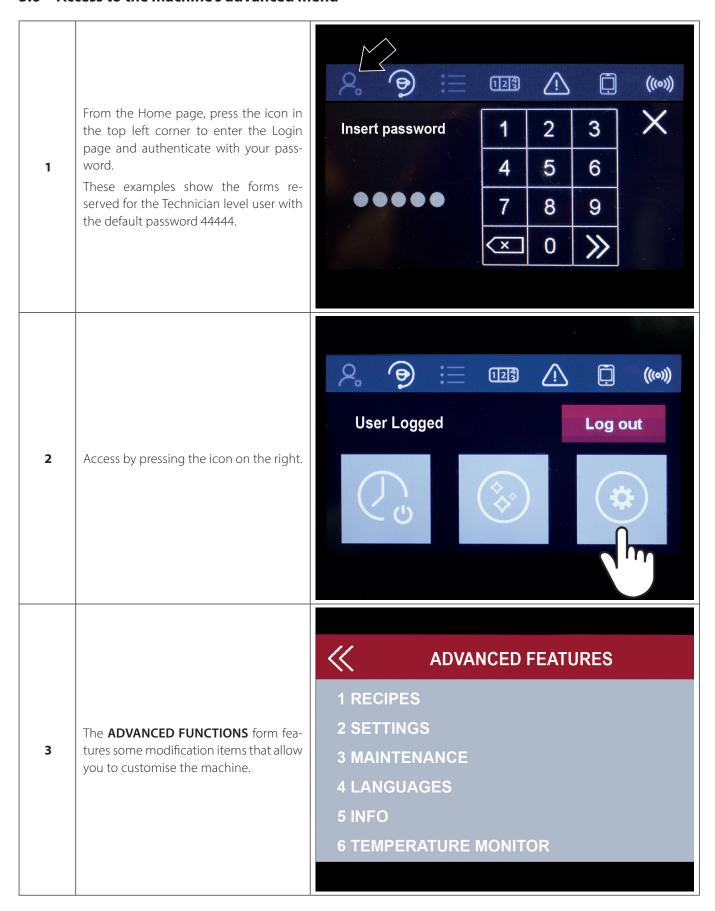


Error detail

By accessing to this form, you can view the error in progress.



3.6 Access to the machine's advanced menu

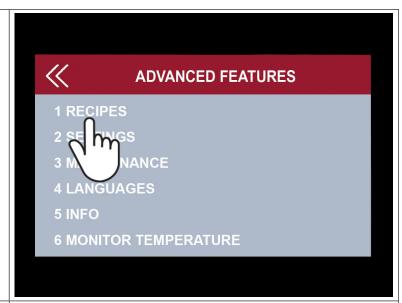




3.6.1 Changes to recipes

The following steps describe how to modify a preset coffee or milk recipe as well as the hot water recipe and the barista wand (if present).

In ADVANCED FUNCTIONS, press 1 RECIPES.



The page displayed may be different from the one shown here, depending on the machine configuration.

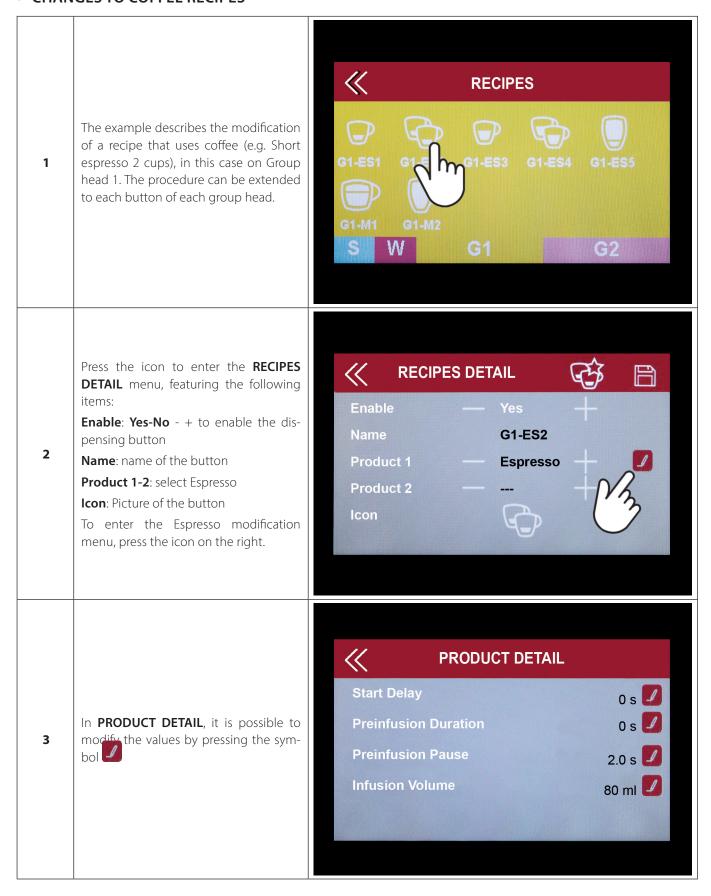
In this case, an Evok with two group heads is shown, recognisable by the initials G1 and G2.

The changes are the same for both group heads.





• CHANGES TO COFFEE RECIPES



4

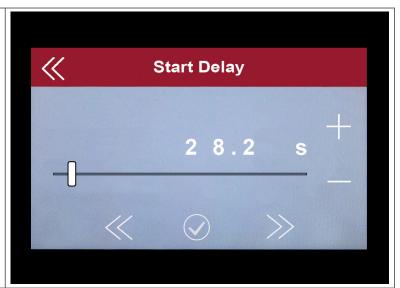
5



Values are edited in the form by pressing the symbol on the right.

Press << >> to scroll within the value, + and - to set the time.

When finished, confirm with



To exit the modification menu, press << until you reach the Login page and go back to the Home page.

However, it is possible to perform one or more test dispensing operations to check the changes.

To perform the test, press the button to the side, representing the drink icon with a star.



Then press the only lit button on the keypad that corresponds to the selected drink.

A test dispensing operation is performed with the changes applied.

To make more changes, repeat the same operations described in the previous steps.

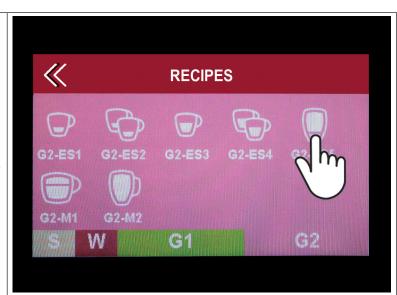


When you are satisfied with the changes, press the icon in the top right corner to save the recipe, which otherwise will not be saved.



• CHANGES TO MILK RECIPES

The example describes the modification of a recipe that uses milk (e.g. Milk), in this case on Group head 2. The procedure can be extended to each button of each group head.



Press the icon to enter the **RECIPES DETAIL** menu, featuring the following items:

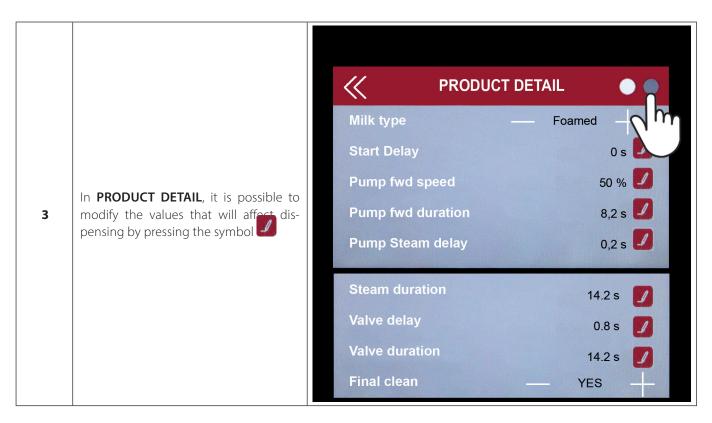
Enable: **Yes-No** - + to enable the dispensing button

Name: name of the button Product 1-2: select Milk Icon: Picture of the button By pressing the symbol

2







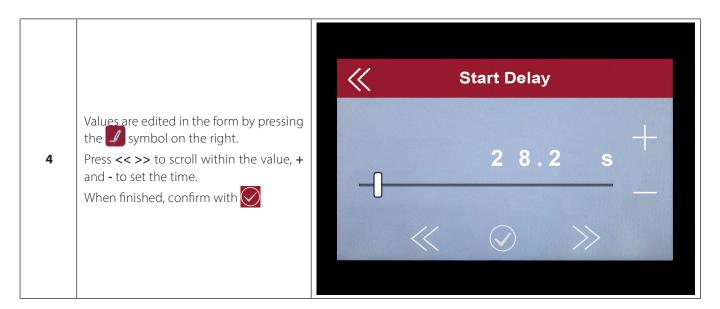


IMPORTANT:]

Depending on the length of the milk suction pipes, the parameters related to the delay on valves opening could be different from standard ones. These parameters are also affected by the speed of the pump.

If the pipes are longer than standard, you have to increase the delay parameters related to steam and air valve sopen.

If the pump runs faster than standard, you have to decrease the delay parameters related to steam and air valves open.



5

To exit the modification menu, press << until you reach the Login page and go back to the Home page.

However, it is possible to perform one or more test dispensing operations to check the changes.

To perform the test, press the button to the side, representing the drink icon with a star.



Then press the only lit button on the keypad that corresponds to the selected drink.

A test dispensing operation is performed with the changes applied.

To make more changes, repeat the same operations described in the previous steps.

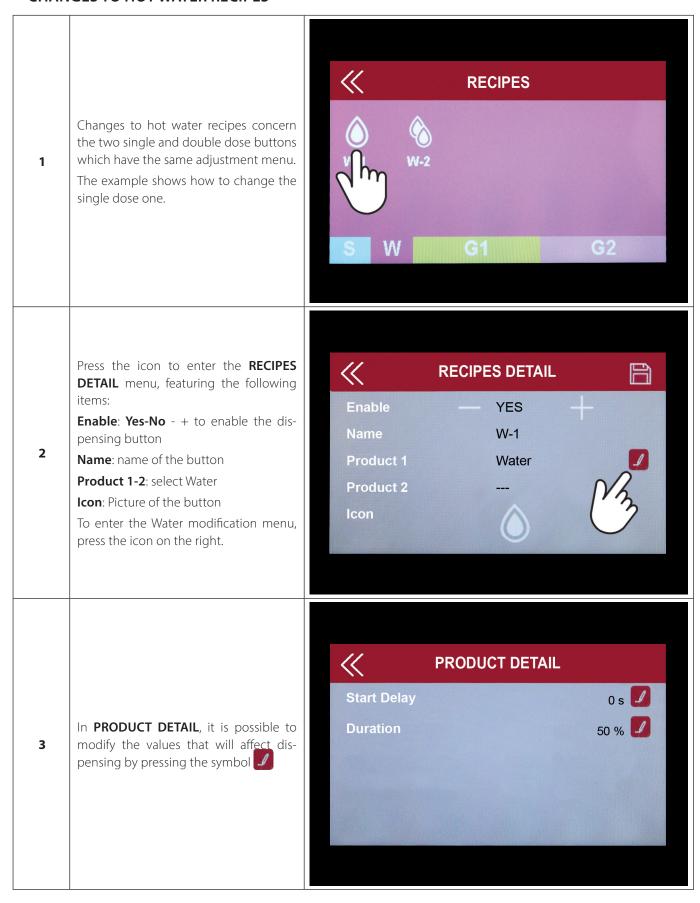


When you are satisfied with the changes, press the icon in the top right corner to save the recipe, which otherwise will not be saved.

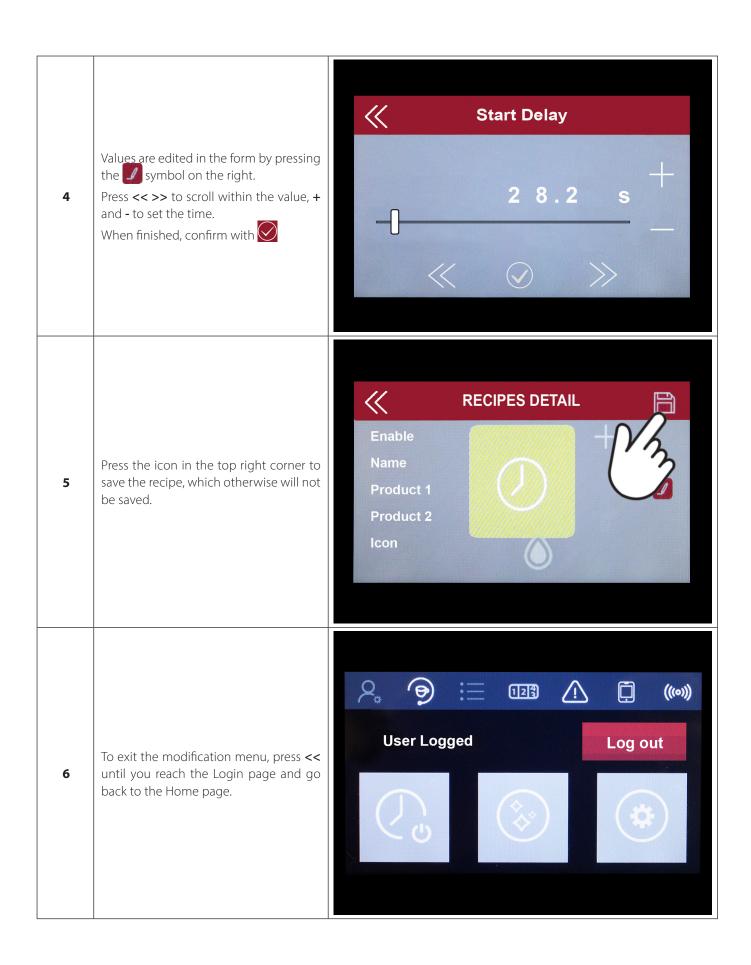




CHANGES TO HOT WATER RECIPES







1

2



• CHANGES TO THE BARISTA WAND RECIPES

The barista wand provides for the adjustment of the two buttons: the top one that creates frothy milk with air, and the bottom one for hot milk only.

The items to be modified for both menus are the same and they allow you to customise the recipe.

For the operation of the barista wand, refer to paragraph.

As shown in the example, enter the frothed milk settings menu.



Press the icon to enter the **RECIPES DETAIL** menu, featuring the following items:

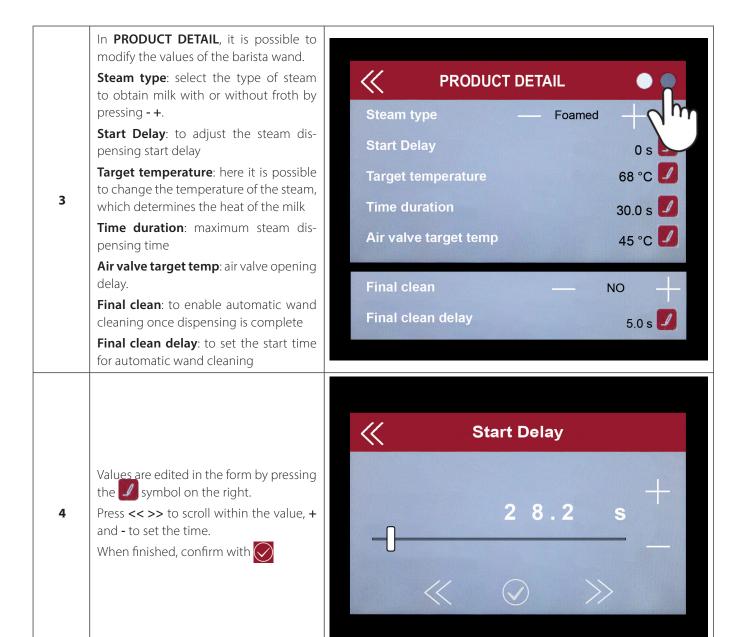
Enable: **Yes-No** - + to enable the dispensing button

Name: name of the button Product 1-2: select Steam Icon: Picture of the button

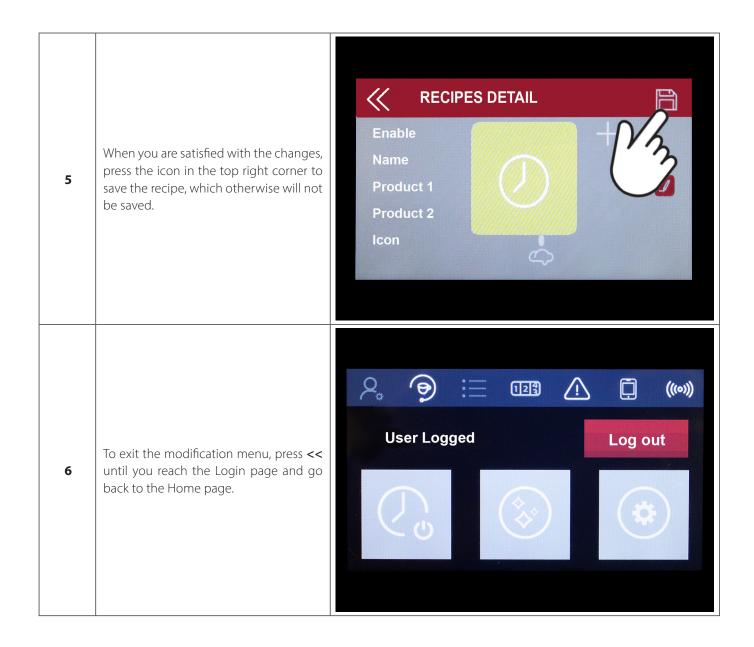
To enter the Espresso modification menu, press the icon on the right.





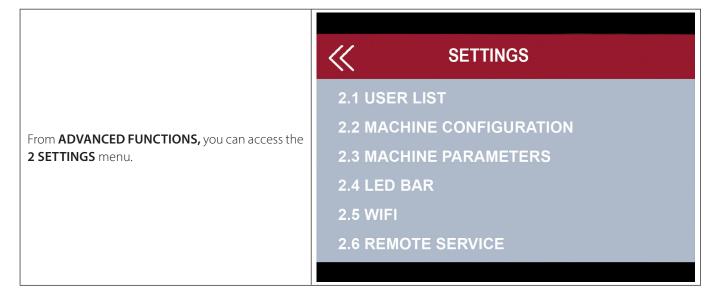




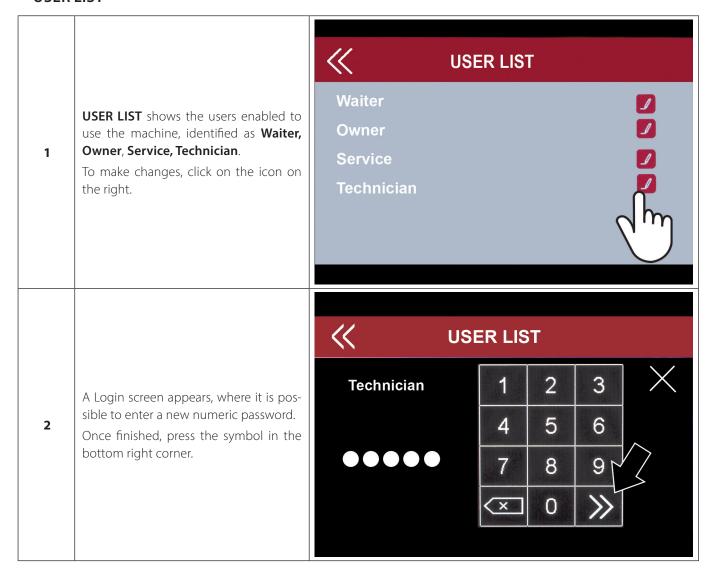




3.6.2 Settings



USER LIST





MACHINE CONFIGURATION

This form allows you to configure the machine. Items that can be modified with + - are the following:

Machine model: Machine model number

Type of machine: Number of units available (1GR-2GR-3GR)

Power: Wattage setting (see electrical data plate)

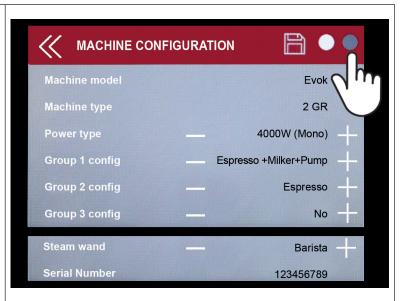
Config. unit 1: (Espresso - Espresso+Milker - Espresso+Milker+Pump)

Config. unit 2: (Espresso - Espresso+Milker - Espresso+Milker+Pump)

Config. unit 3: (Espresso - Espresso+Milker - Espresso+Milker+Pump)

Steam wand: Barista - Standard - No (not present)

Serial number: Machine serial number





MACHINE PARAMETERS

User interface type: choose between the two modes viewable EXPERT and BASE

Colours Pattern: choose among display graphics modes

Timezone: choose between the various time zones available

Edit date and time: to set the current date and time (If the machine is connected to CARIBOX, it will not be possible to set the date and time manually.)

Steam target temperature: temperature regulation of the boiler

Energy save temperature: boiler temperature regulation in power save

Energy save timeout: time of reaching power save activation. If set to 0, the power save is deactivated.

Milk rinse startup delay: delay in seconds of the first automatic rinsing after the execution of the recipe

Milk rinse interval: adjustment of rinsing repeat intervals

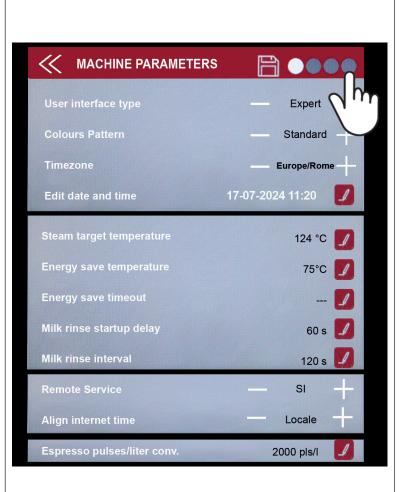
Remote Service: enables or disables telemetry

Align internet time: set the time alignment mode from the Internet

Espresso pulses/litre conv.: number of pulses/litre of volumetric sensor

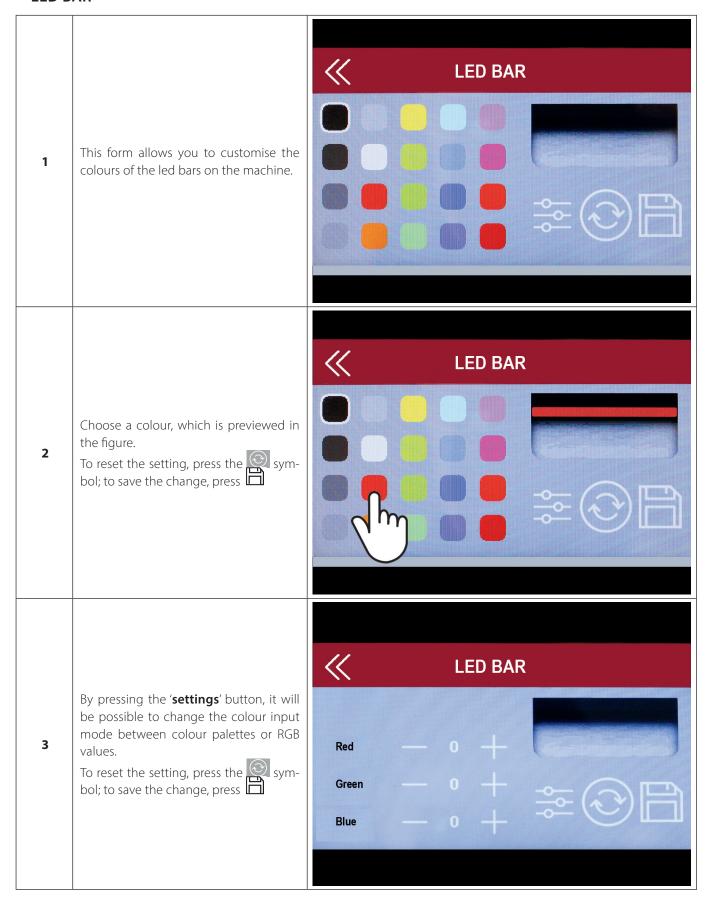
Lavaggio milker: durata rimepimento: determinare tempo riempimento recipiente con detergente.

Lavaggio milker: numero risciacqui: imposta numero totale di risciacqui per terminare la procedura di lavaggio.



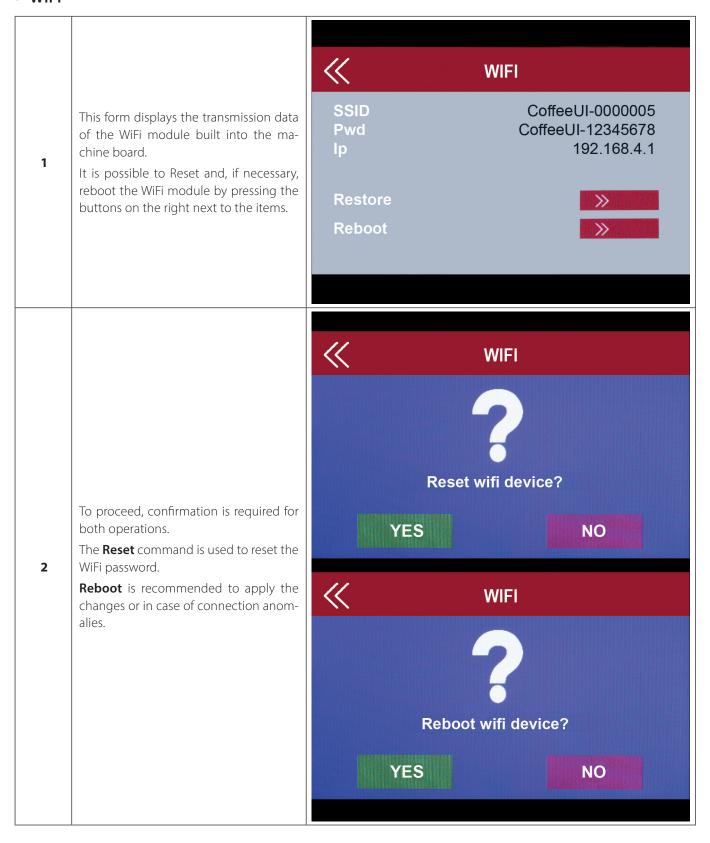


• LED BAR



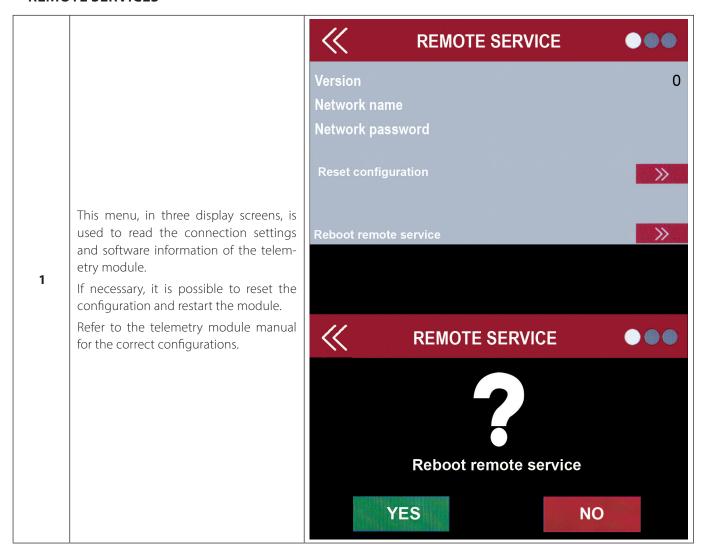


WIFI



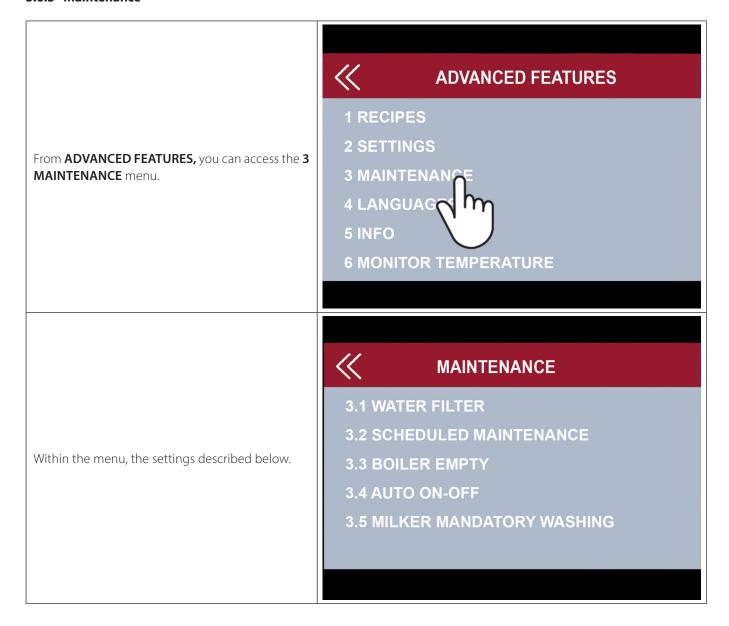


REMOTE SERVICES



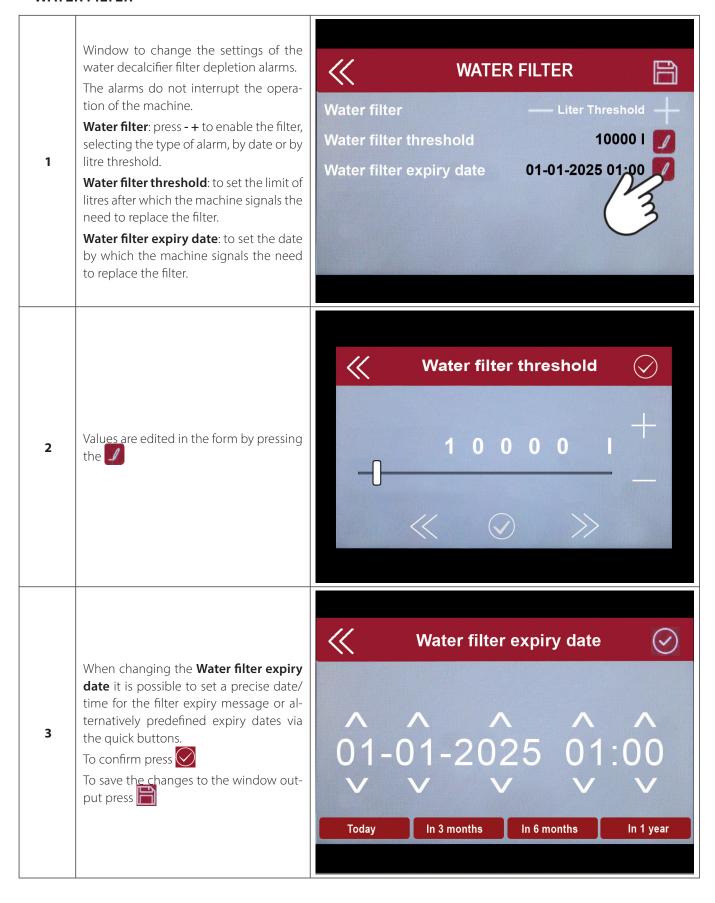


3.6.3 Maintenance



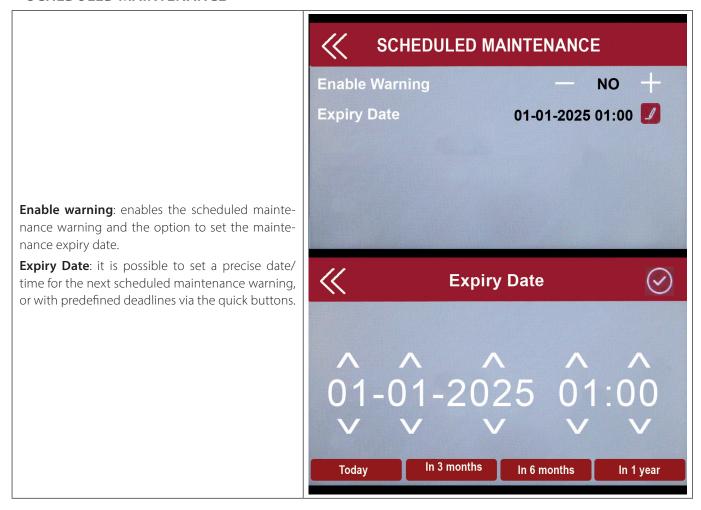


WATER FILTER





SCHEDULED MAINTENANCE



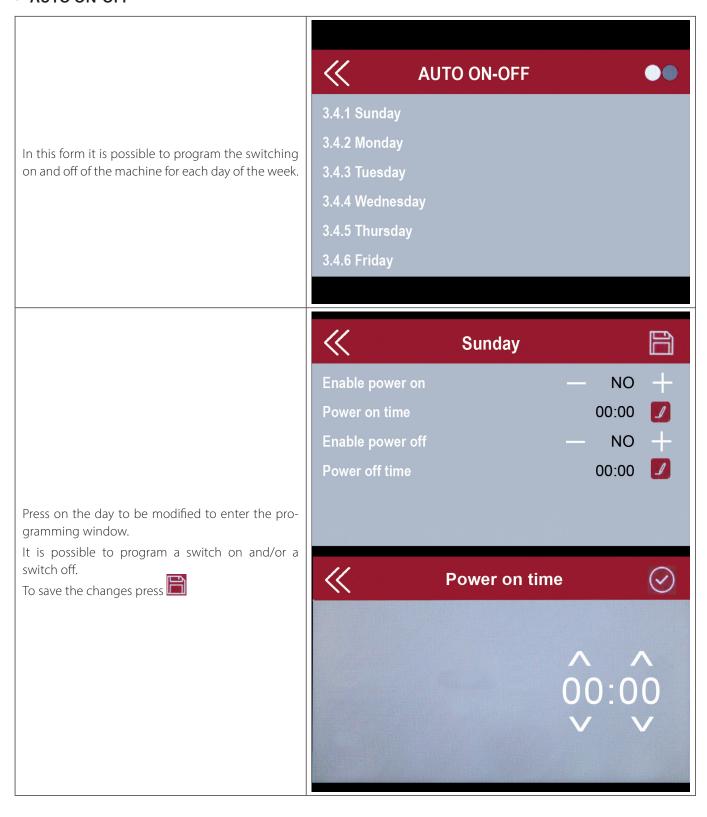
BOILER EMPTYING

This procedure must be carried out when the machine is started-up for the first time and it is described in detail in the machine switch-on procedure; see paragraph "3.3 Boiler emptying at first start-up" on page 15.

To be repeated once a week.

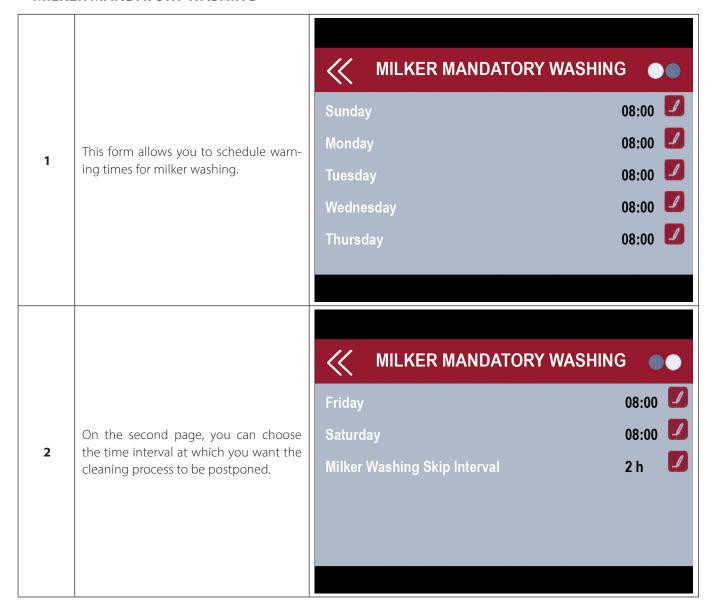


AUTO ON-OFF



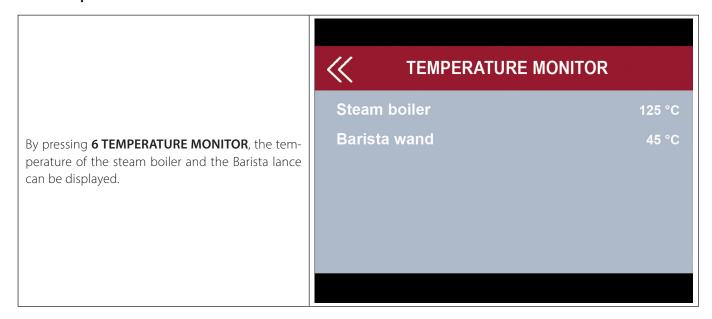


MILKER MANDATORY WASHING





3.6.4 Temperature monitor





3.7 Counter reset

124 (((0)) For a check and a reset of the beverage count, use the form in the Home Page dedicated to counters. In this example, the numbers below the beverage icons correspond to the beverage dispensed. To refresh the page press , to reset the counters press (X) Pressing . This screen appears. General counter: indicate the total number of 1121 ((0)) beverages dispensed. This count cannot be reset. Partial counter: this counter can be reset by press-**General Counter** 16 ing the button below **Reset counter**. **Partial Counter** 0 Water filter counter: indicates in percentage the Water Filter Consumption 99% consumption of the external decalcification filter. When the percentage is close to 0, an alarm (not blocking) appears that requires the filter to be re-**Reset Counters** placed with a new one. Once the filter has been **Reset Water Filter** changed, re-enter this form and press the button **Reset water filter** to confirm the replacement. For both resets you are required to enter your password.



3.8 Remote control

The machine features a WiFi module that allows you to remotely manage, e.g. from your Smartphone or another device with a WiFi connection, some machine functions.

The procedure is very simple; to access, check the connection and log in to the CoffeUI-0005 network with the password provided.

CoffeeUI-0005
No Internet, secured

Properties

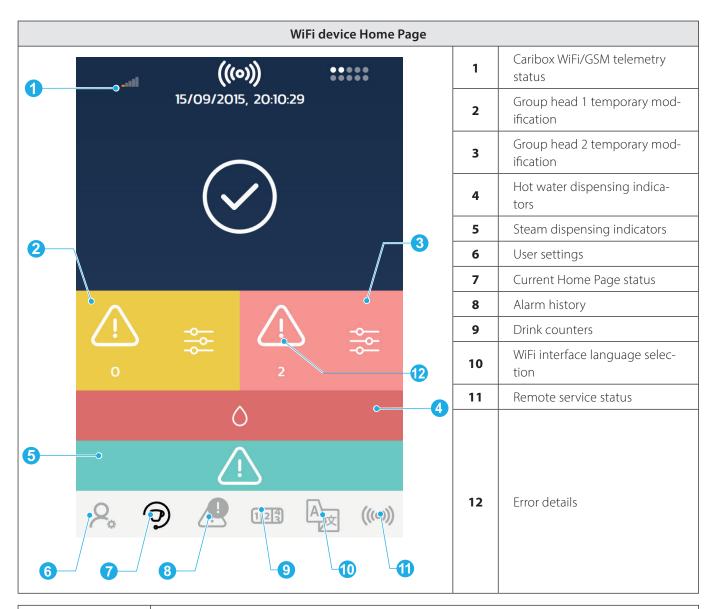
Disconnect



IMPORTANT:

From the remote control, it is not possible to dispense drinks or perform cleaning operations that could compromise the user's safety in any way.







Group head 1-2 temporary modification

From this form, it is possible to make a change that is not saved in the recipe but is applied only for the current dispensing operation.

During operation, a pop-up window with the duration is activated from these icons.

For operating instructions, refer to the same function on the display in paragraph.



Barista wand (if present) - hot water dispensing indicators

From these icons, a pop-up window is activated which shows the TIMER for hot water dispensing and also steam, if the barista wand is present.





Alarms history

In this form it is possible to view the list of all alarms that have appeared on the display.

These errors appear in three colarations:

- WHITE: error returned
- YELLOW: warning
- RED: critical error



Counter menu

The user can access the drinks counter menu, including water and steam dispensing, for consultation only.

By pressing on the X, a reset is possible.



LANGUAGES menu

In this form, it is possible to change the language of the WiFi interface, choosing from those available.

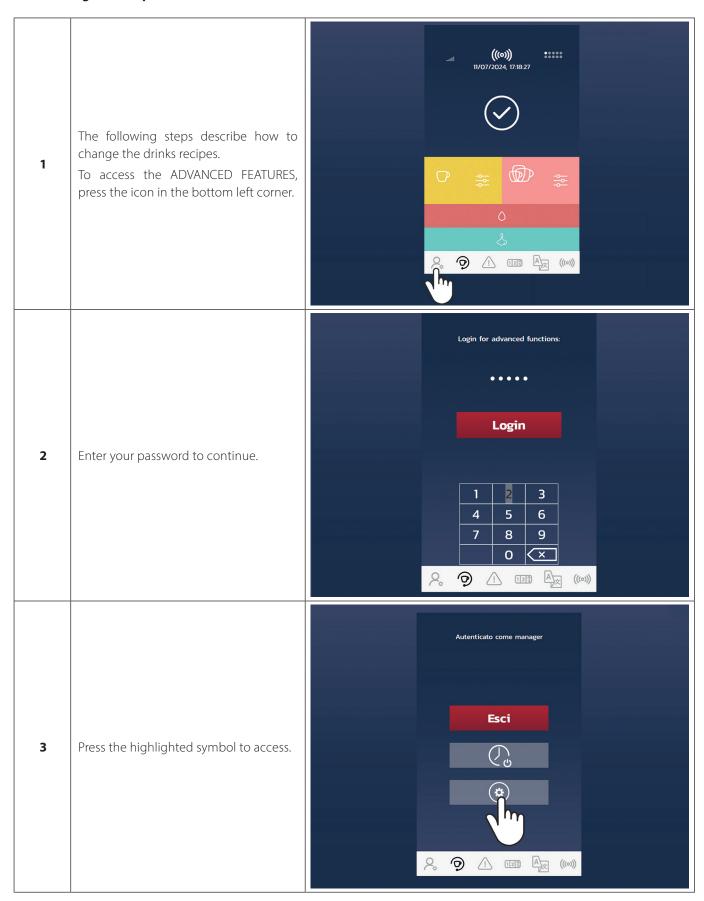


Error detail

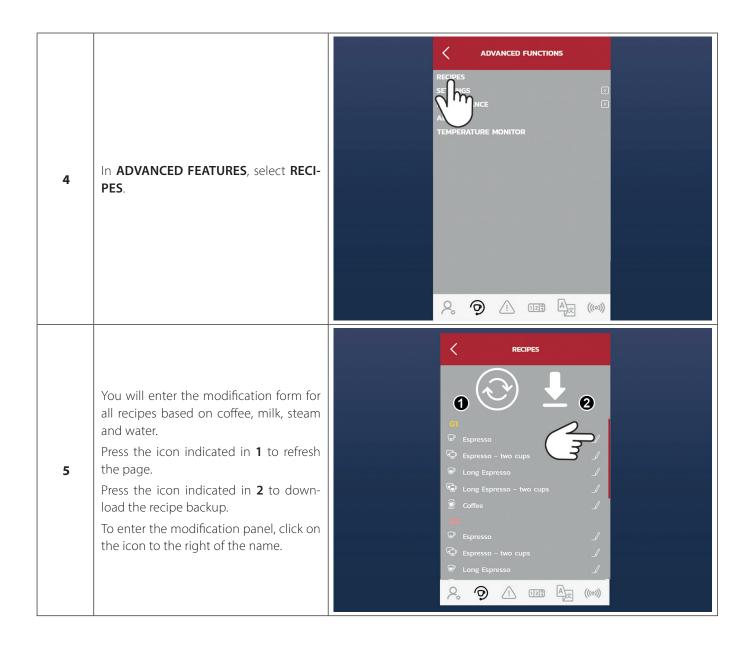
By accessing to this form, you can view the error in progress.



3.8.1 Changes to recipes

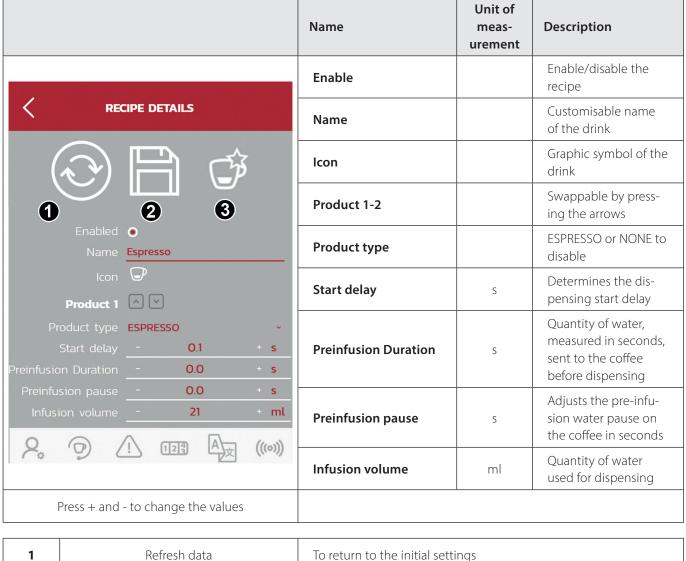








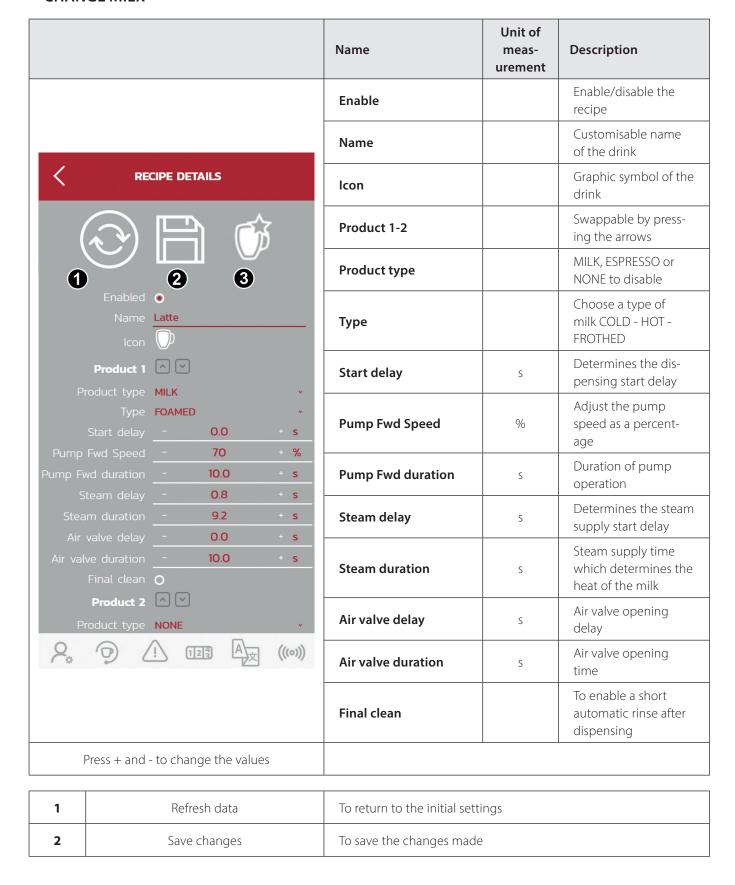
CHANGE ESPRESSO



1	Refresh data	To return to the initial settings		
2	Save changes	To save the changes made		
3	Beverage test	Press to perform a test dispensing with the modified beverage. Press the X to stop		



CHANGE MILK





3	Beverage test	Press to perform a test dispensing with the modified beverage. Press the X to stop
---	---------------	--

• CHANGE HOT WATER

	Name	Unit of meas- urement	Description
RECIPE DETAILS	Enable		Enable/disable the recipe
	Name		Customisable name of the drink
	lcon		Graphic symbol of the drink
Enabled •	Product 1		Swappable by press- ing the arrows
Name Hot water Icon	Product type		WATER or NONE to disable
Product 1	Start delay	S	Determines the dispensing start delay
Start delay <u>- 0.0 + s</u> Duration - 10.0 + s	Duration	S	Water supply duration
Press + and - to change the values			

1	Refresh data	To return to the initial settings			
2	Save changes	To save the changes made			
3	Beverage test	Press to perform a test dispensing with the modified beverage. Press the X to stop			



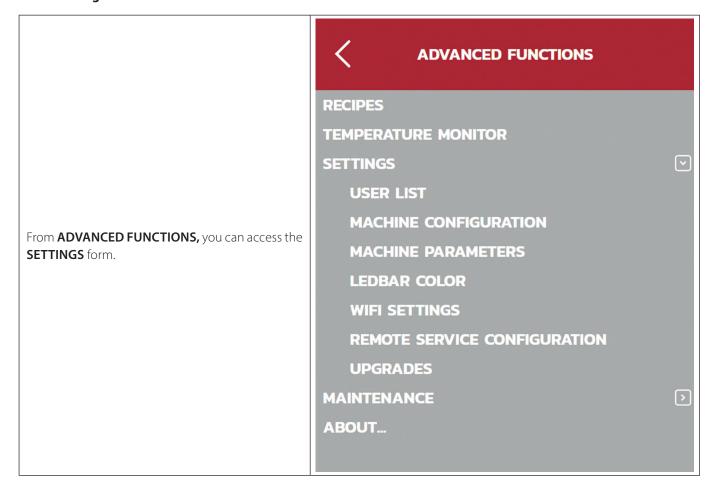
• CHANGE BARISTA WAND

	Name	Unit of meas- urement	Description
	Enable		Enable/disable the recipe
RECIPE DETAILS	Name		Customisable name of the drink
A A A A A A A A A A A A A A A A A A A	lcon		Graphic symbol of the drink
	Product 1		Swappable by press- ing the arrows
0 2 3	Product type		STEAM or NONE to disable
Enabled • Name Steam foam	Туре		Choose a type of milk FLAT - FROTHED
lcon & Product 1 △ ✓	Start delay	S	Determines the dispensing start delay
Product type STEAM Type FOAMED Start delay - 0.0 + s	Temperature	o	Possibility of chang- ing the temperature of the steam
Target temperature - 68 + °C Max duration - 30.0 + s	Max duration	S	Steam dispensing time
Air valve target - 45 + °C	Air valve target temp	S	Air valve opening delay
Final clean O Final clean delay - 5.0 + s ((0))	Final clean		to enable automatic wand cleaning once dispensing is com- plete
	Final clean delay	S	to set the start time for automatic wand cleaning
Press + and - to change the values			

1	Refresh data	To return to the initial settings			
2	Save changes	To save the changes made			
3	Beverage test	Press to perform a test dispensing with the modified beverage. Press the X to stop			

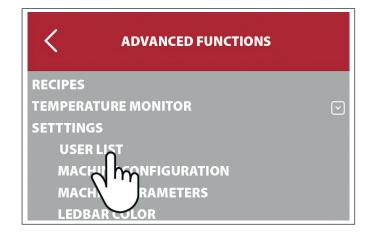


3.8.2 Settings



USER LIST

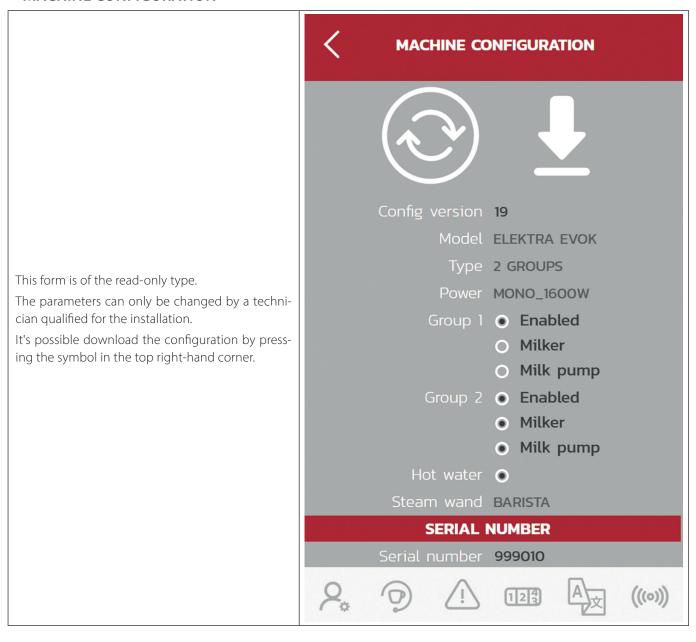
- Click on **USER LIST** to display the enabled users identified as **Waiter, Owner, Service, Technician**.
- The Password 44444 is provided by default.
- To make changes, click on the icon on the right.
- A screen appears, where it is possible to enter a new password.
- After entering the new numerical password, confirm and exit the form.







MACHINE CONFIGURATION





MACHINE PARAMETERS

This form allows you to change the parameters. Items that can be modified with + - are the following:

Espresso pulses/liter: number of pulses/litre of volumetric sensor

Steam target temperature: temperature regulation of the boiler

Steam energy saving temperature: boiler temperature regulation in power save

Energy saving timeout: boiler temperature regulation

Milk rinse startup delay: delay in seconds of the first automatic rinsing after the execution of the recipe

Milk rinse interval: adjustment of rinsing repeat intervals

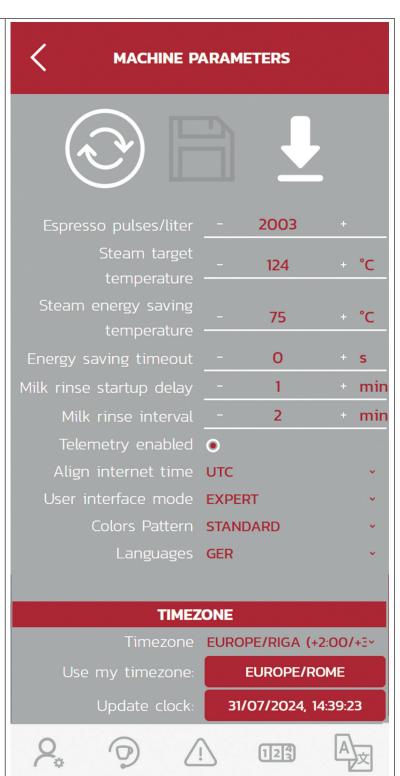
Telemetry enabled: enables or disables telemetry **Align internet time**: set the time alignment mode from the Internet

User interface mode: choose between the two modes viewable EXPERT and BASE

Colors Pattern: choose among display graphics modes

Languages: To choose the machine's display language

Timezone: select from the main time zones. **Use my timezone**: select current time zone. **Update clock**: to synchronise date and time.

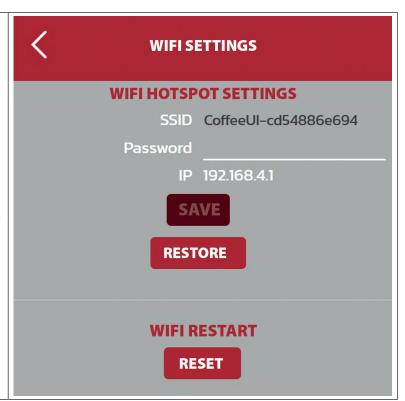




WIFI SETTINGS

This form displays the transmission data of the WiFi module built into the machine board.

It is possible to change the password, perform a Reset and reboot the WiFi module if necessary.

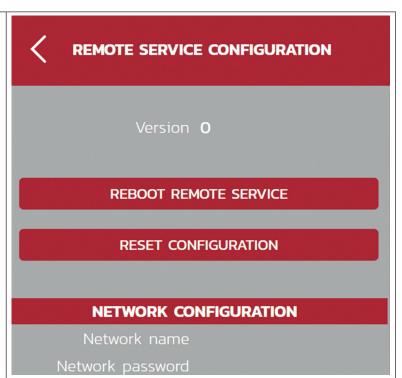


• REMOTE SERVICE CONFIGURATION

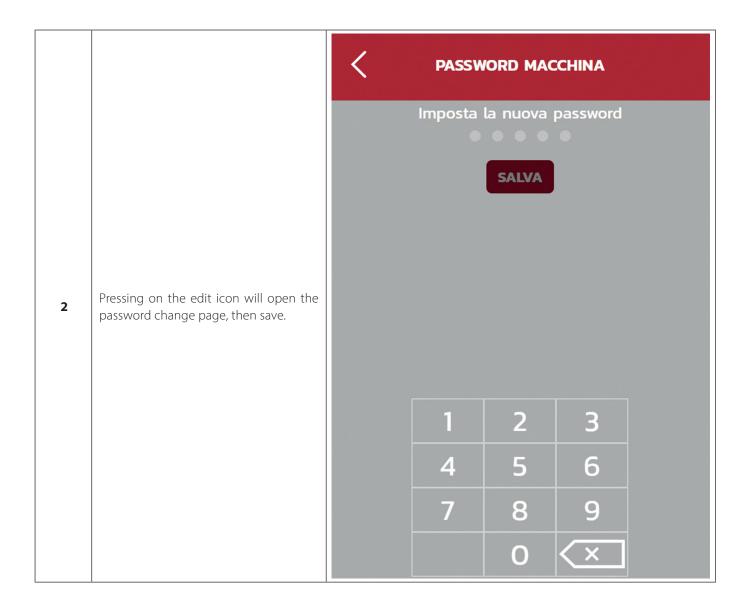
1

This menu is used to read the connection settings and software information of the telemetry module.

If necessary it is possible to restart the module and reset the configuration.

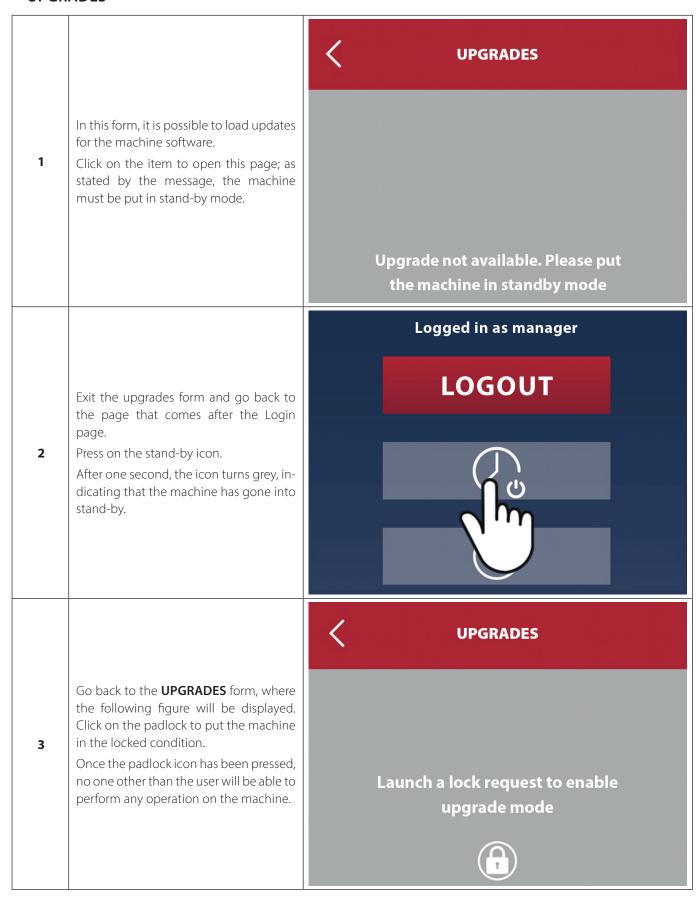




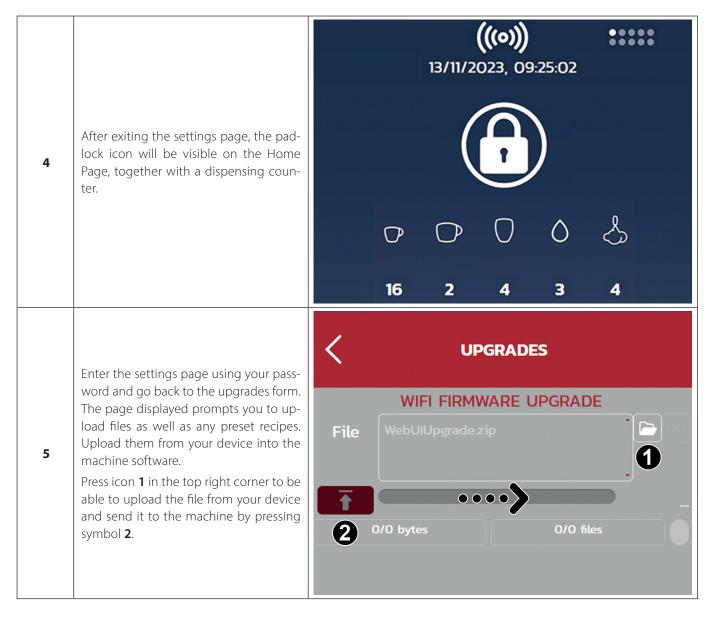




UPGRADES









WARNING

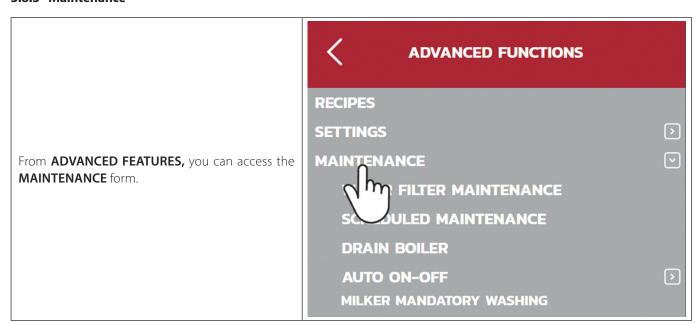
Wait for the scroll bar to finish uploading before closing this form, otherwise the upload will fail.



When finished, to make the changes effective, switch the machine off and on again; see also paragraph.

To resume normal activity, press the stand-by icon on the machine display and wait for start-up; see also paragraph.

3.8.3 Maintenance





WATER FILTER MAINTENANCE

Window to change the settings regarding the water descaling filter.

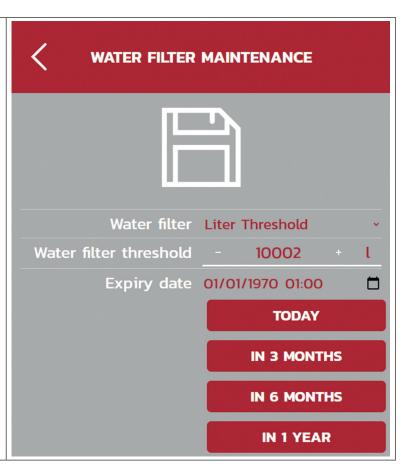
Water filter: open the drop-down menu to enable the filter, selecting the type of alarm, by date or by litre threshold.

Water filter threshold: to set the limit of litres after which the machine signals the need to replace the filter.

Expiry date: to set the date by which the machine signals the need to replace the filter.

When changing the **Expiry date** it is possible to set a precise date/time for the filter expiry message or alternatively with predefined expiry dates via the quick buttons.

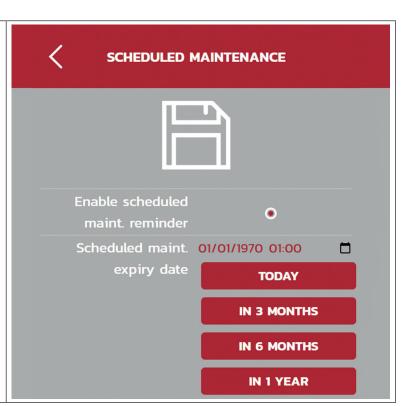
To save the changes press



SCHEDULED MAINTENANCE

Enable scheduled maint. reminder: enables the scheduled maintenance warning and the option to set the maintenance expiry date.

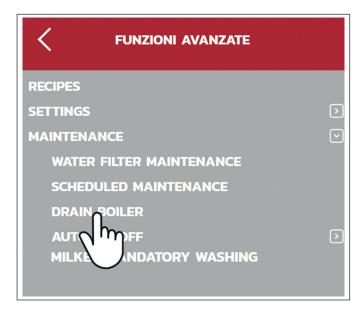
Scheduled maint. expiry date: it is possible to set a precise date/time for the next scheduled maintenance warning, or with predefined deadlines via the quick buttons.





DRAIN BOILER

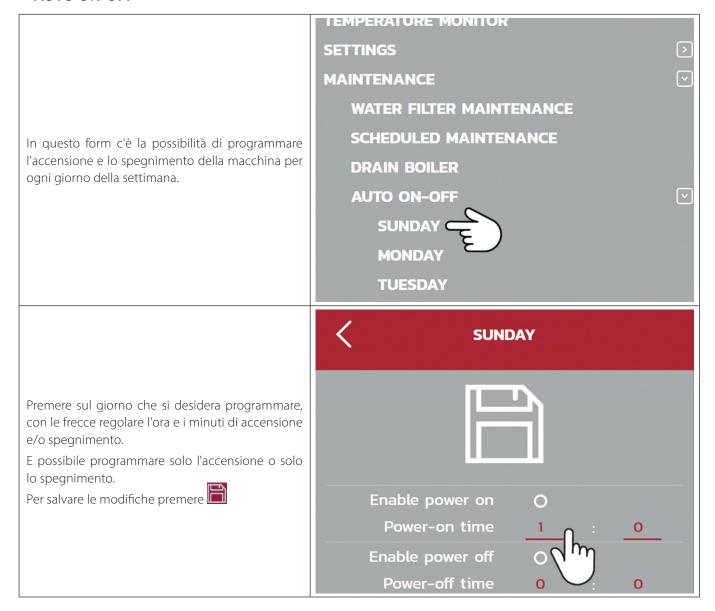
- From this menu, it is possible to set up the machine in such a way that, when it is restarted, the boiler can be filled correctly.
- The entire procedure, which can also be carried out from the display menu, is explained in paragraph "3.3 Boiler emptying at first start-up" on page 15.
- From the WiFi device, a screen appears prompting the operator to put the machine in stand-by mode to empty it, by means of the tap and wands.
- When finished, press **DONE** and switch off the machine. When the machine is restarted, the filling procedure begins.







AUTO ON-OFF



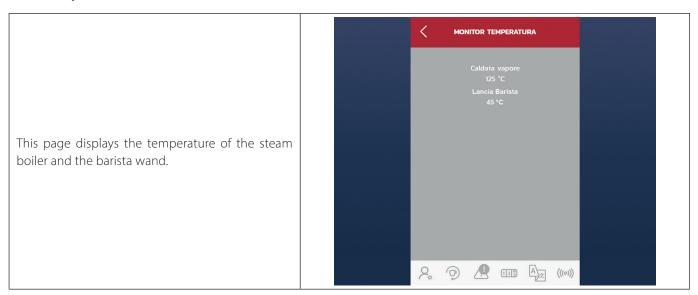


MILKER MANDATORY WASHING

In this display-only form, there is the possibility of reading the hourly schedule of the milker wash.



3.8.4 Temperature monitor







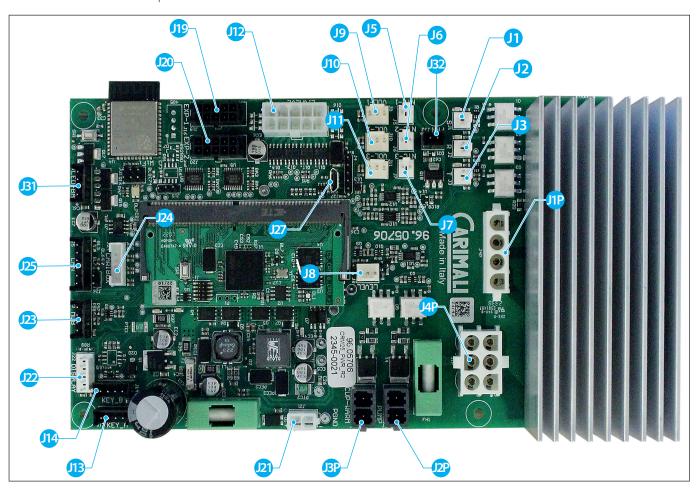
4. BOARD - SOFTWARE

The machines are supplied according to the data indicated on the plate; however they accept different possible electrical connections. A manual for the first installation (**Quick Guide**) in paper format are supplied together with each machine. To consult the electrical and hydraulic diagrams, please refer to the **Document Set** in electronic format (PDF) downloadable from the reserved area (https://aftersales.carimali.com) together with the **User Manual** for the user and spare parts drawings.

4.1 Electronic cards - fuses

4.1.1 Power card (Codice 96.05706)

The power card receives electrical power at 27V dc from the switching supply that by its turn supplies the main functions of the machine and the other power cards.



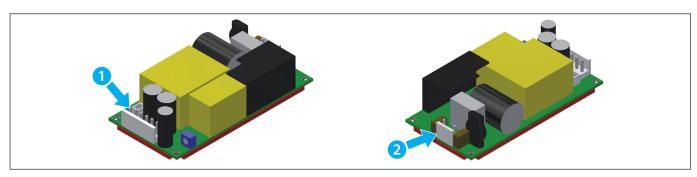
No.	Description	No.	Description
J1P	Input vac	J12	Solenoid valves
J2P	Pump	J13	Branch a keypad
J3P	Cup warmer	J14	Branch b keypad
J4P	Steam boiler	J16	RS 485
J1	Ssr exit	J19	Milker expansion module "A"
J2	Ssr exit	J20	Milker expansion module "B"



No.	Description	No.	Description
J3	Ssr exit	J21	24VDC Inlet
J5	Boiler temperature probe	J22	Display 4.3"
J6	Barista temperature probe	J23	MDB
J7	Cup warmer extra probe	J24	Caribox
78	Boiler level probe	J25	Can bus
J9	Volumetric GR1	J27	Usb 2.0
J10	Volumetric GR2	J31	Led bars
J11	Volumetric GR3	J32	Fan

4.1.2 Mornsun supply 225W 27VDC 100-240VAC

The switching supply receives the electrical power from the network (220/240V - 50/60 Hz) and supplies the power card at 27V dc.

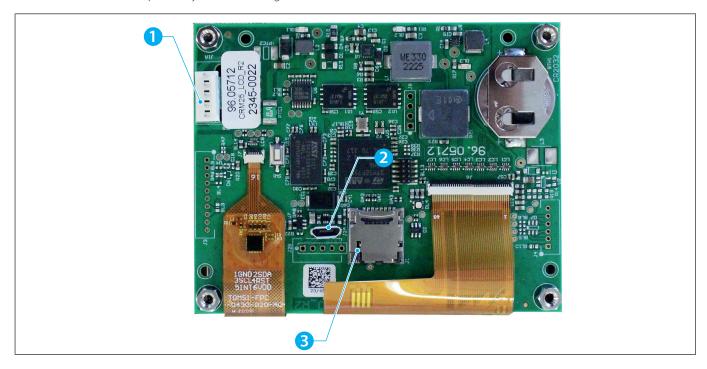


1	Output connector 27V dc
2	Input connector IN 200/240 VAC



4.2 User terminal (Code 96.05712)

The user terminal is composed by the service logic card.



1	Power board connection - 27vdc input
2	USB port
3	SD micro card



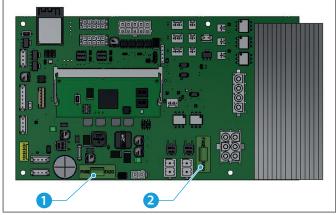
4.2.1 Fuses



WARNING:

Replace only with original fuses. See the following table for more details.

REFERENCE	PROTECTED ELEMENT	TYPE OF FUSE	MODEL	SPARE PART CODE
1	Pump and cup warmer	SPT 5X20mm 250V 6.3A	Schurter cartridge Fuses	
2	Part 24VDC	SPT 5X20mm 250V 6.3A	Schurter cartridge Fuses	
3	Milk pump	SPT 5X20mm 250V 4A	Schurter cartridge Fuses	96.05434





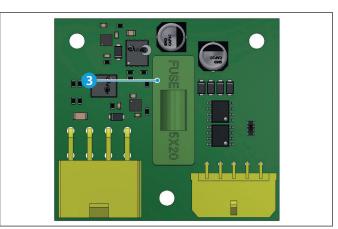


Fig. 02 Milker expansion card module

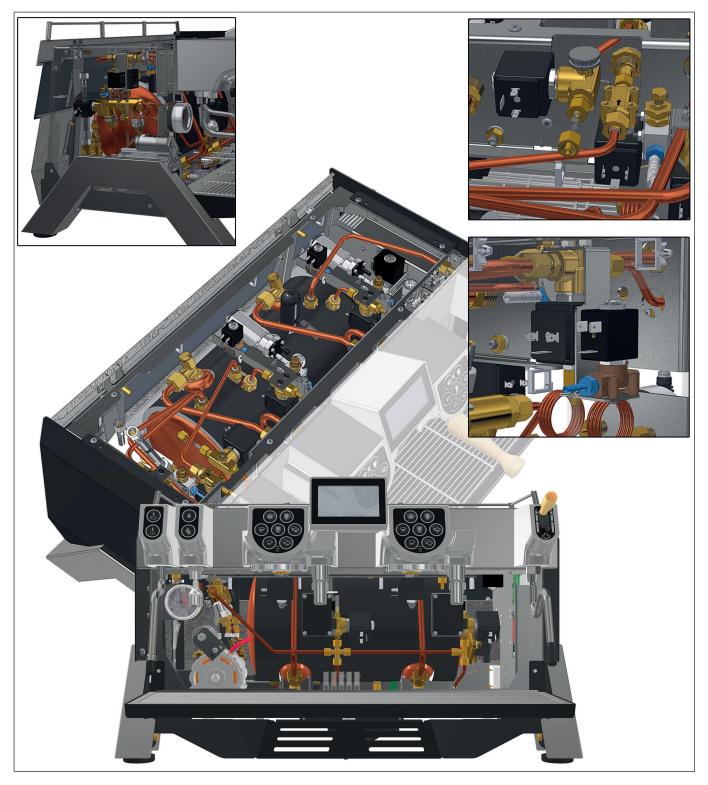


4.3 Valve layout



IMPORTANT:

The valve layout may be different according to the version of the machine.

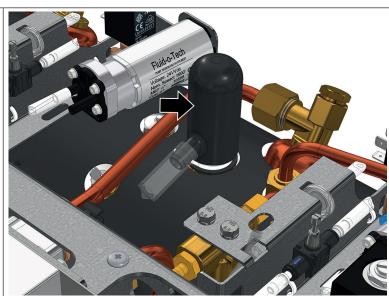


Code	Description	Code	Description
Y1.1	AIR WAND BARISTA SOLENOID VALVE	Y2.5	HOT WATER SOLENOID VALVE
Y1.2	AIR MILKER SOLENOID VALVE	Y2.6	HOT WATER MIXER SOLENOID VALVE
Y2.1	STEAM MILKER SOLENOID VALVE	Y2.7	COFFEE UNIT SOLENOID VALVE
Y2.3	WATER INLET SOLENOID VALVE	Y2.8	WASHING SOLENOID VALVE
Y2.4	BARISTA WAND SOLENOID VALVE	Y2.16	CLAMP SOLENOID VALVE

4.3.1 Other valves

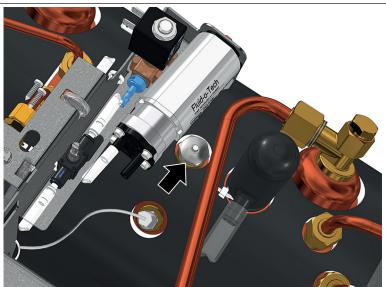
Safety valve

In the case of an overpressure in the boiler due to a fault, the 1.9 bar safety valve opens and discharges steam into the drain.



Anti-vacuum valve

The 10" anti-vacuum valve (see hydraulic diagram) is installed on the boiler and prevents any air remaining during the loading phase and a depression being created during the heating phase.

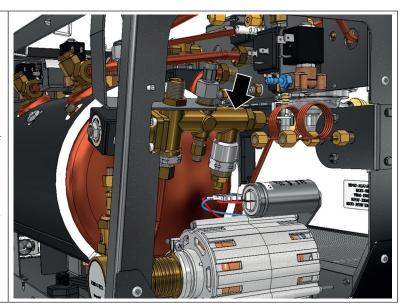


Non-return valve

The non-return valve (see hydraulic diagram) has the following function.

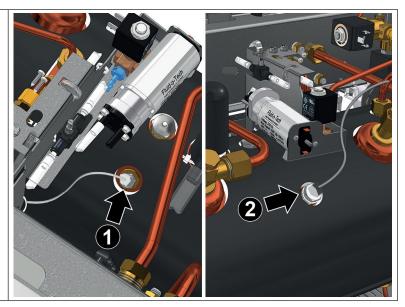
During the loading phase it opens by means of the water pressure, letting the water enter into the boiler.

Once the loading phase is over, it closes preventing the water in the steam boiler from returning to the water supply network.



4.3.2 Main probes

Located above the boiler there are the main probes for detecting the water level in the boiler (1) and the boiler temperature (2).







5. MAINTENANCE

5.1 Preventive maintenance

The preventive maintenance guarantees a constant quality of the products and reduces the faults of the machine for the coffee. Within the scope of preventive maintenance, the recommended works are performed and the parts subject to wear and spare parts are replaced.

Preventive maintenance is scheduled by number of dispensing cycles and/or time intervals.

5.2 Lubricants

Use the white petroleum jelly to lubricate the components.

This is normally not necessary because all parts are prepared in the machine assembly phase.

5.3 Products for ordinary cleaning

For a correct maintenance and proper machine operation, use the products described here recommended by Elektra and available for purchase in the reserved area.



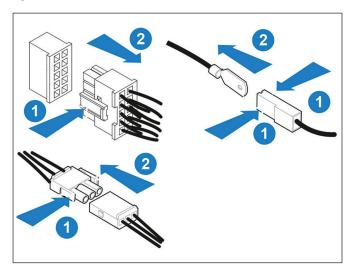


5.4 Disconnection of electric wiring



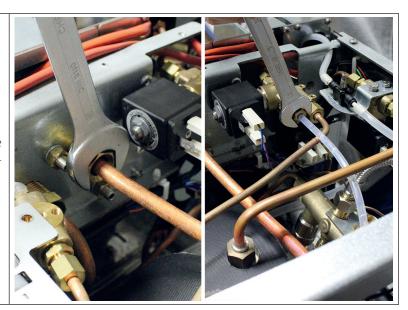
WARNING:

Do not damage the electric connections. Press the locking flap before removing the connector to prevent it being damaged.

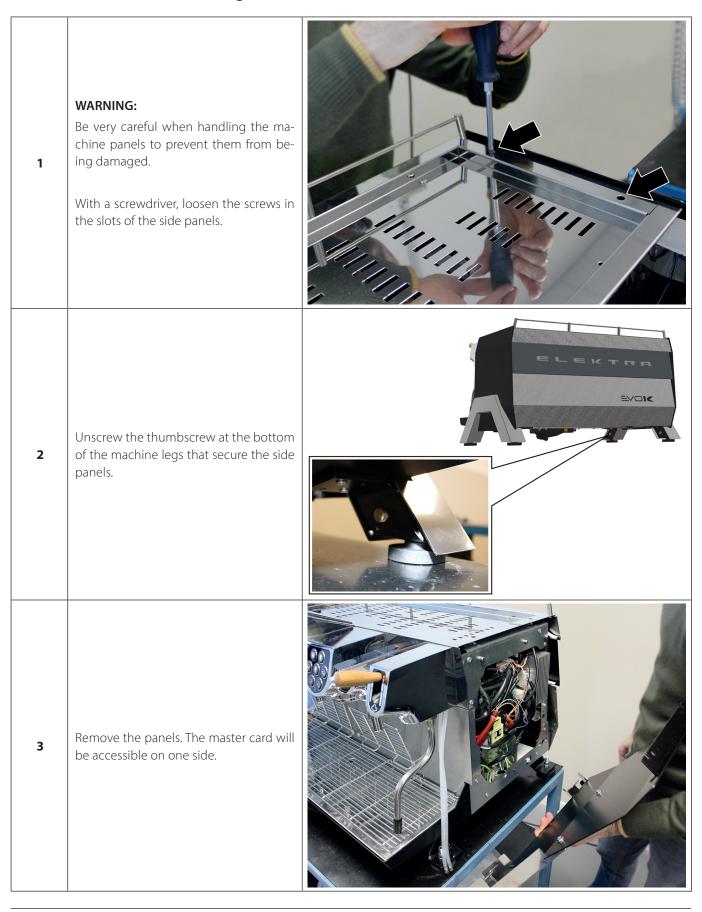


5.5 Disconnection of hydraulic pipes

Copper pipes, or in the case of flexible pipes, are detached from the connection nuts with a hexagonal spanner.



5.6 Panel removal for accessing the machine



Unscrew the screws along the sides on the top cover to remove it. Unscrew the two columns indicated in 5 the figure to remove the rear panel of the machine. Take of the back panel. Disconnect the 6 connections of the LEDs on the panel.



To remove the front cover. After removing the grid and the liquid collection 7 tray, unscrew the screws at the base that fix the metal grid to the structure. Slide down the front cover and remove 8



5.7 Coffee unit gasket

If the filter holder closure goes beyond the middle of the unit, the cause may be the worn gaskets.



To replace it, unscrew the central screw beneath the unit. Remove the shower screen, the shower holder and gaskets.





5.8 Dose regulator

The machine is already adjusted to deliver a prede-

If a different emission is needed, intervene on the regulators on the solenoid valves, depending on the configuration of the machine.

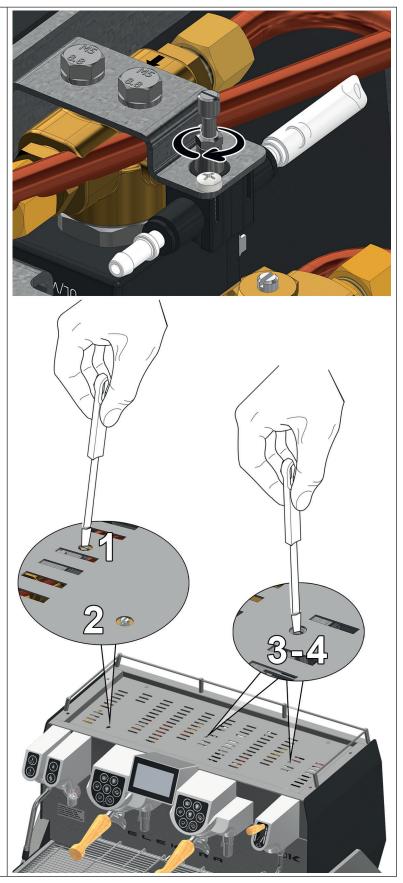
Loosen the nut then act on the regulator with a screwdriver.

The examples show the adjusters accessible directly from the holes in the roof (if you decide not to tighten the regulator nuts), without the need to remove the top panel of the machine, which are:

- **1** Barista wand
- 2 Water mixing solenoid valve

fined amount of air to the units.

- **3-4** Milker A-B





5.9 Motor pump adjustment

The machine is already adjusted to dispense at a pre-set pressure.

However, check the pump pressure after installation at high levels or after prolonged storage.

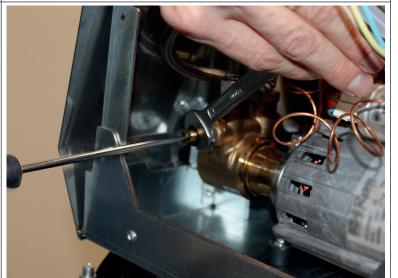
Use a filter holder with pressure gauge to measure the pressure that should normally be between 8-9 bar.

Dispense a coffee.



If the values do not match, loosen the nut with a hex wrench and adjust the pressure of the pump by-pass with a screwdriver.

Dispense again until the correct value is reached.



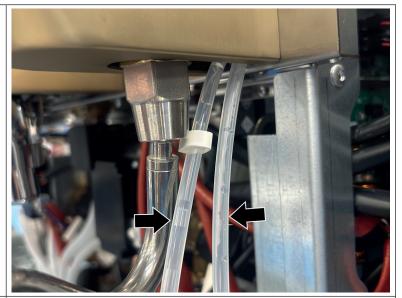


5.10 Under counter fridge position

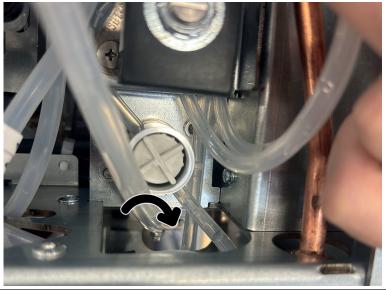
The positioning and length of the tubes can be modified according to the user's requirements, allowing for variation in milk delivery time. This information is detailed in the paragraph below: "Changes to milk recipes" on page 30

Remove the top and front covers before proceeding. "5.6 Panel removal for accessing the machine" on page 81

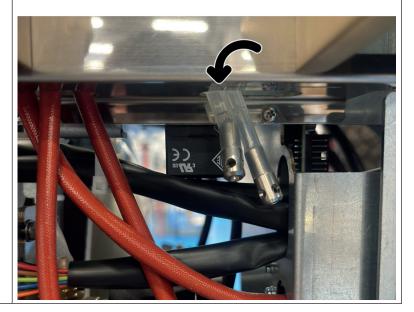
Look at the pipes located near the steam wand on the right group.



Look at the slot, in the sheet metal, that will house the new positioning of the pipes.



Remove the pipes from the top of machine and insert them into the slot.

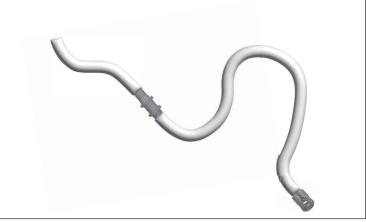




Pass the two pipes through the hole in the base.



To reach the fridge undercounter, it is necessary to extend the two existing suction pipes by using the ones supplied and the related straight hose connector.



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6. TROUBLESHOOTING

This summary table lists the main causes of malfunctioning of the machine with possible reasons and solutions.

PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTION
	Incorrect electrical connection.	Make sure that the plug is correctly inserted in the socket.
		Check the main switch in the room.
		Check the position of the switch on the machine.
		Check operation by connecting with interface from the phone and checking the status of the keypad
The machine does not turn on (display off).		Check the display connection wiring.
		If the machine is active and working but the display remains off then it is a component failure, proceed with the replacement
		If the machine is not working and it is not possible to make it function without a display, it must be reported as a general machine fault
	re Electrical connection of the components / keypads faulty.	Check whether the machine is warming up.
		Detect faults reported on the display and/or by accessing the alarm history.
Display on but the keypads are off.		Try to start the machine (start by heating)
		Check operation by connecting with interface from the phone.
		Check electrical connections of keypad



PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTION
	Electrical connection / display failure.	Check machine operation by connecting with phone interface and checking the status of the keypads.
		Check the display connection wiring.
Voltage in the machine but the display is off.		If the machine is active and working but the display remains off then it is a component failure, proceed with the replacement.
		If the machine is not working and it is not possible to make it function without a display, it must be reported as a general machine fault
Display is on and readable, but	Film / faulty display.	Check the operation of the machine by connecting with interface from the phone.
touch commands are not responding.		If no faults are reported and the machine is working (keypad) it is a component problem (display)
	Ka waad da aa aa b	Verify recipe programming by accessing the internal menu from the display or phone.
Drinks not dispensed correctly.	Keypad dose set.	Check for volumetric or other alarms from the machine alarm history menu.
		Check the coffee dose.
	The quality of the drink dispensed is	Check the grinding.
	not acceptable.	Clean the coffee group head and the Milker (if present).

6.1 Meaning of errors.

DEFINITIONS OF GROUP 1/2/3 ERRORS				
No.	Description	Error type	Possible solution	
1	Keypad lost	Keypad missing/error	Contact Technical Support	
2	Temperature probe lost	Barista wand temperature sen- sor missing/error	Contact Technical Support	

DEFINITIONS OF GENERIC ERRORS				
No.	No. Description Error type Possible solution			
1	Reading configuration error		Contact Technical Support	



DEFINITIONS OF GENERIC ERRORS				
2	Writing configuration error		Contact Technical Support	
3	Configuration not completed		Contact Technical Support	
4	Boiler fill error	Filling error, attempt to operate with empty boiler	Restart the machine to perform the filling procedure	
5	Boiler fill timeout	Filling timeout, the boiler was not filled within the expected time	Check the water supply. If the problem persists, contact Technical Support	
6	Heating error	Heating error, the boiler did not reach the temperature within the expected time	Restart the machine. If the prob- lem persists, contact Technical Support	
8	High temperature	Steam boiler operating temper- ature exceeded	Restart the machine. If the prob- lem persists, contact Technical Support	
9	Temp sensor missing	Temperature sensor missing/ error	Restart the machine. If the prob- lem persists, contact Technical Support	
12	Level sensor missing	Level sensor missing/error	Restart the machine. If the prob- lem persists, contact Technical Support	
13	Display missing	No communication with the display	Restart the machine. Check the display connection	
14	Web interface missing	No communication with the local Wi-Fi module	Restart the machine. Test the connection with the WebUI interface	
18	Water counter high	The water filter counter has exceeded the established threshold or the expiry date has passed	If using an external water filter replace it as soon as possible and reset the counter or update the expiry date set in the parameters.	
19	Periodic maintenance	The date set for scheduled maintenance has been exceeded	Perform the scheduled mainte- nance and enter the date for the next maintenance	

