M200

MANUALE DEL TECNICO

ENGINEER'S MANUAL

MANUEL DU TECHNICIEN

TECHNIKERHANDBUCH

MANUAL DEL TÉCNICO

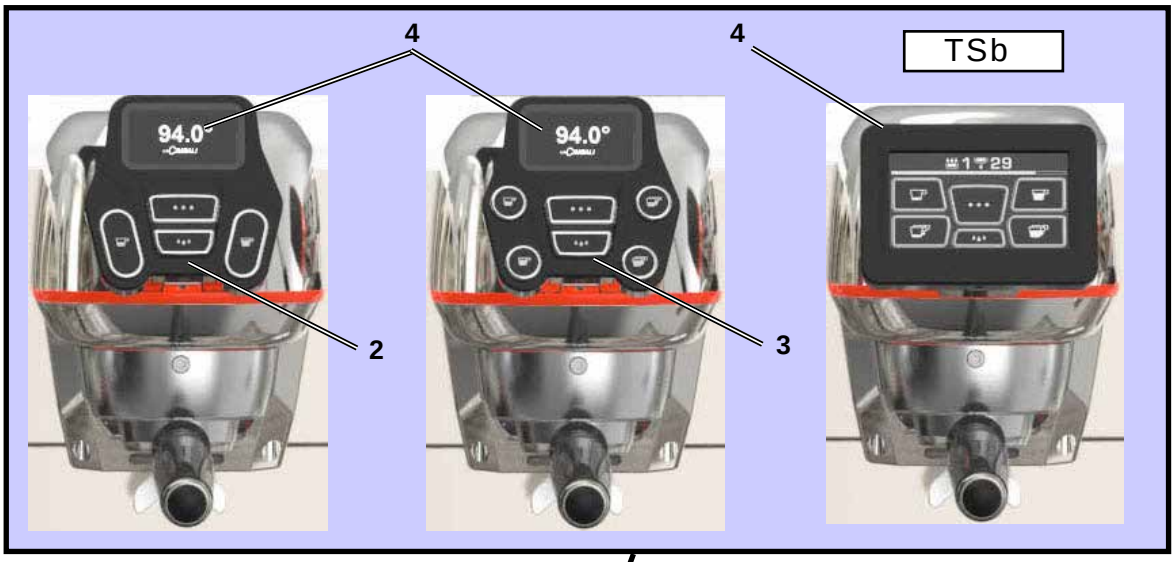
MANUAL DO TÉCNICO

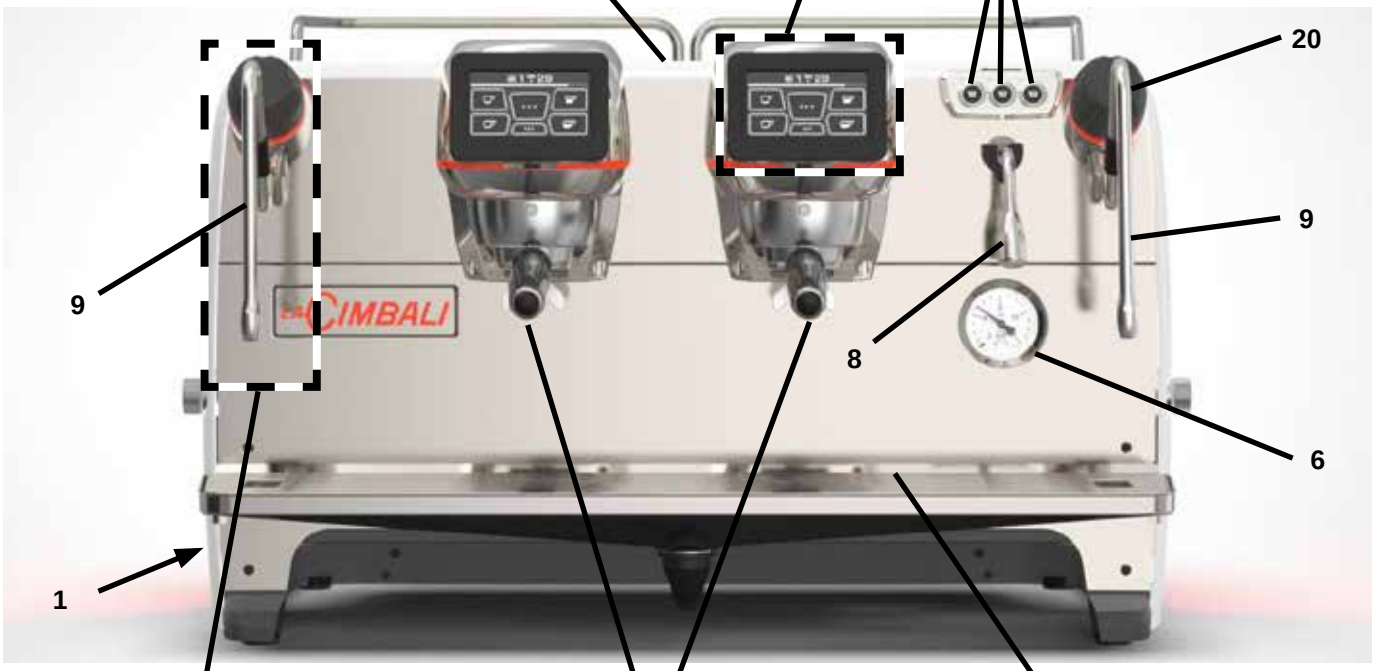
Touch screen - Touchscreen
Pantalla táctil - Touchscreen
Écran tactile - Ecrã tátil

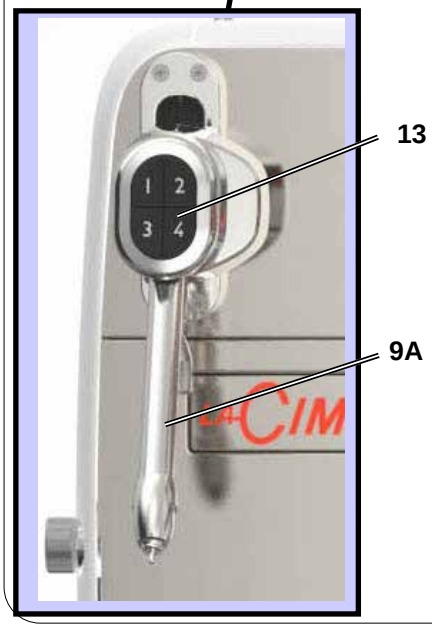
Pulsantiera Automatica
Automatic Push-button Strip
Tableau de commande automatique
Drucktasten
Teclado automático
Painel de botões automático

(rev. 2210)

M200







IT LEGENDA

1 Interruttore generale
2 Tastiera 4 selezioni
3 Tastiera 6 selezioni
4 Display grafico
6 Manometro pompa
8 Erogatore acqua calda
9 Tubo (lancia) vapore
9a Tubo (lancia) Turbosteam (*)
11 Portafiltro
12 Tasti acqua calda
13 Selettore Turbosteam (*)
15 Bacinella appoggiatazze
20 Manopola erogazione vapore
23 Piano appoggiatazze
TSb Touch screen di selezione

I componenti - * - sono applicati solo in alcune configurazioni di prodotti.

EN LEGEND

1 Main switch
2 4 keys pushbutton
3 6 keys pushbutton
4 Graphical display
6 Pump pressure gauge
8 Hot-water outlet
9 Steam pipe
9a Turbosteam pipe (*)
11 Filter holder
12 Hot-water key
13 Turbosteam selector (*)
15 Tray
20 Steam supply knob
23 Cup warmer
TSb Selection touch screen

The components - * - are applied only in some product configurations

FR LÉGENDE

1 Interrupteur général
2 Clavier 4 touches
3 Clavier 6 touches
4 Ecran graphique
6 Manomètre pompe
8 Sortie eau chaude
9 Buse vapeur
9a Buse Turbosteam (*)
11 Porte-filtre
12 Touche eau chaude
13 Sélecteur Turbosteam (*)
15 Bac d'égouttement
20 Robinet de débit du vapeur
23 Chauffe-tasses
TSb Écran tactile de sélection

Les composants accompagnés d'un * ne sont montés que dans certaines configurations de produit.

DE LEGENDE

1 Hauptschalter
2 Druckknopftafeln 4 Tasten
3 Druckknopftafeln 6 Tasten
4 Graphisches Display
6 Manometer Pumpe
8 Heißwasserausgabe
9 Dampfausgaberohr
9a Dampfausgaberohr Turbosteam (*)
11 Filterhalter
12 Heißwasser-Drucktaste
13 Wahlschalter Turbosteam (*)
15 Auffangschale
20 Drehknopf Dampfabgabe
23 Tassenerwärmer
TSb Wahl-Touchscreen

Die Komponenten - * - sind nur bei einigen Produktkonfigurationen enthalten.

ES LEYENDA

1 Interruptor general
2 Botoneras 4 teclas
3 Botoneras 6 teclas
4 Display gráfico
6 Manómetro bomba
8 Erogador agua caliente
9 Tubo (boquilla) vapor
9a Tubo (boquilla) Turbosteam (*)
11 Portafiltro
12 Tecla suministro agua caliente
13 Selector Turbosteam (*)
15 Bandeja
20 Botón giratorio erogación vapor
23 Calientatazas
TSb Pantalla táctil de selección

Los componentes - * - se aplican sólo en algunas configuraciones de productos.

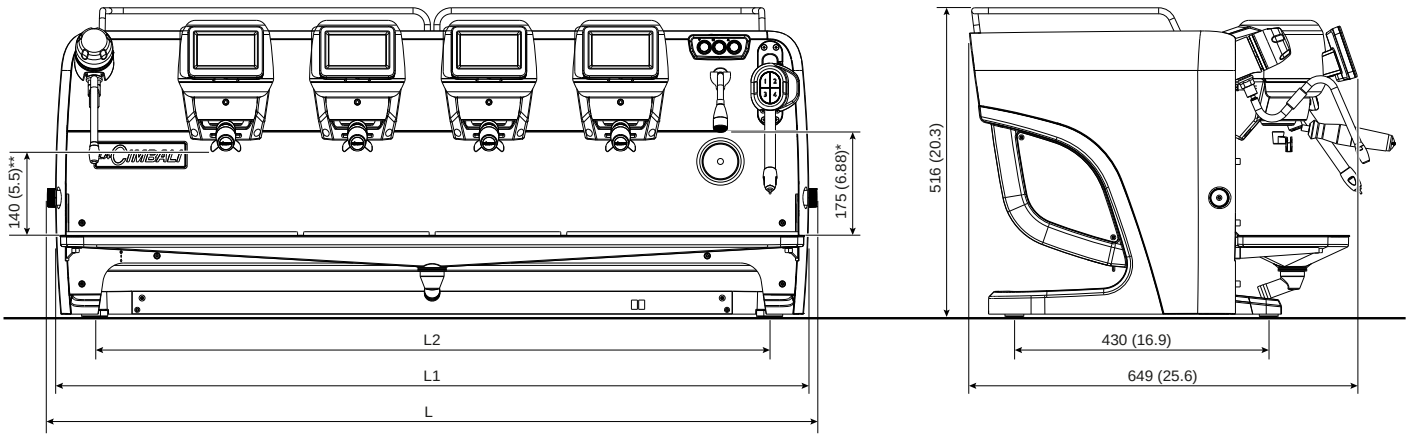
PT LEGENDA

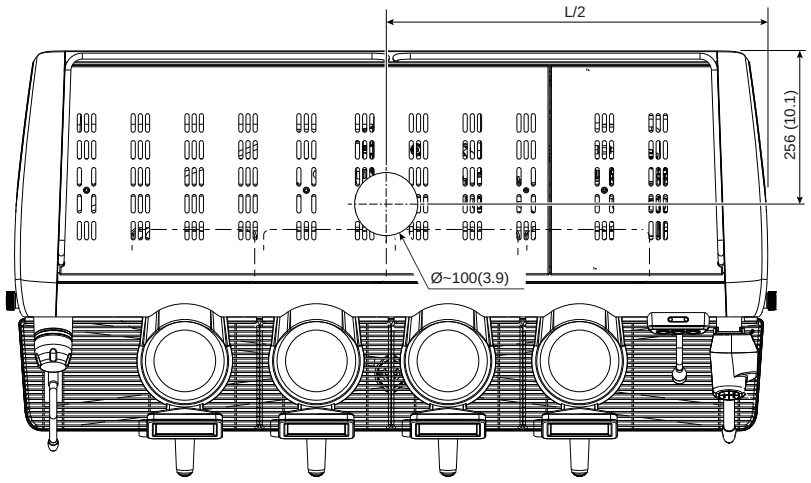
1 Interruptor geral
2 Quadro de 4 botões
3 Quadro de 6 botões
4 Display gráfico
6 Manómetro da bomba
8 Distribuidor de água quente
9 Tubo do vapor
9a Tubo do vapor Turbosteam (*)
11 Porta-filtro
12 Botão de distribuição de água quente
13 Selector Turbosteam (*)
15 Tabuleiro
20 Manípulo de distribuição do vapor
23 Grelha para aquecer chávenas
TSb Touch screen de selecção

Os componentes - * - são aplicados só em algumas configurações de produtos.

M200

PED / DESP	P_{max} [bar]	T_{max} [°C]	tipo di macchina Type of machine type de machine Maschinentyp modelo de la máquina tipo de la màquina	2 gruppi 2 groups 2 groupes 2 Einheiten 2 grupos 2 grupos	3 gruppi 3 groups 3 groupes 3 Einheiten 3 grupos 3 grupos	4 gruppi 4 groups 4 groupes 4 Einheiten 4 grupos 4 grupos
			Fluido - Fluid - Fluide Flüssigkeit - Fluido - Fluido	**Capacità - Capacity - Capacité** [L] **Fassungsvermögen - Capacidad - Capacidade**		
Caldaia Service boiler Chaudière Heizkessel Caldera Caldeira	2	133	acqua/vapore water/steam eau/vapeur Wasser/Dampf agua/vapor água/vapor	7	7	7
Boiler caffè - Coffee boiler Chauffe-eau, café Boiler Kaffee Calentador café Boiler do cafè	15	160	acqua - water eau - Wasser agua - água	0.60 x 2	0.60 x 3	0.60 x 4





**	
pos. 1	75 (2.95)
pos. 2	115 (4.5)
pos. 3	140 (5.5)

*	
pos. 1	110 (4.33)
pos. 2	150 (5.9)
pos. 3	175 (6.88)

DIMENSIONI / DIMENSIONS				
		2 gr.	**3 gr.**	**4 gr.**
L	**mm**	887	1087	1287
	inches	*34.9*	*42.8*	*50.6*
L1	**mm**	859	1059	1259
	inches	*33.8*	*41.7*	*49.6*
L2	**mm**	740	940	1140
	inches	*29.1*	*37*	*44.9*
Peso netto Net weight	**Kg**	70	92	105
	pounds	*154*	*203*	*231*

Index

English

English

Description of display symbols

WATER LEVEL

This symbol indicates the boiler water level. During the loading phase, the bottom part of the icon blinks.

When the optimum level is reached, the symbol looks like this 

.

HEATING ELEMENT

This symbol indicates that the heating element is activated and functioning; a thicker luminous flow passing through the heating element shows the electric heating is on.

When the boiler pressure reaches the set value, the icon looks like this 
.

This indicates that the boiler heating element has been disabled.

N.B.: the customer cannot switch the electric heating on or off.

When the on/off function is programmed, the electric heating takes place automatically.

BOILER PRESSURE

This symbol indicates the boiler pressure value.

If the icon 

is pressed, the pressure gauge will be displayed analogically. This will be shown on the display:

Press again the icon 

to return to the regular display mode.

CUP WARMER

These symbols indicate the power currently selected for the cup warmer.

WI-FI

This symbol appears on the display when the Wi-Fi module is in the machine.

BLUETOOTH

These symbols refer to Bluetooth communication:

- the white icon indicates the presence of the Bluetooth module on the machine;

- the white icon on blue background indicates that the machine is communicating with a Bluetooth grinder/dispenser.

USB

This symbol appears on the display when a USB pen drive is connected.

PAYMENT SYSTEMS

This icon indicates that the machine is connected to a payment system interface and is configured to work with it. Dispensing is therefore possible subject to approval by the payment system.

- the red icon indicates that the cash system has denied the transaction;

- the blue icon indicates that the cash system has approved the transaction.

CONTROL OF THE FLOW (ONLY IF IN USE)

When this animated icon appears it means that it is necessary to adjust the grinder/dispenser to tighten or loosen the grinder, in order to return the coffee dose to the correct parameters.

The icons that are shown are:

means that the grinder needs to be loosened. (flow of coffee is lower than the reference).

means that the grinder needs to be tightened. (flow of coffee is greater than the reference).

Note. The number next to the icon (1 or 2) indicates the grinder/dispenser that must be adjusted.

The icon appears on the display instead of the level symbol.

English

Coffee unit symbols (only automatic push-button strip)

94.0° Boiler temperature indication.

4 Pre-infusion phase, represented with the symbol and relative duration.

25 Dispensing phase, represented with the symbol and relative duration.

bar indicating the total progress of the operation.

This icon appears when the coffee boiler is switched on and indicates when the set temperature has been reached.

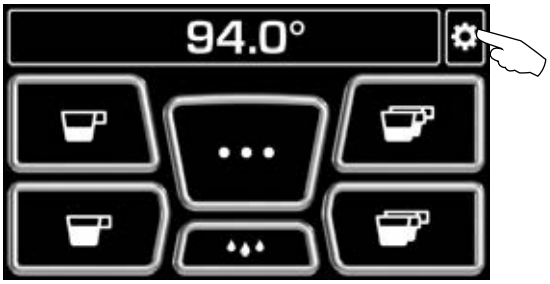
This icon indicates that the coffee boiler is heating up.

English

English

Programming / menu access

Access the machine programming menu by pressing the **SET** icon, found only on the right-hand group.



NOTE. The **SET** icon may turn a different colour in some instances:

WHITE: normal operating mode.

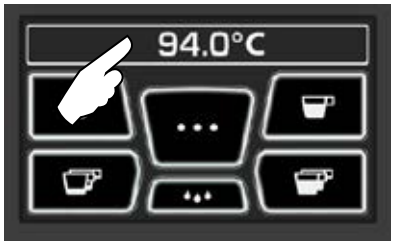
YELLOW: service display message requiring user intervention (for example, wash request, grinder adjustment, with the PGS system active, etc.).

RED: error message

Boiler shut off

Touchscreen

1



Press the temperature on the boiler display.

2

On the boiler display, press the indication .

Note: if not pressed within a few seconds, the boiler returns to normal functioning.

3

The unit boiler is disabled. Press any part of the display to return to normal functioning.

Automatic push-button strip

1

Hold the button down for a few seconds.

2

The coffee group will go into STANDBY mode.

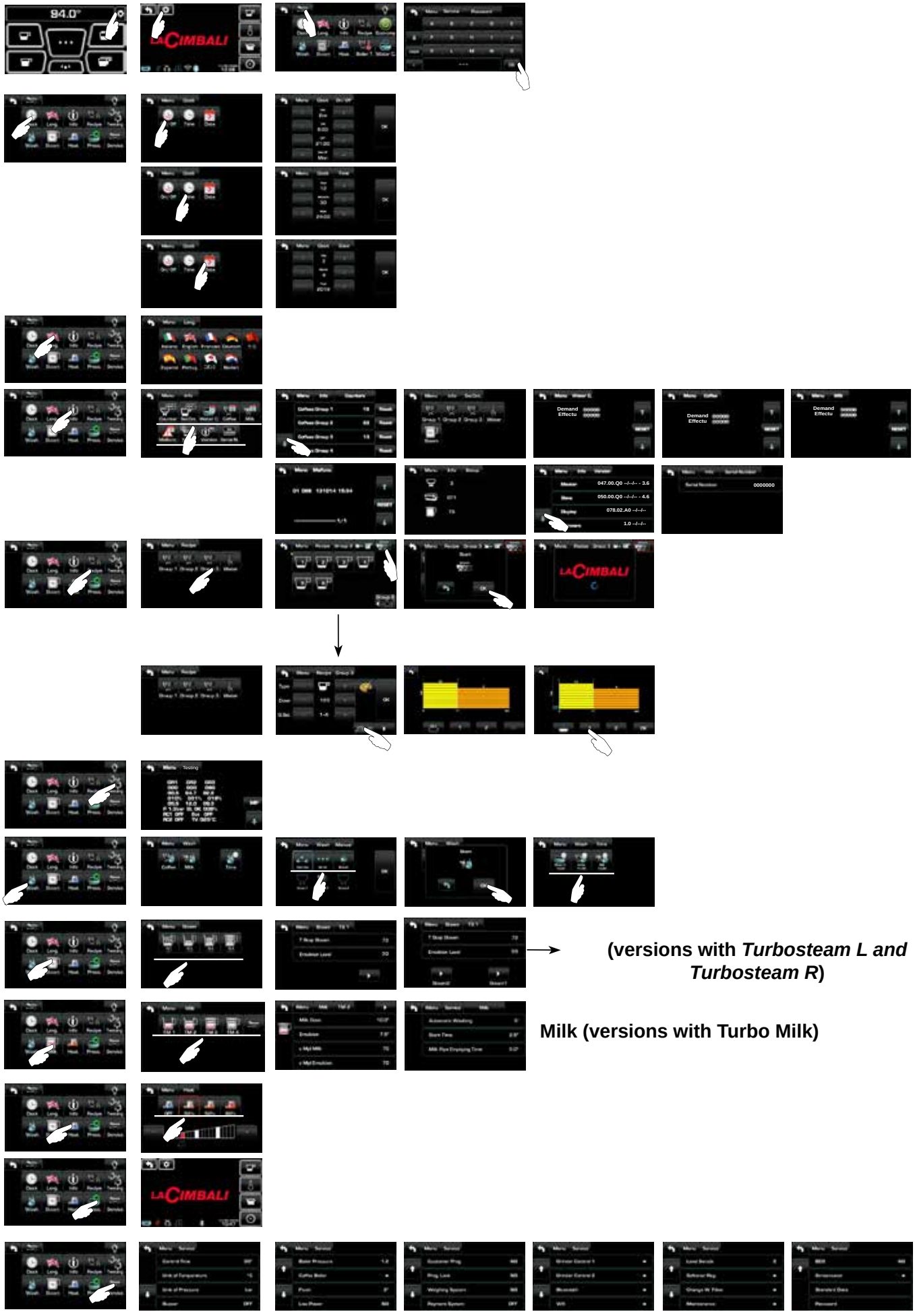
3

If unused for a further 60 seconds, the coffee group will turn off and dim the display.

Press any button ( ) twice in a row to return to normal functioning.

Technical programming flow

English



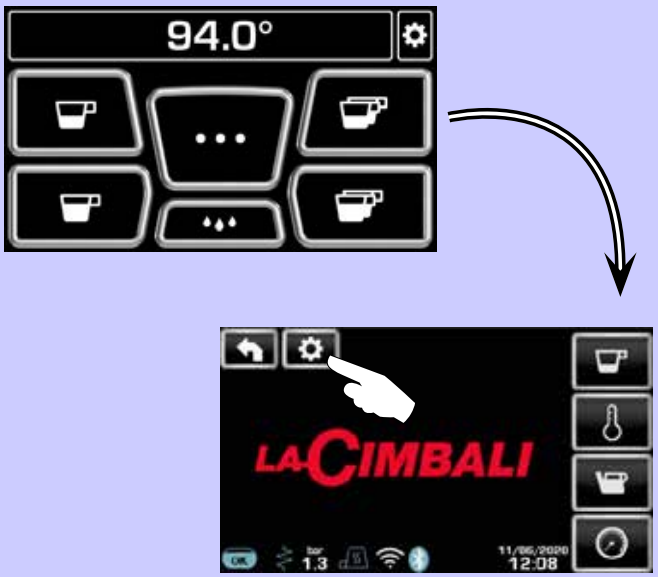
1. TECHNICAL PROGRAMMING (TOUCH SCREEN)

1.1 Programming access “Touch screen”

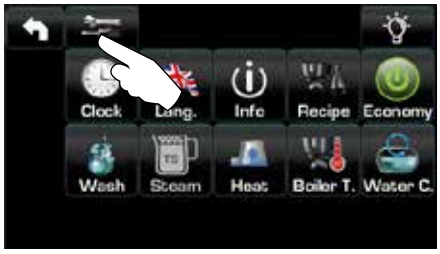
English

Access the programming menu by pressing:

the **SET** key :



1) the key:



2) type the password and then press OK.

Return to the previous menu or exit the programming menu by pressing the key .

1.2 Service time menu

1

Press the icon  .

AUTOMATIC SWITCH OFF / SWITCH ON

The machine can be set to switch off and switch on at programmed times.
During the machine off phase, the display light is dimmed.

Note: When the machine is working in the automatic on/off function do not use the main power switch (1) to switch off the machine. If this happens, the machine will not be able to switch on again automatically.

FORCED SWITCH ON

Push any dispensing key to turn on.

Note: Forcing the machine on does not change the programmed on/off times.

Note: At this point the machine will remain on until the next switch off time is reached.

To immediately return the machine to the programmed switch off time, switch it off and on again using the main power switch (**1**).

2a

Access the service hours menu by pressing the icon  .

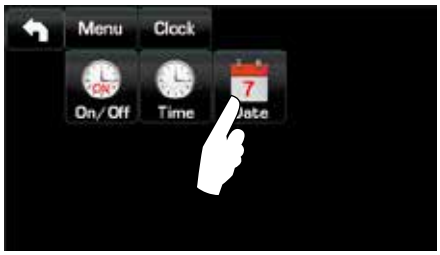
These parameters can be configured:
USE - timed switch-on/switch-off: YES, NO, Eco (during the switch-off phase, the machine's heating element is not completely disabled and allows the boiler pressure to remain at 0.2 bar).
ON - (switch-on time);
OFF - (switch-off time);
DAY OFF - (day of closure).

2b

Press the icon  to set the time.

These parameters can be configured:
HOUR, MINUTES, STYLE - (24:00 or AM/PM).

2c



Press the icon  to set the date.

These parameters can be configured:
DAY, MONTH, YEAR.

1.3 Language selection

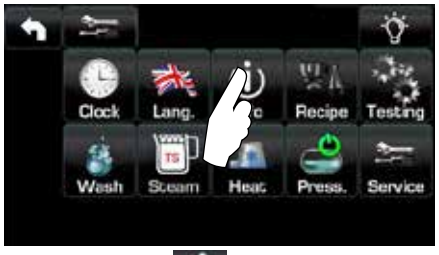
Press the icon  .

Press the icon of the desired language.

English

1.4 INFO Menu

1



Press the icon  .

2

In the INFO menu, you can view:

Counters		*Counters Sel.*	
Refill		*Coffee*	
Malfunction		*Setup*	
Version		*Serial Number*	

Counters

3a

In the ***Counters***  menu the listed parameters are:

Coffee Group… - (number of coffee-based beverages);
Brewing - (number of times that coffee was dispensed in “brewing” mode);
Tea infusion - (number of times that tea was dispensed);
Water - (number of times that water was dispensed);
Steam - (number of times that steam was dispensed using the Turbosteam selector, position TS 1–4 with emulsion 0);
Steam + Air - (number of times that steam and air were dispensed using the Turbosteam selector, positions TS 1–4 with emulsion from 10–100);
Hot milk - (number of times hot milk was dispensed);
Cold milk - (number of times cold milk was dispensed);
Total Coffee - (total number of coffee-based beverages);
 - (time since last start up).

Scroll through the entries using the  and  arrows.

3b

In the ***Selection Counters***  menu, the parameters relative to the individual keys are the ones that are counted.

Example of counter selection of a coffee group  :

Example of counter selection of water doses  :

Counters (versions with *Turbosteam L and Turbosteam R*)

3c

In the ***Selection Counters*** menu, the parameters relative to the individual keys are the ones that are counted.

Example of a Turbosteam key selection counter :

Turbosteam 2 (SX)

Turbosteam 1 (DX)

Replacement part

1

Press the icon to display the "Refill" submenus

2

1) Scroll through the items by pressing the icons .

2) Press the key RESET to clear/reset.

Coffee

1

Press the icon to display the "Coffee" submenus.

2

1) Scroll through the items by pressing the icons .

2) Press the key RESET to clear/reset.

Milk (versions with Turbo Milk)

1

Press the icon to display The "Milk" submenus.

2

1) Scroll through the items by pressing the icons .

2) Press the key RESET to clear/reset.

Malfunct. Archive

1

Press the icon  to display The "Faults" submenus.

2

1) Scroll through the items by pressing the icons  .

2) Press the key RESET to clear/reset.

English

English

Setup

1

Press the icon  to display The "Setup" submenus.

2

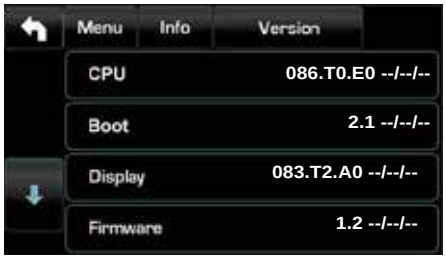
-  : NUMBER OF GROUPS: 2, 3, 4;
-  : GT Version - PROFILE;
-  : Turbosteam: TS - TS/2 - NO; TurboMilk: YES / NO

Version

1

Press the icon  to display The "Version" submenus.

2



Scroll through the items using the arrows  .

The submenus under "Version" show the memory versions:
- CPU 086.T0.E0;
- Boot 2.1;
- Display 083.T2.A0;
- Firmware 1.2;
- Bluetooth;
- WIFI;
- VEBOX;
- Turbosteam;
- Group.

Serial number

1

Press the icon  to display The "Serial Number" submenus.

2

1.5 Programming measurements

1

Press the icon  .

2

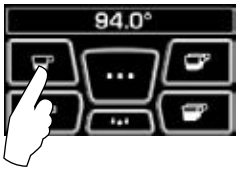
Press one of the coffee groups (example Group 3).

3

The programmable keys' icons are shown on the display.

English

4



When one of the coffee keys is pressed (for example Key 1), the following parameters are displayed on the services display:
 water dose;  pre-infusion time;  wetting time.
The key in question will remain highlighted on the unit display.

NOTE. THE  key can also be programmed as DOSED: press the  icon on the parameter display screen:

Press the  icon to return to CONTINUOUS mode.
The other functions of the  key will remain unchanged in both configurations.

5

All parameters can be adjusted:
 water dose (using the  and  keys);
 pre-infusion time (using the keys );
 wetting time (pressing the icon  will transform the icon into  which will allow the time to adjusted with the keys  . Press the  icon when the adjustment is complete).

Press the  icon to confirm the information entered.

EXAMPLE  :

3.5 shows the duration in seconds of the pre-infusion phase.

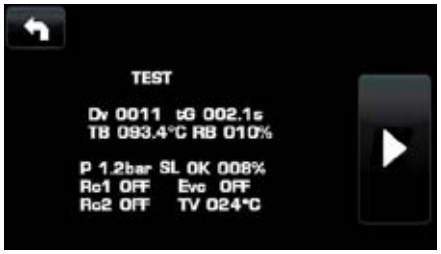
1.0 shows the duration in seconds of the wetting phase.

 Grinder/dispenser selected can be associated with each key type.

 Possibility to change the colour associated with each key type.

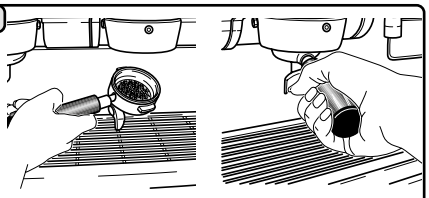
6

By pressing the key  , the dispensing starts and the following screen appears on the services display:



The parameters displayed are:
Dv: *Volumetric meter incremental counter*
tG: *dispensing time*
TB: *instant coffee boiler temperature*
RB: *% activation coffee boiler heating element*
P: *service boiler pressure*
SL: *service boiler water level; % level signal*
Rc: *service boiler heating element*
Evc: *Boiler-water-supply solenoid valve*
TV: *Turbosteam wand steam temperature*

1



Hook the filter holder with the dose of ground coffee to the group.

2

Press one of the coffee groups (example Group 3).

3

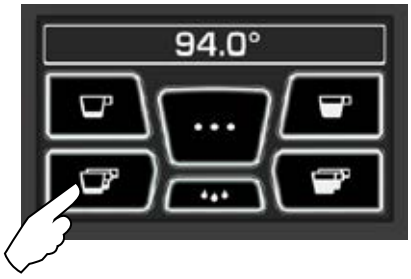
Press the key  ; a red outline and the buzzer indicate the SELF-LEARNING phase.

English

4

Place the cup or cups underneath the filter holder nozzles.

The numbers relative to each key appear on the group display.

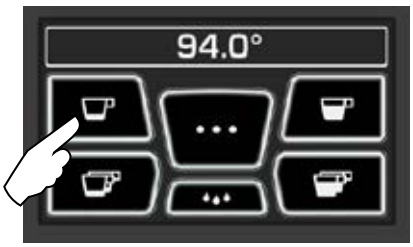


5

Push the button to be programmed (e.g. key 1): the icon of the key in question remains selected on the display.

When the desired level is reached in the cup or cups, press the key again.

Continue with any additional programming of the coffee buttons.



6

By pushing the coffee buttons on the services display, the doses entered can be viewed, with the values of the impulses of the volumetric dosing devices.

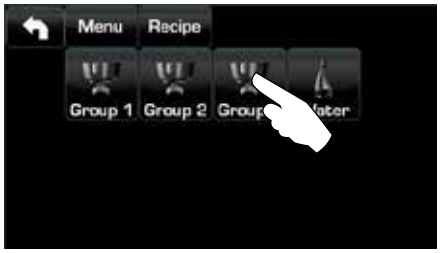
The doses entered with the self-learning function can be corrected manually using the +/- keys.

Afterwards, confirm the values by pressing the OK key.

Clone function

This feature allows you to replicate the selected coffee unit settings for all other machine groups.

1



Press one of the coffee groups (example  Group 3).

2

Push the Clone icon  .

3

Push the icon 

to confirm.

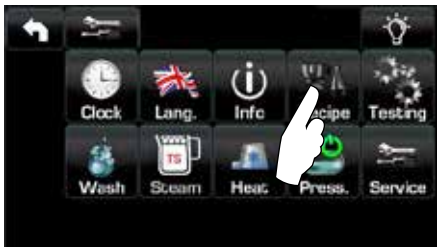
4

At the end of the process, all the groups will have the same parameters.

English

Water dose programming

1



Press the icon  .

2

Press the icon  . These parameters can be configured:
SET… - to set the dispensing time;
% - to set the water temperature.

NOTE: -  the red border around the icon indicates the key being changed.
- the TEST phase for the water keys is similar to the one for the coffee keys.

Press the  icon to confirm the information entered.

Water dose programming using the "self-learning" function

1

Place a container suitable for the amount you wish to fill beneath the hot-water outlet and press the  icon.

2

The buzzer sound and the red border around the  icon indicate theSELF-LEARNING STAGE.

3

Press key to be programmed. When the desired level is reached in the container press the key again.

Continue with any additional programming of the keys.

4

Press  to exit the SELF-LEARNING phase.

5

The buzzer sound will stop and the red border at the top left of the  icon will disappear.

6

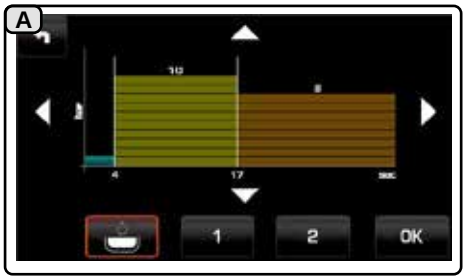
The dispensing time and temperature of the water added will be displayed which can be corrected manually using the buttons  .
Afterwards, confirm the values by pressing the  icon.

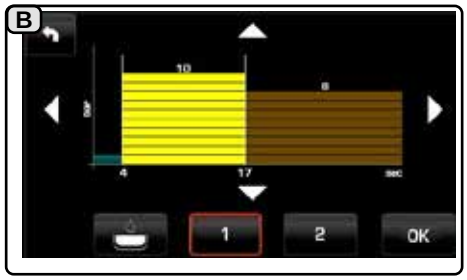
English

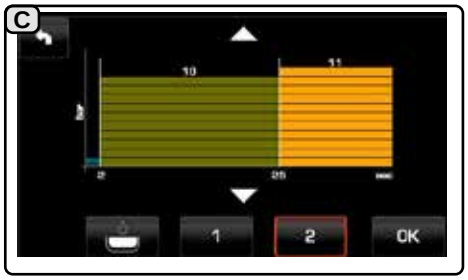
English

Pressure profile (only on “PROFILE” machines)

This function allows you to set the pressure profile with which the coffee is dispensed.



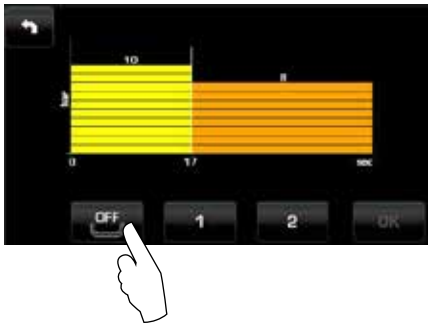




English

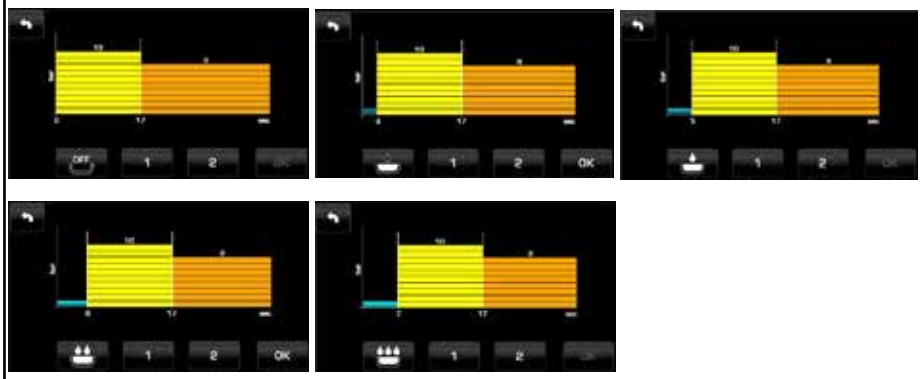
Available profiles

1



Wetting and pre-infusion phases, represented by the symbol and relative duration.

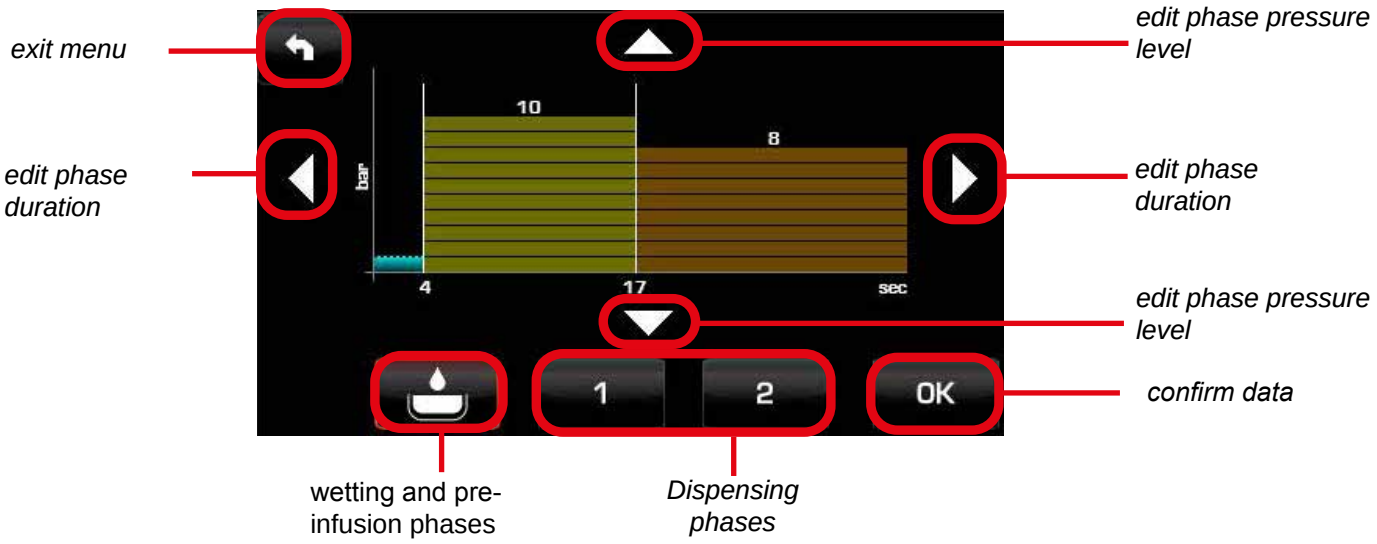
2



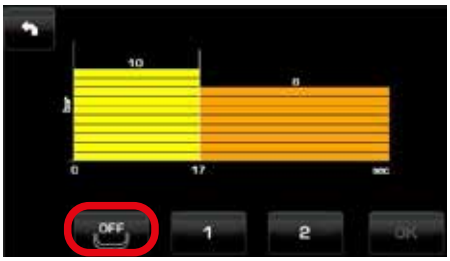
Confirm the changes to the profile by pressing the OK key.
Press the key to exit, leaving the profile in its initial condition.

Edit profiles

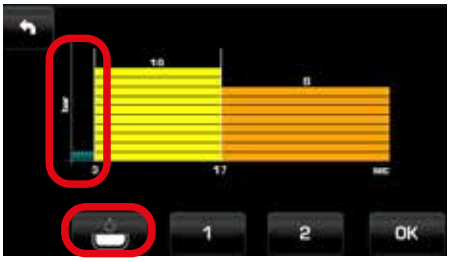
The profiles are customisable by changing the duration and pressure of the individual dispensing phases.



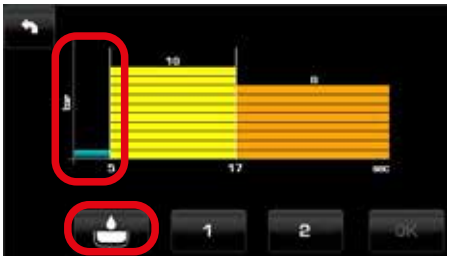
The numbers which appear on the graph identify the phase parameters.
For example, **phase 1** will have a duration of 17 seconds at 10 bar.



wetting and pre-infusion OFF



wetting OFF pre-infusion active



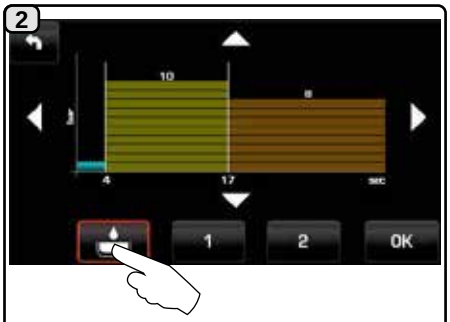
wetting and pre-infusion active

The following illustrates, in detail, how to proceed; the individual phases of the ***3 short coffees key of unit 3*** will be edited.

1

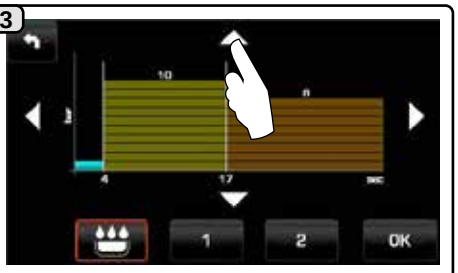
Press the icon  of the key.

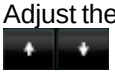
2



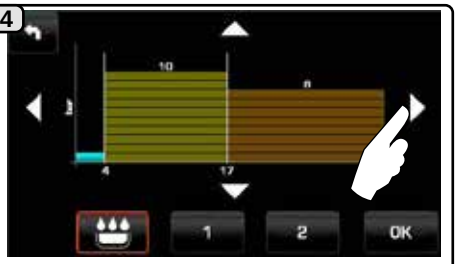
Choose the phase to edit.

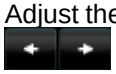
3



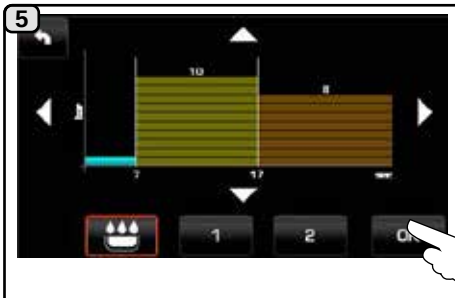
Adjust the pre-infusion level using the  keys.

4

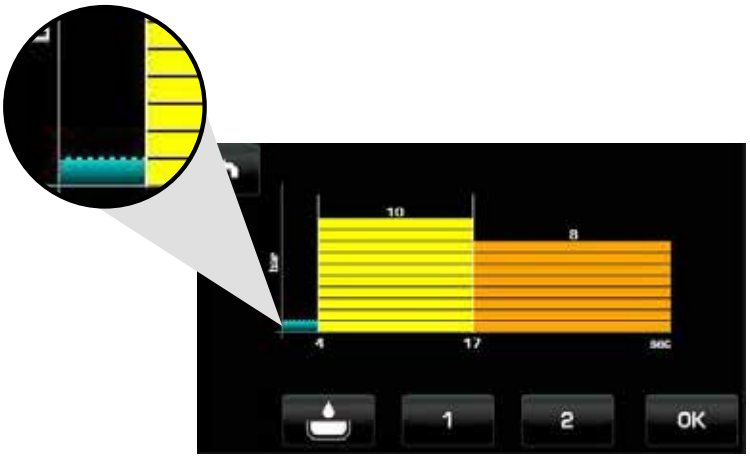


Adjust the phase duration using the  keys.

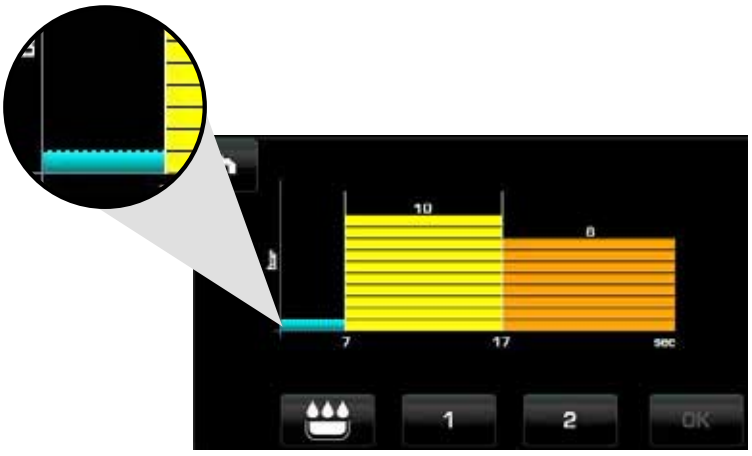
5



Confirm the changes to the profile by pressing the OK key.
Press the  key to exit, leaving the profile in its initial condition.



Initial profile

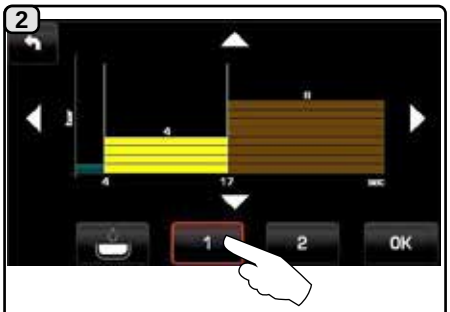


Edited profile

1

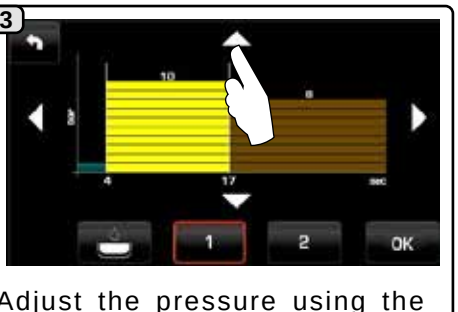
Press the icon  of the key.

2



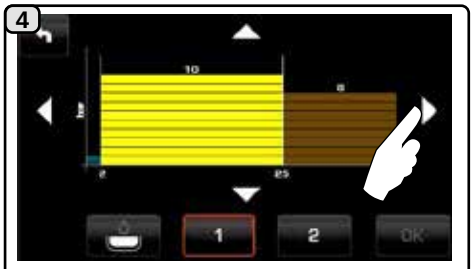
Choose the phase to edit.

3



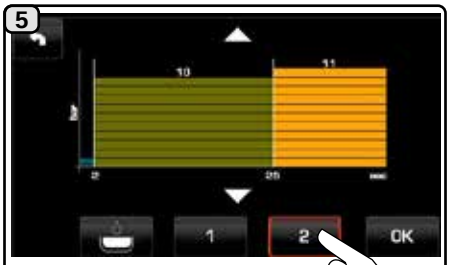
Adjust the pressure using the  keys.

4



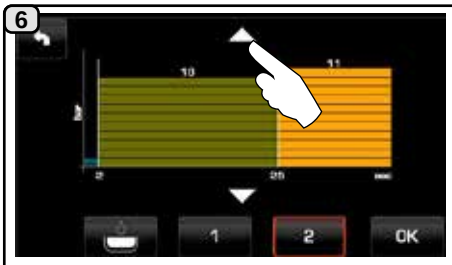
Adjust the duration using the  keys.

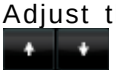
5



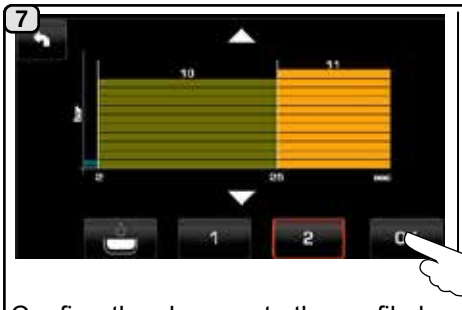
Choose another phase to edit.

6



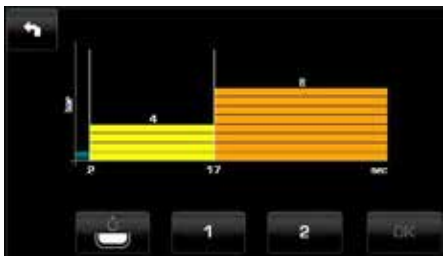
Adjust the pressure using the  keys.

7

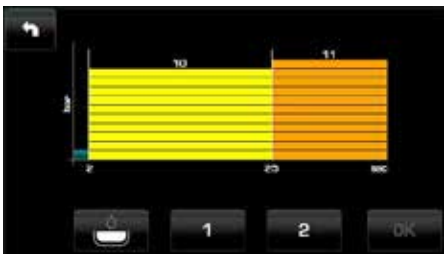


Confirm the changes to the profile by pressing the  key.
Press the  key to exit, leaving the profile in its initial condition.

The change in pressure profile associated with the ***3 short coffees key of group 3*** can be seen when comparing the initial profile with the edited profile:



Initial profile



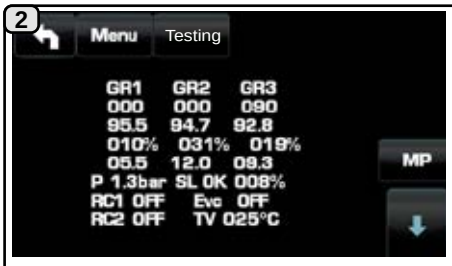
Edited profile

1.6 Testing

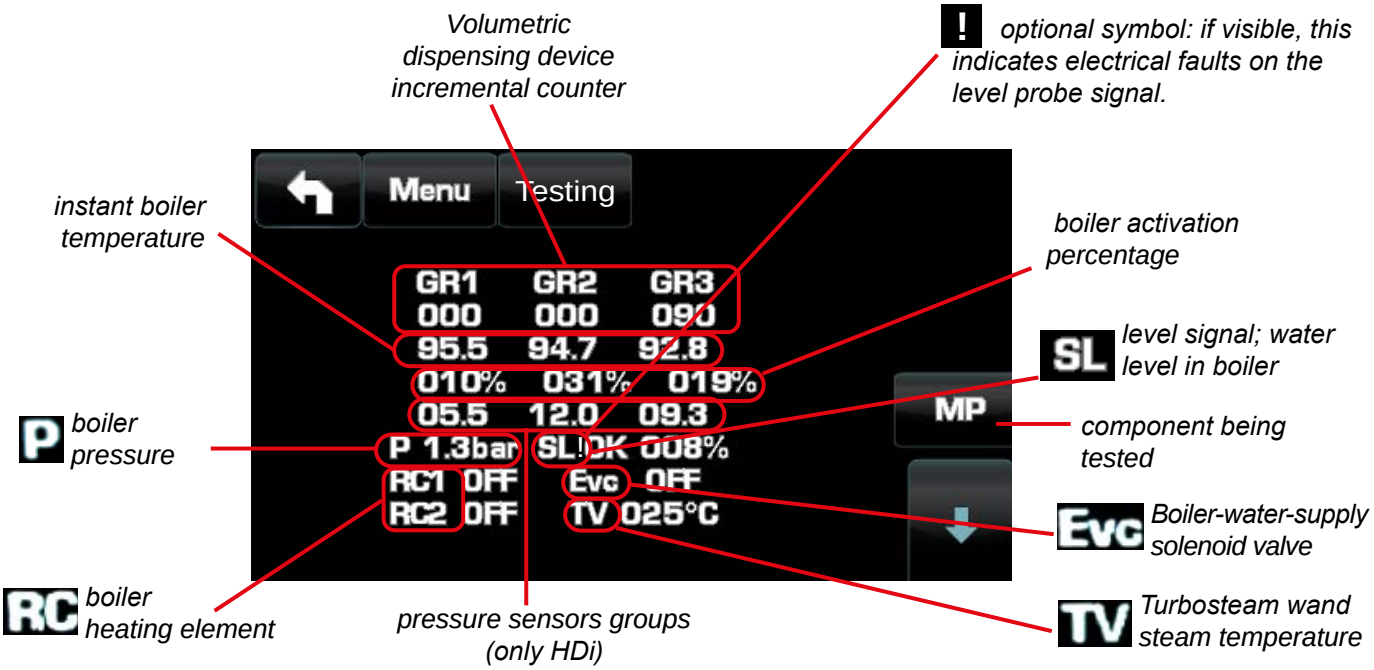
1

Push  .

2



The testing screen makes it possible to manually operate the machine components.



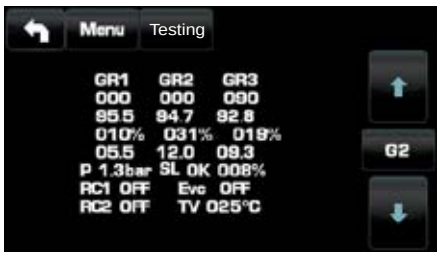
Boiler activation percentage: Modulation percentage of the heating power of the boiler.

RC **Boiler resistance:** Activation of resistance elements based on power selected.

Total power divided into: RC1 = ⅔ - RC2 = ⅓

Full power cycle: RC1 ON / RC2 ON — RC1 OFF / RC2 OFF

Lower power cycle: RC1 ON / RC2 OFF — RC1 OFF / RC2 OFF



Press the icons  to select the parts to be moved ; the operation is performed by pushing the button which indicates the name of the part.

Below are the symbols used to define the components that can be accessed for movement:

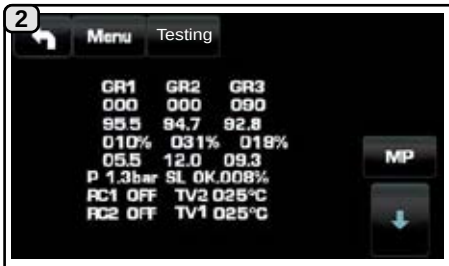
MP	pump motor
G1~G4	Dispense-coffee solenoid valve
Eac	Hot water solenoid valve
Eaf	Cold-water solenoid valve
Ev	Steam solenoid valve
Evc	Charge-boiler solenoid valve
Ets	Turbosteam solenoid valve*
MC	Turbosteam motor compressor*
Eds	Drying solenoid valve*
Em-Erp	Milk solenoid valve/ Pressure reset solenoid valve*
Gp1–Gp4	Proportional solenoid valve*

The components - * - are only applied with certain product configurations.

1

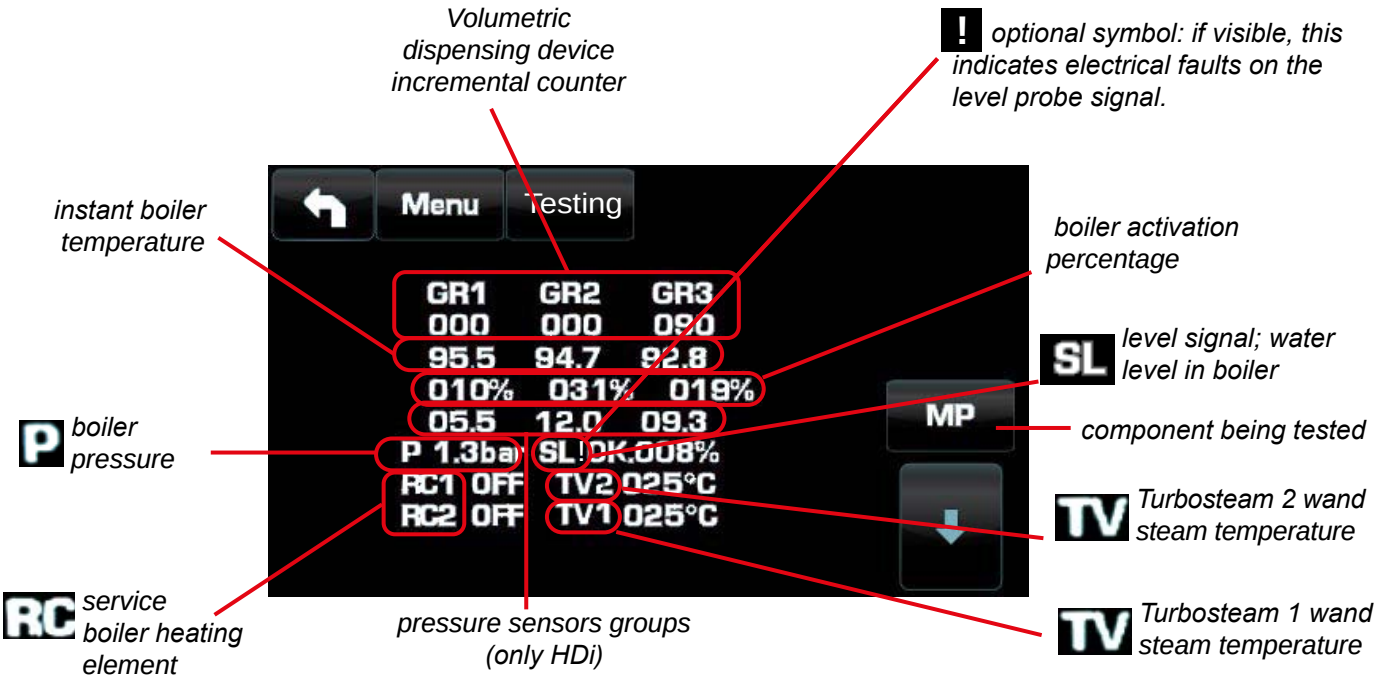
Push  .

2



The testing screen makes it possible to manually operate the machine components.

English



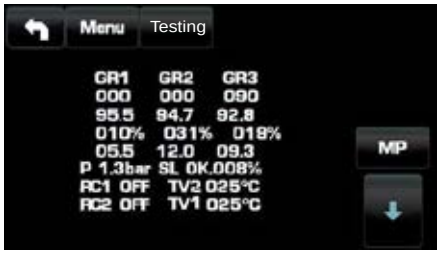
Boiler activation percentage: Modulation percentage of the heating power of the boiler.

RC **Boiler resistance:** Activation of resistance elements based on power selected.

Total power divided into RC1 = ⅔ - RC2 = ⅓

Full power cycle: RC1 ON / RC2 ON Lower power cycle: RC1 ON / RC2 OFF

RC1 OFF / RC2 OFF RC1 OFF / RC2 OFF



Press the icons  to select the parts to be moved ; the operation is performed by pushing the button which indicates the name of the part.

Below are the symbols used to define the components that can be accessed for movement:

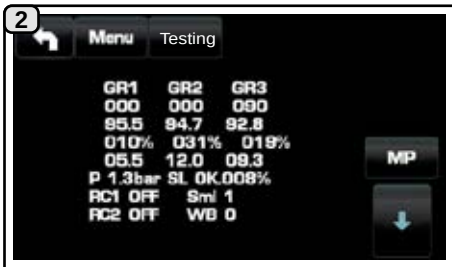
MP	pump motor
G1~G4	Dispense-coffee solenoid valve
Eac	Hot water solenoid valve
Eaf	Cold-water solenoid valve
Ev	Steam solenoid valve
Evc	Charge-boiler solenoid valve
Ets	Turbosteam solenoid valve (right)*
MC	Turbosteam motor compressor (right)*
Ets2	Turbosteam solenoid valve (left)*
MC2	Turbosteam motor compressor (left)*
Eds	Drying solenoid valve*
Em	Milk solenoid valve
Gp1–Gp4	Proportional solenoid valve*

The components - * - are only applied with certain product configurations.

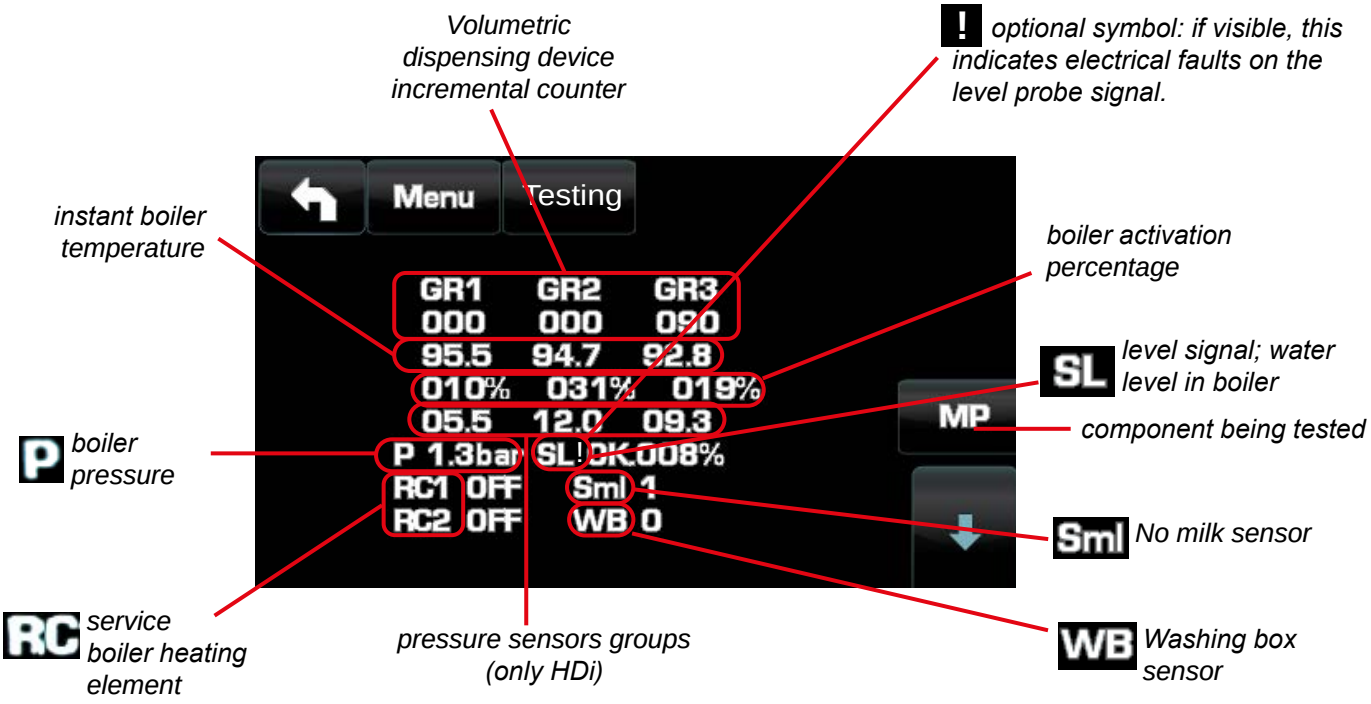
1

Press the icon  .

2

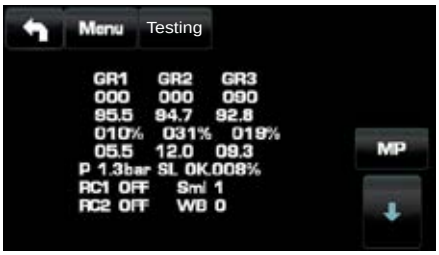


The testing screen makes it possible to manually operate the machine components.



Boiler activation percentage: Modulation percentage of the heating power of the boiler.

RC **Boiler resistance:** Activation of resistance elements based on power selected.
Total power divided into: RC1 = ⅔ - RC2 = ⅓
Full power cycle: RC1 ON / RC2 ON
RC1 OFF / RC2 OFF
Lower power cycle: RC1 ON / RC2 OFF
RC1 OFF / RC2 OFF



Press the icons  to select the parts to be moved ; the operation is performed by pushing the button which indicates the name of the part.

Below are the symbols used to define the components that can be accessed for movement:

MP	pump motor
G1-G3	Dispense-coffee solenoid valve
Eac	Hot water solenoid valve
Eaf	Cold-water solenoid valve
Ev	Steam solenoid valve
Evc	Charge-boiler solenoid valve
Em	Milk solenoid valve
Ed	Diverter solenoid valve
Elf1	Water solenoid valve for milk reconstitution

Edm	Milk diverter solenoid valve
Edar	Air diverter solenoid valve
Esm	Milk safety solenoid valve
Etm	Turbomilk solenoid valve
Elf	Washing solenoid valve
Mpl	Milk pump motor

1.7 Washing

1

Press the icon  .

2

Select from the following wash settings:

- ***Coffee*** 
- ***Milk*** 
- ***Time*** 

3a

Coffee Wash: press the key 

- Select the type of wash cycle to perform  ;
- Confirm by pressing the key  ;
- Follow the instructions on the display.

3b

Coffee Wash: press the key 

Press the  key and follow the instructions on the display.

NOTE: More information on the wash cycle can be found in the "**Cleaning and Maintenance**" chapter."

4

Time: press the key 

This menu makes it possible to set the times requests appear for the water change in the boiler, the coffee circuit wash, and the milk circuit wash.
Select which of the following times to set:

- ***Change*** 
- ***Coffee*** 
- ***Milk*** 

4a

Replacement: press the key 

Change the time depending on your requirements.

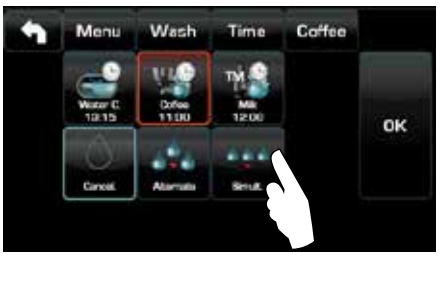
Confirm by pressing the OK key.

The new time appears under the  key.

NOTE: The "*CHANGE*" function with time request is set by the technical personnel who can also enable or disable the "block" function.
With "block" enabled, if the water refill is not done within one hour, the machine prevents the dispensing of the beverages, water and steam.
With a scheduled time request, the user can only change the time the request appears.

4b

Coffee: press the key 



Select which type of coffee wash you want to perform. For example  .

Change the time depending on your requirements and confirm with the OK key.

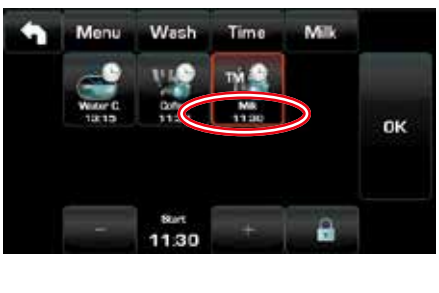
The time appears under the  key.

NOTE: The scheduled wash request can be cancelled by pressing the  key; in this case, no time appears under the  key.

4c

Milk: press the key 

Change the time depending on your requirements and confirm with the OK key.



The new time appears under the  key.

NOTE. It is NOT possible to cancel the scheduled wash request.

Steam dispensing

Heating milk for cappuccino

General instructions

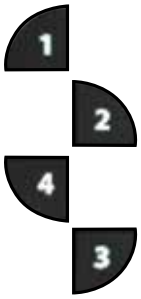
Milk is an organic product. It is delicate and therefore easily alterable. Heat changes its structure. From the moment the container is opened and for the entire period of use, the milk must be kept at a temperature **not exceeding 5°C (41°F)**; our milk storage appliances are suitable for this purpose.

Note: at the end of the business day (or, in any case, not more than 24 hours after opening the container), unused milk must be disposed of.

Dispensing with the Turbosteam selector (13) (where applicable)

Machines equipped with the TURBOSTEAM (STOP STEAM) dispensing system "*stop dispensing steam once a specified temperature is reached*" for rapid heating and milk frothing.

The Turbosteam keys have different functions based on the following configuration:



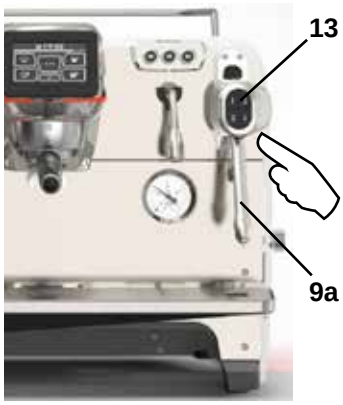
hot milk.

frothed milk (minimum frothing level).

frothed milk (medium frothing level).

frothed milk (high frothing level).

1



Insert the steam nozzle (**9a**) into a suitable container, making sure the bulb is completely immersed in the beverage.

Using the selector (**13**) select what type of milk you want from the 4 available settings (**1 - 4**) and push the appropriate key.

2

The type of frothing selected is displayed on the touch screen during dispensing.

Once the set temperature is reached, the steam will stop automatically.

Dispensing can be stopped at any time by pressing any of the Turbosteam keys (**13**).

Milk dispensing (where applicable)

1

2

The type of milk selected is displayed on the touch screen during dispensing.

When the dose set is reached, the milk stops dispensing automatically.

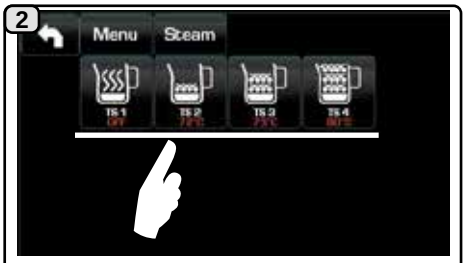
Dispensing can be stopped at any time by pressing any of the keys of the selector (**13**).

1.8 Turbosteam

1

Press the icon  .

2



Press one of the Turbosteam keys.

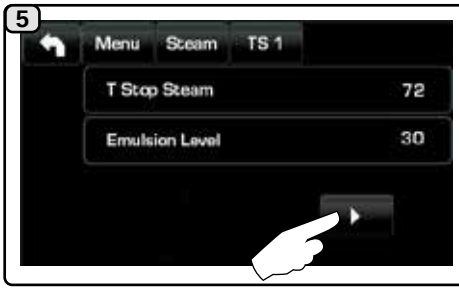
3

Press the parameter to be modified.

4

Set the desired values with the  and  keys.
Confirm the data inserted using the key  or exit and leave the previous data using the key  .

5



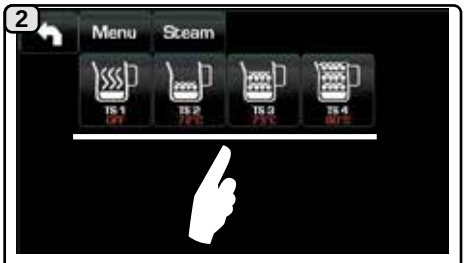
By pressing the  key, the following screen appears on the services display.

(versions with *Turbosteam L and Turbosteam R*)

1

Press the icon  .

2

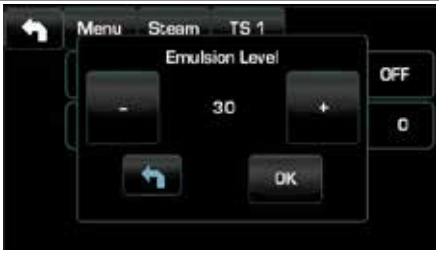


Press one of the Turbosteam keys.

3

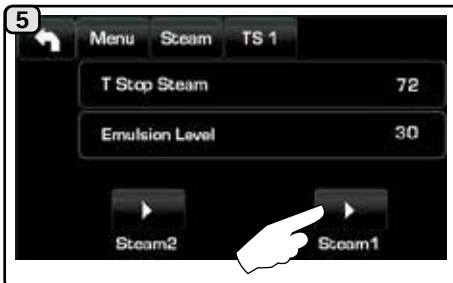
Press the parameter to be modified.

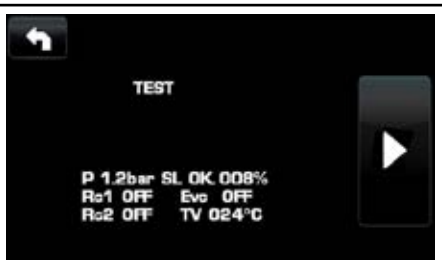
4



Set the desired values with the  and  keys.
Confirm the data inserted using the key  or exit and leave the previous data using the key  .

5





By pressing the  key, the following screen appears on the services display.

Milk (versions with Turbo Milk)

English

1

Press the icon  .

2

Press one of the Turbo Milk keys.

3

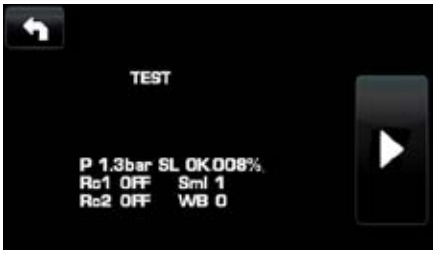
Press the parameter to be modified.

4

Set the desired values with the  keys.
Confirm the data inserted using the key  or exit and leave the previous data using the key  .

Note: pressing the icon  makes it possible to edit the type of key ( cold /  hot)

5



By pressing the  key, the following screen appears on the services display.

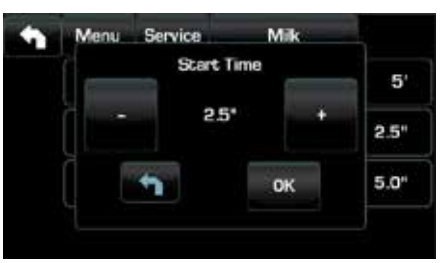
1

Press the icon  .

2

Press the parameter to be modified.

3



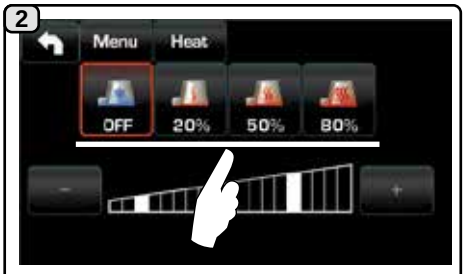
Set the desired values with the  keys.
Confirm the data inserted using the key  or exit and leave the previous data using the key  .

1.9 Cup warmer

1

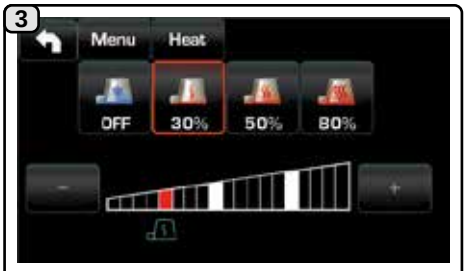
Push the  icon.

2



Select the heating level.

3

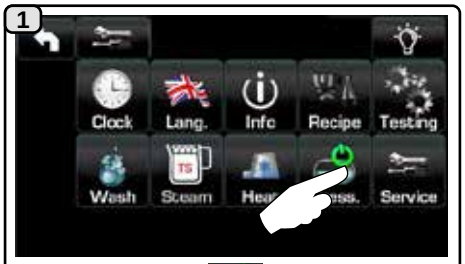


Additional changes can be made using the  key.

1.10 Heating element

The technician can activate or deactivate the heating element (of the service boiler and the boiler) as follows:

1



Press the icon  .

2

Returning to the main menu using the key  , the icon of the cancelled heating element is displayed  : all the heating elements and the self-leveller function of the boiler are deactivated.

Icon  in programming mode = heating element enabled (icon  main menu);

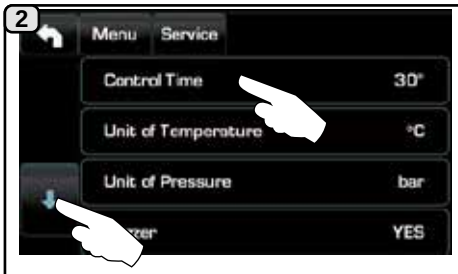
Icon  in programming mode = disabled heating element (icon  main menu);

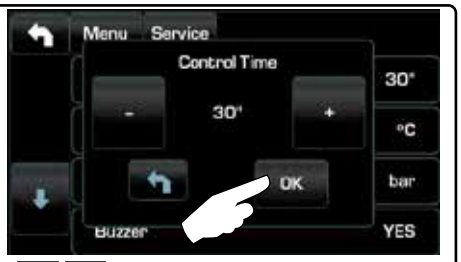
1.11 Programming

1

Press the icon  .

2





Scroll through the items by pressing the  icons.
Configure the individual parameter by pressing the box of the parameter itself.
On the screen that appears, press the desired icon and confirm with OK.

Time control - shows dispensing time on display: YES/NO (from 1 sec to 1 hour).

Temperature Unit - can be set to: °C, degrees centigrade/Celsius, or °F, degrees Fahrenheit.

Pressure Unit - can be set to bar or psi.

Buzzer - enables/disables all acoustic signals when keys are pressed or messages are displayed: YES/NO.

Boiler Pressure - indicates the pressure of the service-boiler; 0.6 to 1.6 bar (9 to 23 psi)

Boiler Temperature - this parameter includes the items for setting the coffee boiler temperature; values that can be set are 60°C – 110°C (140°F – 230°F) with intervals of 0.5°C. Programmable group temperature with ability of offset correction (see section on following pages).

Flush - see section "Enabling Flush key" on the following pages.

Low power - YES/NO

User Prog. - user programming: YES/NO.

Lock Prog. - block settings: YES/NO.

Weighting system - allows management of the Acaia scales for weighing the amount of coffee dispensed: YES/NO.

Payment systems - allows a payment system to be configured, when connected.

Grinder Control-1
Grinder Control-2
(only if the machine is connected to a wireless grinder/dispenser).
The following parameters can be set:
- Enabled - MM1 - MM2
Set to "NO" during the machine configuration phase; "YES" once parameters have been entered.
- Adjustment threshold - see section "Steps for Bluetooth Coffee Machine-Grinder/Dispenser Communication" on the following pages.

Bluetooth Menu - see section "*Bluetooth Connection*" on the following pages.

Wi-Fi Menu - see section "Wi-Fi Configuration" in the following pages.

1.11 Programming (CONTINUE)

Level Sensitivity - indicates the degree of sensitivity of the level probe, which then operates the filling of the boiler with water. For safety reasons, automatic level control of the self-leveller service-boiler is disabled when the service-boiler heating element is turned off.
- Note: set a value of 1 if the machine is installed with very conductive water.
- Note: set a value of 3 if the water used is not very conductive (very soft).

SOFTENER Regeneration - includes the parameters for softener regeneration: litres of softener (between 0.1L and 25L), hardness (between 0 and 45°F). The decreasing softener efficiency level is also indicated.

Filter Replacement - when the litre level on the display is reached, a message is displayed for replacement of the filter.
For both functions, an efficiency percentage is displayed (Softener/ Filter), decreasing from 100% to 0%.

Maintenance - includes 4 submenus for setting maintenance parameters:

- Max cycles - the number of cycles set.

- Max days - the number of days set.

- No. cycles/days - this is the number of cycles and days until next maintenance.

- Maintenance - YES/NO.

Enables (YES) or does not enable countdown of the cycles and days until the next maintenance activity.

Bds - see section “BDS Activation” in the following pages.

Screensaver - possibility of programming the screensaver display time (from 30 sec to 20 min)

Standard data - allows loading of standard data or reconfiguration of the machine. In both cases, the machine is automatically restarted.

Password - allows the code to be changed to access technical programming.

English

Boiler Temperature

1

Press the icon  .

2

Scroll through the items by pressing the  icons.

Press the icon Coffee Boiler.

3

Press the offset  icon.

4

Set the desired values using the "**+**" and "**-**" icons.

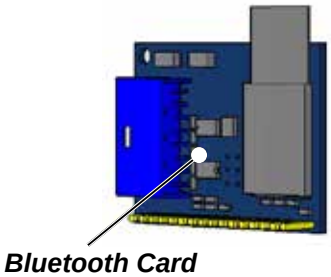
NOTE: a temperature offset can be set for the boiler adjustable by ±2°C.

Each dot corresponds to approximately half a degree centigrade of offset.

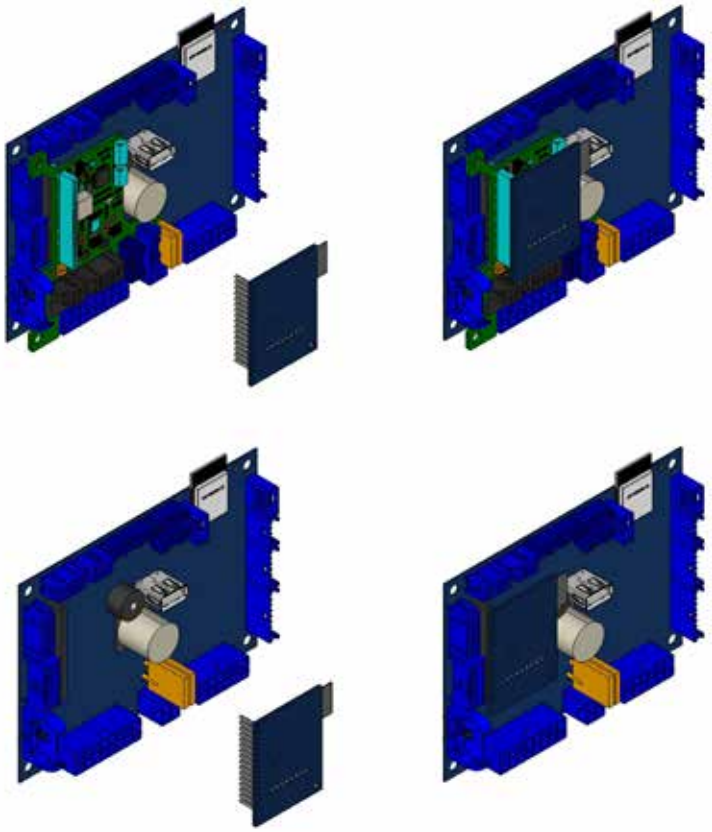
Confirm the data inserted using the icon OK or exit and leave the previous data using the icon  .

English

Bluetooth Connection



Bluetooth Card



<u>Bluetooth Menu</u> - The parameters that can be set are:

- MM1-MM2 - 1 to 2 grinders can be connected.

- *Search* - the machine will find all Bluetooth devices within 10 m.

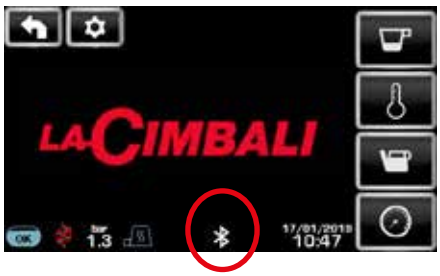
- *Reset* - cancels the connection with the associated device.

Note: during connection with bluetooth grinders/dispensers, the first one connected is set as MM1.

Operations for Machine-Grinder/Dispenser Bluetooth communication

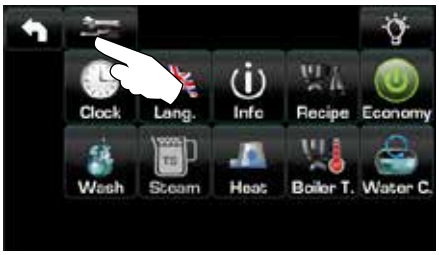
English

1 Turn the machine on; the initial menu appears on the display. The ✱ symbol indicates that the machine can be linked to a Bluetooth device.



To enter TECHNICAL programming, press the icon ⚙.

2



Push 🔧.

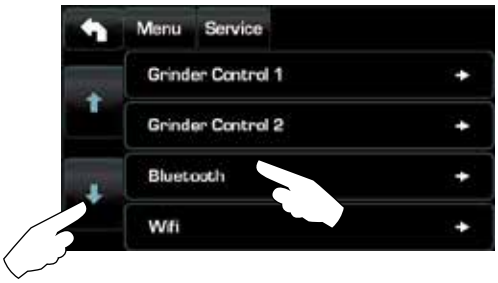
3

Type the password and then press OK.

4

Press the icon 🔧.

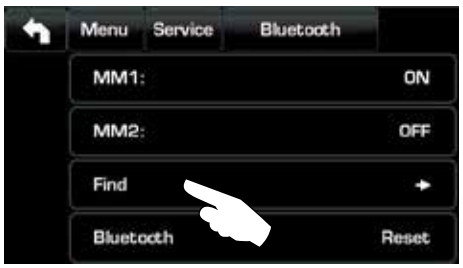
5



1) The items are scrolled by pressing the icons ↓ ↑

2) Press the icon **Bluetooth**.

6



Press the icon **Ricerca**.

7

The machine will find all Bluetooth devices within a range of 10 metres.

8

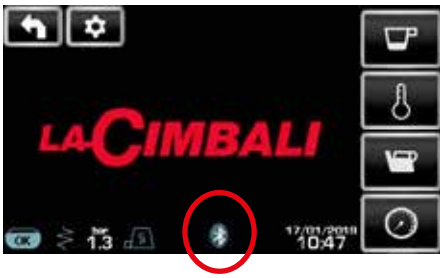
1) The items are scrolled by pressing the icons ↓ ↑

2) Press the icon OK to confirm the selected device, an asterisk will appear ✱ next to the line of the grinder/dispenser to indicate the successful Bluetooth association with the machine:

9

Exit from programming by pressing the icon  .

10

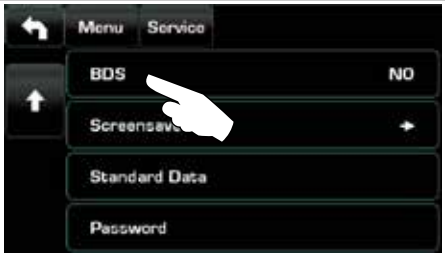


The blue icon  indicates that the machine and grinder/ dispenser are communicating.

English

In the event of communication problems, the "COMMUNICATION FAILURE" message will appear on the display followed by the name of the disconnected grinder/dispenser. The message disappears automatically when the Bluetooth connection is restored. A common cause of this failure is the grinder/dispenser being turned off with the machine turned on.

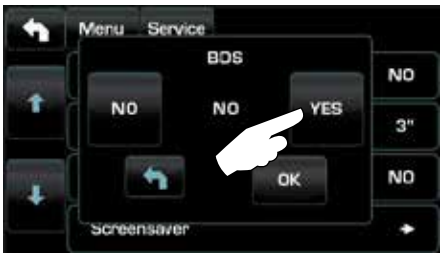
1



1) The items are scrolled by pressing the icons  .

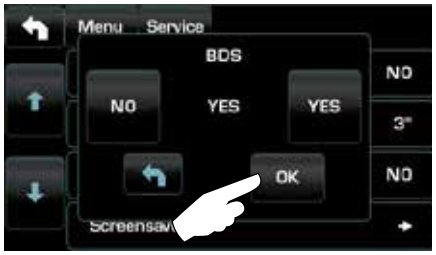
2) Press **BDS**.

2



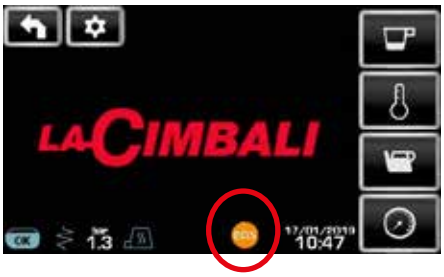
Push the **SI** icon.

3

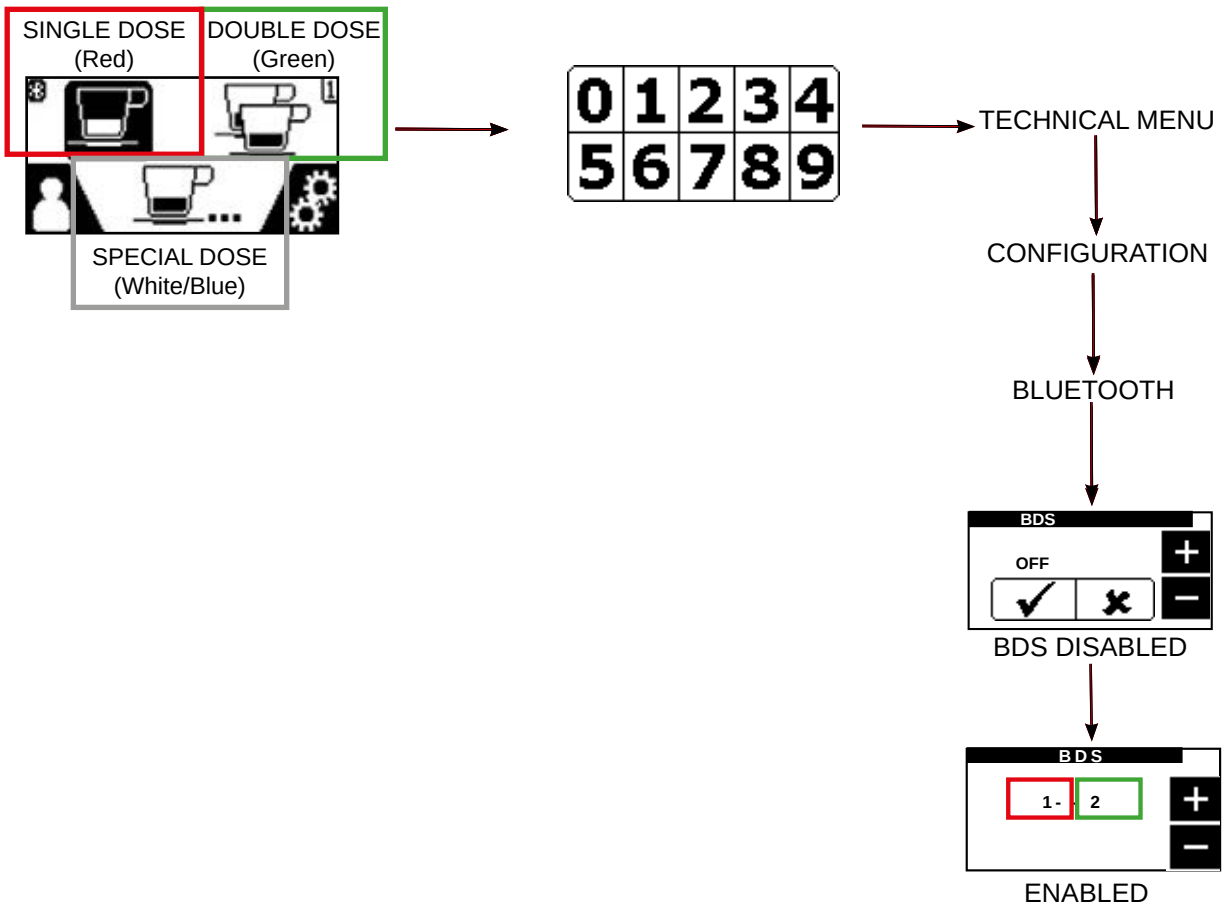


Push the icon **OK** to confirm.

Note: With BDS active the payment systems cannot be activated.



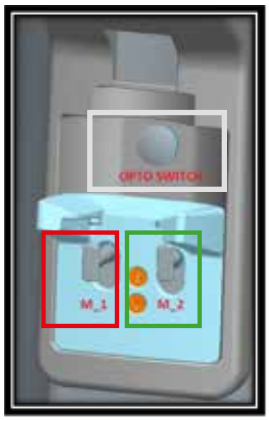
All the TECHNICAL MENU items of the "Magnum Bluetooth" grinder/dispenser can be viewed only after the default technical code has been entered.

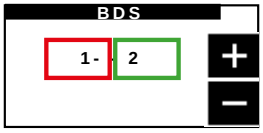


0: sensor disabled

1: single dose (Red)

2: double dose (Green)



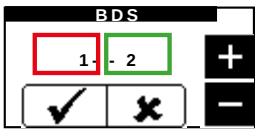


SINGLE DOSE
(Red)

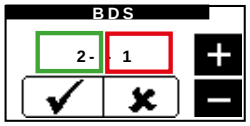
DOUBLE DOSE
(Green)

SPECIAL DOSE
(White)

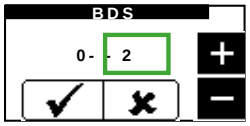
SPECIAL DOSE
(Blue)



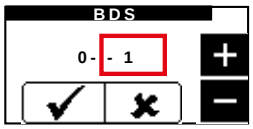
Single dose – Left Sensor (Red)
Double dose – Right Sensor (Green)



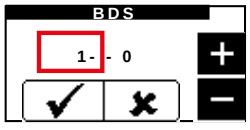
Double dose – Left Sensor (Green)
Single dose – Right Sensor (Red)



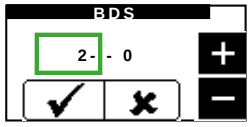
Left Sensor disabled
Double dose – Right Sensor (Green)



Single dose – Right Sensor (Red)
Left Sensor disabled



Single dose – Left Sensor (Red)
Right Sensor disabled



Double dose – Left Sensor (Green)
Right Sensor disabled

-NOTE: ALSO POSSIBILE TO CONNECT WITH GRINDER/DISPENSER 2

GRINDER/DISPENSER 1

The filter holder-key and machine association logic is the following:
1-A or 2-A = activation of the first actuator (filter-holder with single delivery spout)
1-B o 2-B = activation of the second actuator (filter-holder with double delivery spout)
1-C or 2-C = activation of the third actuator with filter-holder with dedicated filter

With the number **1** the first grinder/dispenser **MM1** is identified
With the number **2** the second grinder/dispenser **MM2** is identified

With the letters **A-B and C** the filter-holders are identified

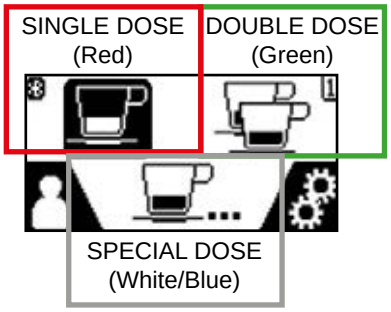
MEDIUM

SHORT

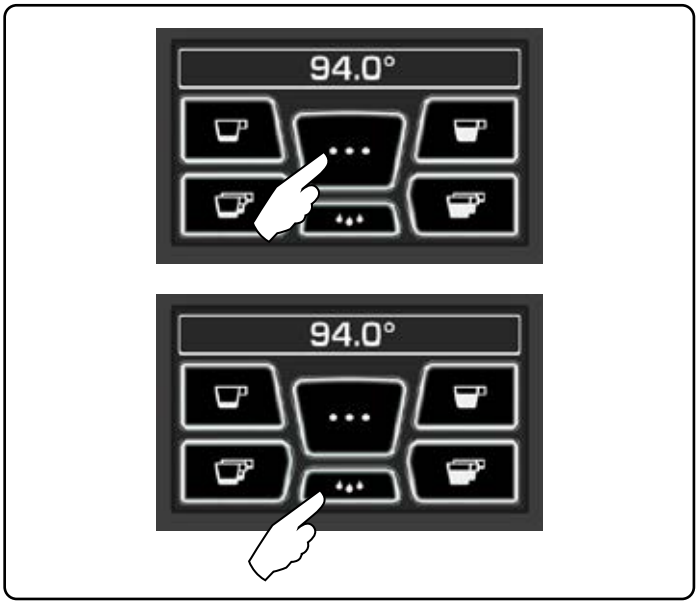
LONG

Every button on the machine can be configured based on the type and the relative grinder/dispenser. Not all types can be used with the BDS system. The possible choices are:

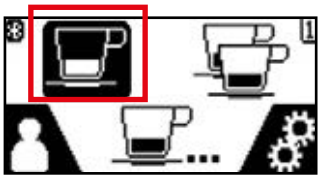
- Single type
- Short
- Medium -> SINGLE DOSE (Red)
- Long -> SPECIAL DOSE (White/Blue)
- Double type
- Short
- Medium -> DOUBLE DOSE (Green)
- Long

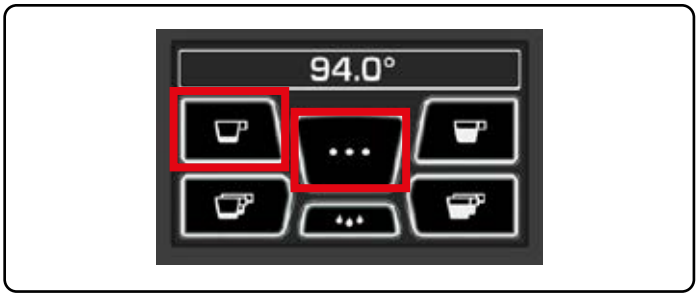


BDS system enabled.
Dispensing disabled (keys off) NOTE: Start/Stop key is always active.



Dose grinding and dispensing activated (key on)



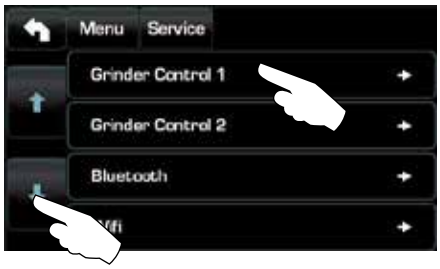


Dispensing will remain active for 2 minutes. During this time, the grinder/dispenser used will be blocked and therefore unable to grind a second dose of coffee.

The grinder/dispenser will automatically release when the enabled key is pressed or when the two minutes of waiting time have elapsed.

English

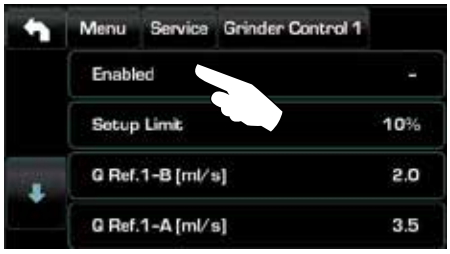
1



1) The items are scrolled by pressing the icons ↓ ↑

2) Press the icon Grinder Control 1

2



Push the Enabled icon.

Grinder Control-1
Grinder Control-2
(only if the machine is connected to a wireless grinder/dispenser).

The parameters that can be set are:

-: not in use.

✓: manual grinder control (for grinder/dispensers with no Bluetooth connection option).

: automatic grinder control (Bluetooth connection with grinder/dispenser).

Note: For proper operation of the grinder control system, keys of the same type (e.g., singular ones relative to grinder/dispenser 1) must be programmed with the same pressure and time parameters in all the phases of the profile.

3

-: not in use

4

✓: manual grinder control (for grinder/dispensers with no Bluetooth connection option.

5

: automatic grinder control (Bluetooth connection with grinder/dispenser).

The parameters can be modified manually using the keys ← →.
After completing operations, confirm the values by pushing the OK key or exit and leave the previous data using the ↩ key.

Grinder control parameters configuration (CONTINUE)

✓: manual grinder control (for grinder/dispensers with no Bluetooth connection option).

1. disable grinder control, if in use.
2. set and calibrate the machine and grinder/dispenser as desired.
3. dispense into the test square all the types of beverages to be used (double coffee, single coffee and any special blend - third key).
4. write down the satisfactory flow values of the coffees for each of the possible three types of beverage.
5. go to the grinder control panel and perform reset.
6. set the flow values for each of the beverages.
7. enable grinder control.

Note: Set the Q.ref of double coffees first for proper functioning of grinder control.

: Method 1: manual setting of Qref.

1. disable grinder control, if in use.
2. connect the machine to the grinder/dispenser via Bluetooth and enable dialogue in the manner already in use.
3. set and calibrate the machine and grinder/dispenser as desired.
4. dispense into the test square all the types of beverages to be used (double coffee, single coffee and any special blend - third magnum key on demand).
5. write down the satisfactory flow values of the coffees for each of the possible three types of beverage.
6. go to the grinder control panel and perform reset.
7. set the flow values for each of the beverages.
8. enable grinder control.

control of the flow (only if in use)

When this animated icon appears, it is necessary to adjust the grinder/dispenser to tighten or loosen the grinder in order to return the coffee dispensing to the default parameters.
The icons that are shown are:

 means that the grinder needs to be loosened. (flow of coffee is lower than the reference).

 means that the grinder needs to be tightened. (flow of coffee is greater than the reference).

Note. The number next to the icon (1 or 2) indicates the grinder/dispenser that must be adjusted.
The icon appears on the display instead of the level symbol.

English

Grinder control parameters configuration (CONTINUE)

: Method 2: setting of Qref in fully self-learning mode.

1. Disable grinder control, if in use.
2. Connect the machine to the grinder/dispenser via Bluetooth and enable dialogue in the manner already in use.
3. Programme and calibrate the machine and grinder/dispenser as desired, dispensing the beverages until a satisfactory cup result is achieved.
4. Go to the grinder control panel and perform reset.
5. Enable grinder control.
6. Exit programming.
7. Dispense double coffees (5 or more) until the message Qref OK appears on the services display (with audible sound).
8. Dispense single coffees (5 or more) until the message Qref OK appears on the services display (with audible signal).
9. Dispense any special blend coffees (5 or more) until the message Qref OK appears on the services display (with audible sound).
10. Enter programming and check that the Qref values set are present.

Repeat the entire procedure for the second grinder/dispenser if present.
The machine is ready to work with the grinder control on.
In the event of problems, dispensing can be performed in the test square with the grinder control in use to see if the symbol * is present beside the flow. Remember that dispensing is deemed valid only if it lasts more than 10 seconds.

Other symbols are used in the test square:

> if the flow is too high compared to the reference, above the upper limit

< if the flow is too low compared to the reference, below the lower limit

* flow within the acceptable range

- dispensing too brief (at least 8 sec but less than 10 sec)
(3) number of remaining coffees to be dispensed and deducted from the count

English

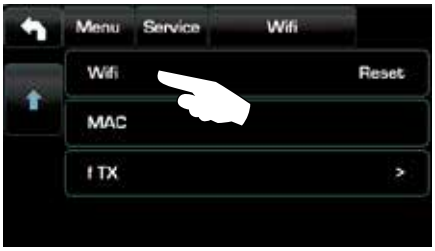
1

1) The items are scrolled by pressing the icons 
2) Press Wifi.

2

Scroll through the items by pushing the  icons.

3



Press the WIFI RESET icon:

4

Reset the parameters with the icon OK - initialization of the standard data:

<u>Wi-Fi Menu</u> - configure the following Wi-Fi settings as shown below:

- ***NETWORK*** - enter the name of the access point.
- ***SECURITY*** - indicate the type of wireless network security:
- ***KEY*** - enter the password to access a protected Wi-Fi network (WPA or WEP)
- ***URL*** - enter <u>listener.gruppocimbali.com</u>.
- ***Port*** - enter <u>61618</u>.
- ***CONNECT*** - to connect to the access point selected.
- ***RSSI*** - signal intensity:
- ***IP*** - displays the IP address assigned to the machine by the wireless access point.
- ***RESET*** - To restore the parameters to the standard parameters.
- ***MAC*** - Represents the Mac address of the machine's Wi-Fi module. This parameter is read-only and cannot be modified.
- ***fTX*** - reduces data transmission to the remote server:

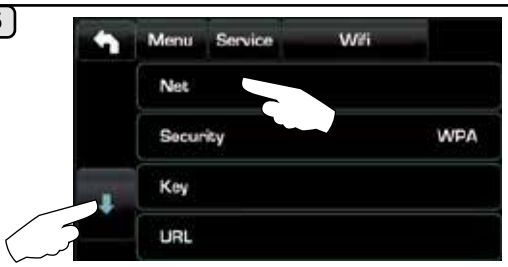
> transmits all data daily upon machine start-up, and faults/washings when they occur;

>> - as per level 1 plus hourly counts;

>>> - as per level 2 plus pings every 10 min. (default).

Place the cursor on the item CONNECT to manually connect to the access point selected; if the configuration of the Wi-Fi module is correct, the following icon appears on the display  .

5



1) The items are scrolled by pressing the icons 
2) Press the icons required to configure the parameters.

6

Enabling Flush key

By entering the programming menu you can activate the FLUSH key.

1

1) The items are scrolled by pressing the icons ↓ ↑.

2) Press **Flush**.

2

Press the icon **+** and Set a time from 0 to 5 seconds.

3

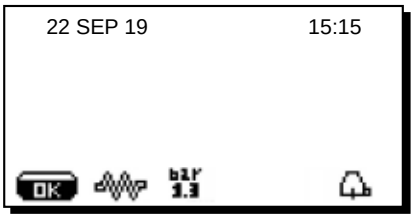
Push the icon **OK** to confirm.

Machine configuration

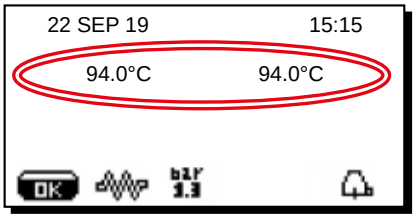
Automatic push-button strip

The machine is available in two configurations:

- PROFILE;
- GT.



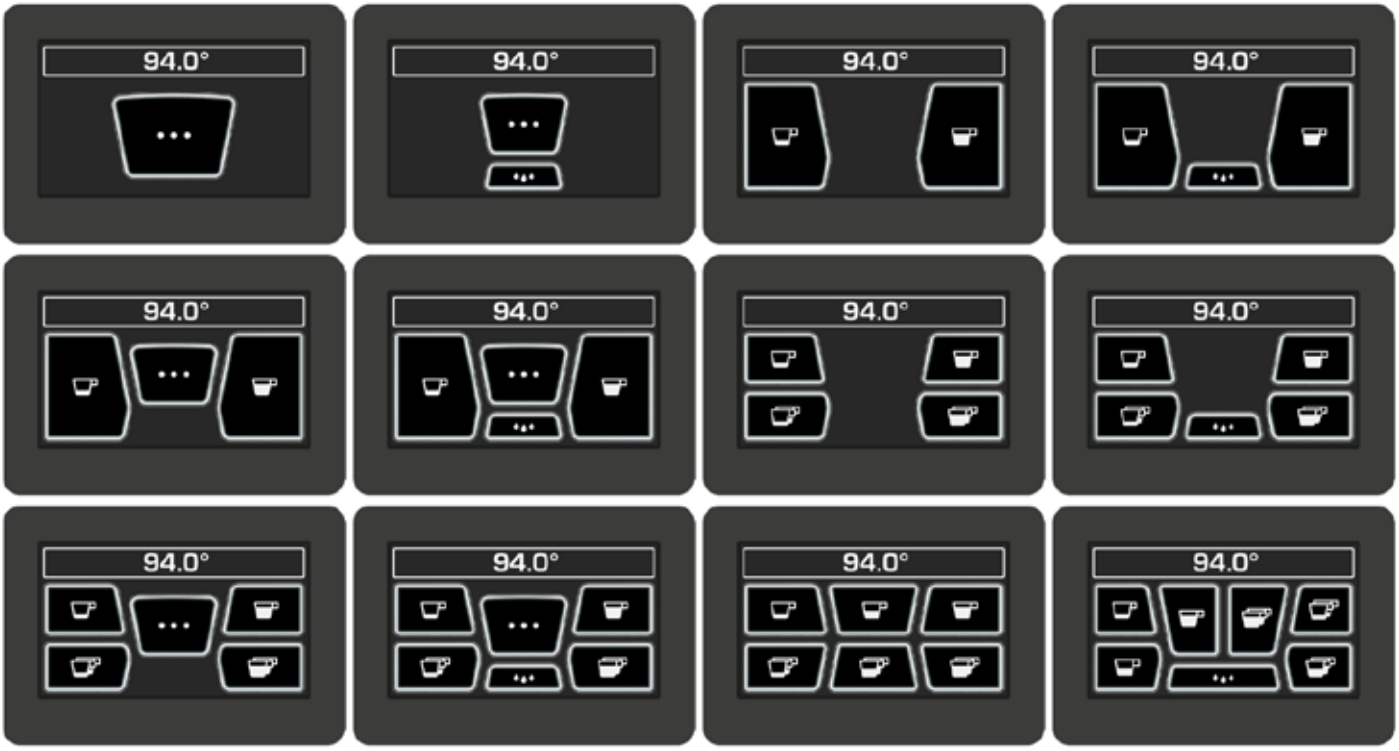
A



GTI

6 keys

The machine can be adjusted with various configurations with dispensing and “flush” buttons set-up as desired.



English

Logo

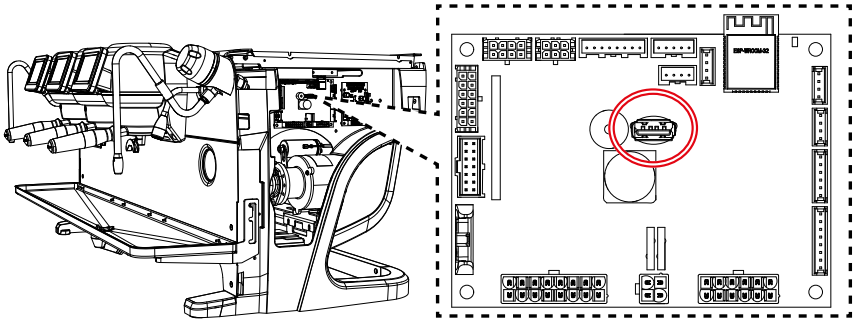
The Cimbali standard logos are shown on all the machine displays after a period of inactivity set in the “Screensaver” menu.

1 Using any graphics program (e.g. Paint), create a file that meets certain characteristics; the prerequisites for *bitmap* images to be used as a logo are:

custlogo.bmp
• width less than or equal to **480 pixels**; • length less than or equal to **272 pixels**. • **24-bit bmp** colour.

If the user wants to display a logo for the groups display, copy the “***custlogo.bmp***” files onto a USB pendrive.

2 After removing the side panel (as indicated in the "DISASSEMBLY" section), insert the USB pen drive into the dedicated port on the machine board:



3 The  icon will appear on the display:

4 Turn the machine off and back on again; when it comes back on the following will appear on the display:

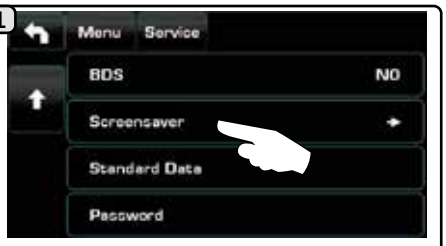
5 Press OK and wait for the file to load:

6 Once loading is complete, remove the USB pen drive from the machine.

Note: if the screensaver is activated, the logos can be seen immediately, without waiting for the period of inactivity, every time the user turns off the analogic pressure gauge.

Standard logo display.

1



Return to the programming menu and press the icon **Screensaver**.

2

Push the **Logo** icon.

3

Push the → icon.

4

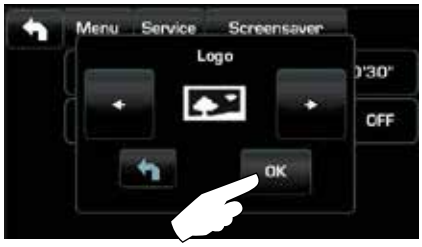
Push the icon **OK** to confirm.

5

The standard logo will appear on the display after the programmed idle time.

Customised logo display.

6 Select the LOGO entry to display the customised logo on all the displays (the logo will appear after the programmed time)



Push the icon **OK** to confirm.

7

The customised logo will appear on the display after the programmed idle time.

Note: only one custom image can be loaded at a time for the Screensaver function. If a new image is loaded, the previous one will be overwritten.

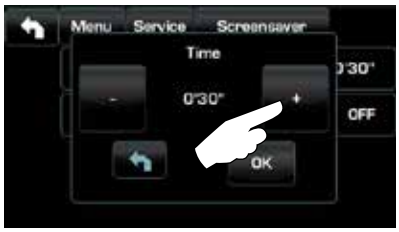
Time

Possibility of programming the screensaver display time (from 30" to 20') with steps of 30 seconds.

1

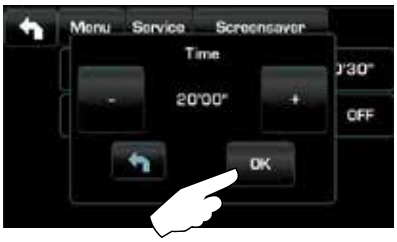
Return to the programming menu and press the icon **Time**.

2



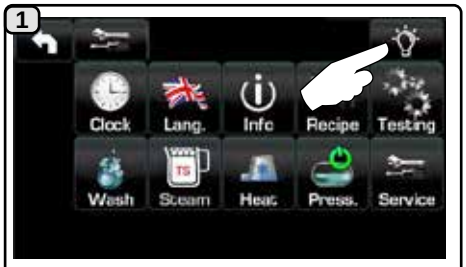
Push the **+** icon.

3



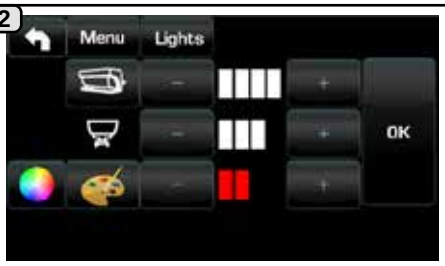
Push the icon **OK** to confirm.

1



Push the  icon.

2



This menu allows adjustment of the machine lights. Specifically:

- rear led bar 

- groups light  ***.***

- side lights  ***.***

Set the desired values with the  keys:

- lights on at maximum brightness  ;
- lights off  .

For the side lights, the user can choose:

- a preferred colour out of those available with the  icon;
- a customised colour with the  icon. In this case, the RGB colour range will appear for customisation

The changes will be applied after the data entered is confirmed with the icon  .

All machine lights can be adjusted and are activated simultaneously with the start-up of the device.

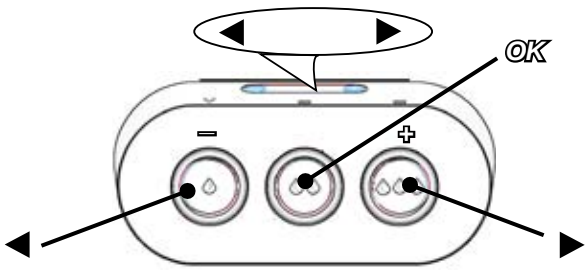
NOTE. Continuous lighting (24 hours a day, 7 days a week) can be activated by pressing the  icon.

This function is activated when the **24/7** is displayed  .

English

2. TECHNICAL PROGRAMMING (AUTOMATIC PUSH-BUTTON STRIP)

2.1 Technical programming access “Automatic push-button strip”

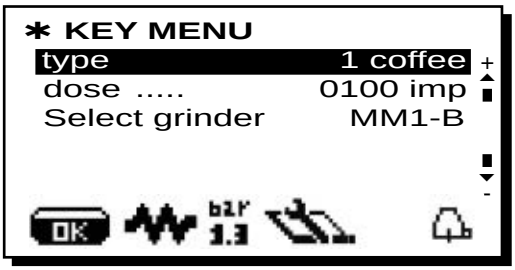


To enter programming, press the ◀ key twice and then the ▶ key for at least 3 seconds. The following message will appear on the display:

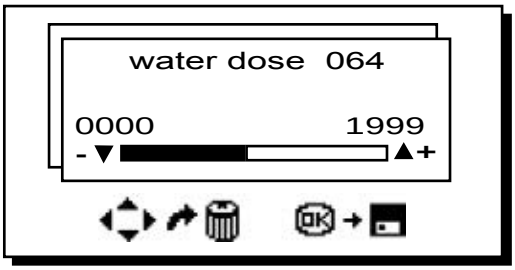
Display available menus: using the ▲ and ▼ keys, press the ▶ key

Accessing the menus: position the cursor on the desired line using the ▲ and ▼ keys, then press the ▶ key (press a selection key in the case of the “SELECT KEY” menu)

Changing menus and sub-menus: position the cursor on the desired line using the ▲ and ▼ keys and then press ▶

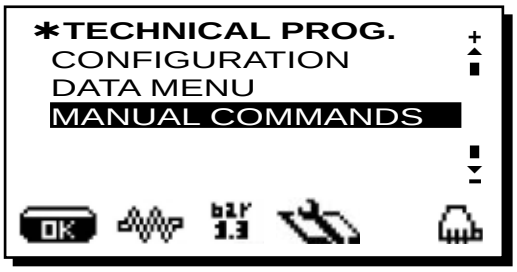


Change the selection or value, again using the ▲ and ▼ keys
Note: when editing data, the cursor becomes "→" or a slider bar appears with the minimum and maximum values that can be set:



Exiting the programming panels: there are two options:
1) Confirm the changes by pressing the “**OK**” key
2) Exit the menu, leaving the data unchanged, by pressing ◀

Enter TECHNICAL programming mode by pressing the ▶ key; the message below will appear on the display and then the following page by scrolling down.



Individual items are detailed below.

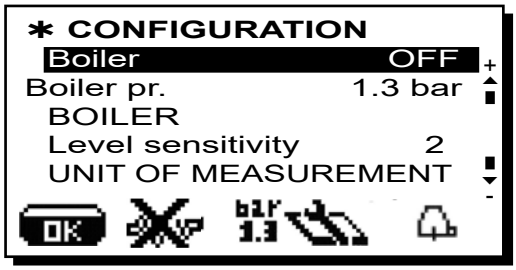
Heating element

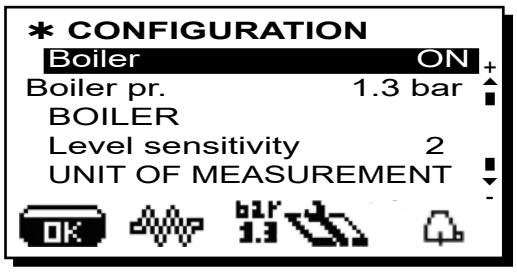
The technician can activate or deactivate the heating element (if the service boiler heating element is disabled, self-leveller control is inhibited) as follows:

1) Access the technical programming panels;

2) position the cursor over ***"BOILER"*** using the ▲ and ▼ keys in the machine's configuration menu and press the ▶ key;

3) adjust the parameter using the ▲ and ▼ keys and confirm the adjustment made by pressing the ***OK*** key or exit the menu and leave the data unchanged using the ◀ key.



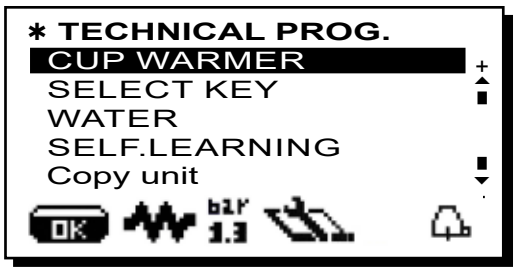


English

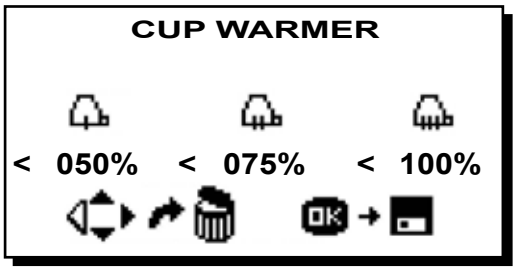
"Boiler" **OFF** = heating element disabled (main menu icon);

"Boiler"**ON** = heating element enabled (main menu icon);

2.2 "CUP WARMER" Menu



Press and hold the ▶ key to access the configuration screen:



1) Select the heating levels to be configured using the keys ▶
2) adjust the power percentage of the levels according to their own needs with the keys ▲ ▼.
3 confirm the selections with the "**OK**" key or exit the menu leaving the data unchanged by pressing the ◀ key.

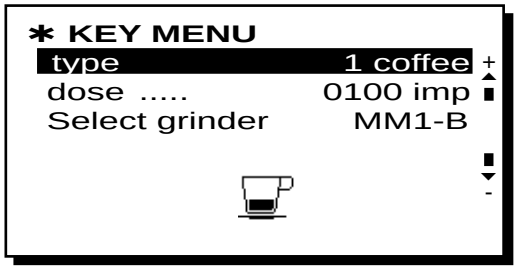
- = maximum power symbol
- = medium power symbol
- = minimum power symbol
- no symbol = OFF

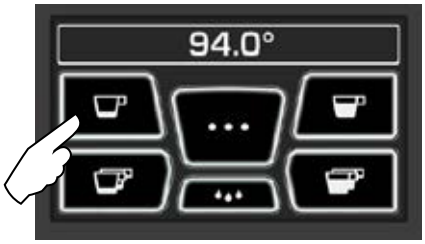
Pressing the key ▶ several times changes the intensity of the cup warmer's heating element. Select one of the three power levels.

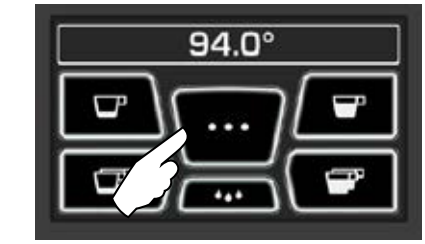
2.3 Key Menu - Coffee Selection

1 Press one of the coffee dispensing keys (the associated LED will remain lit). The display will show:

A Version:

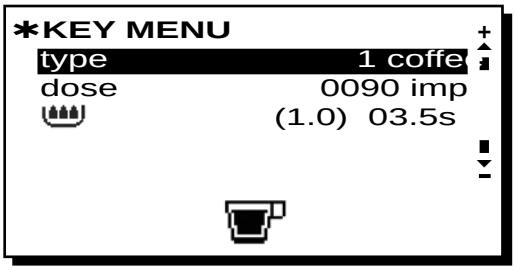






2

GTI version:

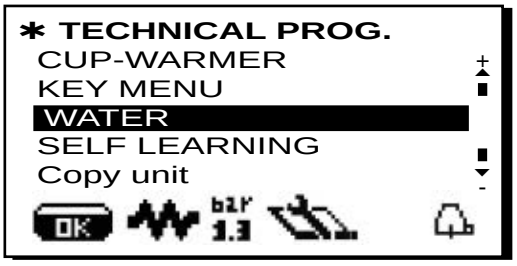


The coffee selection settings that can be changed are:

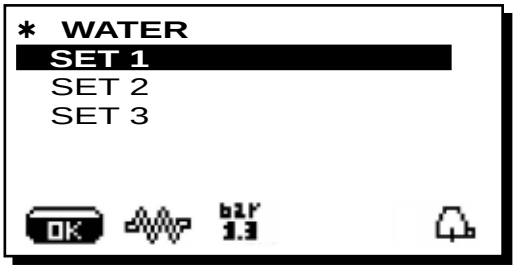
- **type** (key customisation, e.g. 3 espressos for 1 "short, normal, long", 3 espressos for 2 "short, normal, long", stop, disabled).
- **water dose** (volumetric dosing device impulses, 0 - 1999 in steps of 1).
- **select grinder**(grinding-machine customisation) - A vers. - **- MM1- MM2** Option to associate with different types of filter holders for one or two grinder/ dispensers
- **pre-infusion and wetting time** - vers. ***03.5s*** shows the duration in seconds of the pre-infusion phase. ***(1.0)*** shows the duration in seconds of the wetting phase.

2.4 "WATER" Menu

1

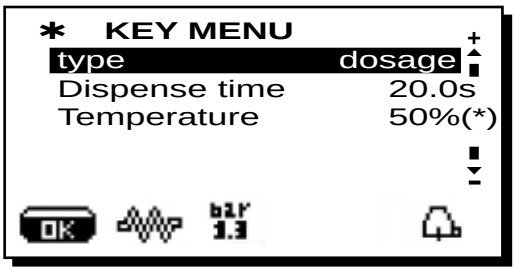


The programmable **SET** keys will appear on the display and the LED light of the corresponding key will remain on.



2

Press the ▶ key to set the following parameters.



The hot water selection settings that can be changed are:

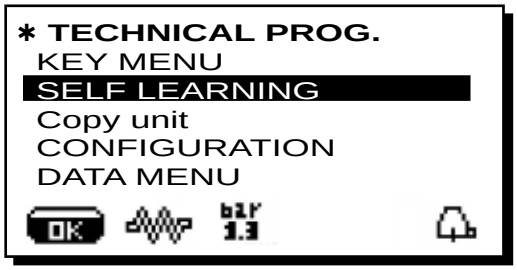
- ***Water dispensing time*** (water dispensing time).
- ***Temperature*** (water temperature). GTI version only

The ***TEST*** phase for the water keys is similar to the one for the coffee keys.

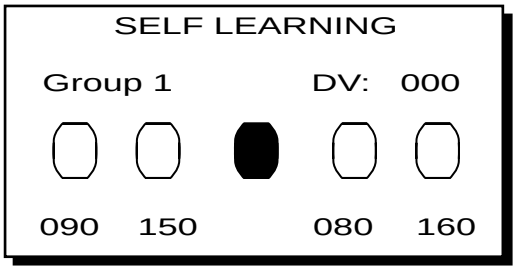
Press the "**OK**" to confirm the information entered.

2.5 Programming measurements using the “self-learning” function

The doses of water for coffee and the hot water doses can also be programmed using the *“SELF-LEARNING”* function.



Use the ▲ and ▼ keys to position the cursor (black line) on the desired line and then press the ▶ key.
The following message will appear on the display:



Coffee doses

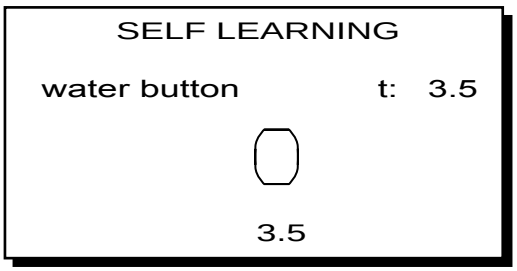
1 - Connect the filter holder with the dose of ground coffee to the unit.
2 - Place the cup or cups underneath the nozzle(s) of the filter holder and press the key to be programmed. Keep the key pressed until the desired level is reached in the cup or cups.

   During this phase, the value of the pulses of the volumetric dispensing device (at the top right-hand side of the display (*)) increases. When the button is released, the value reached is recorded and appears under the key programmed.
3 - Continue to programme all the coffee keys, repeating the steps from number 1.

Hot water doses

1 - Press the button to be programmed. Keep the button pressed until the desired level is reached in the cup.

   During this phase, the time in seconds (at the top right of the display) increases. On releasing the button, the value reached is stored and appears under the key programmed.



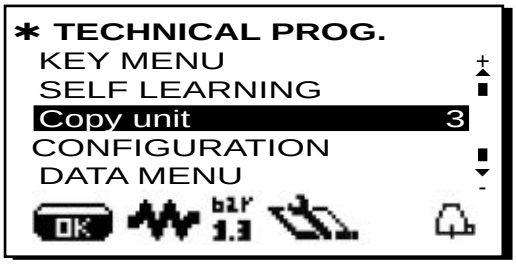
2 - Continue to program all the water buttons, repeating the steps starting with number 1.

When finished, confirm the changes by pressing the “**OK**” key.

English

2.6 "Copy group" function

This feature allows you to copy the selected coffee group settings for all other machine units.



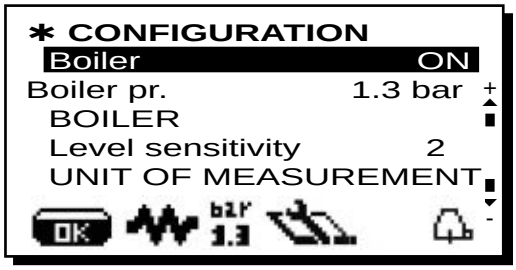
Operate as follows:

1) position the cursor over ***"Copy group"*** using the ▲ and ▼ keys and press the ▶ key;

2) set the group to be copied to the other machine groups by using the ▲ and ▼ keys and confirm by pressing "**OK**" key.

3) at the end of the process, all the units will have the same parameters.

2.7 Configuration Menu



Boiler- The heating element and the self-leveller feature of the boiler are activated or deactivated with the "Boiler" ON/OFF function.

Boiler Pressure- indicates the pressure of the boiler; 0.6–1.6 bar (9–23 psi).

BOILER - this parameter includes the entries for setting the temperature of the boilers, values that can be set are 60 to 110°C (140 to 230°F) in steps of 0.5°C. In this menu there is the possibility of programming a temperature offset for the boilers, adjustable in a range of +/- 2°C. The standard setting is the current value of +1.5°C.

Level Sensitivity - indicates the degree of sensitivity of the level probe, which then operates the filling of the boiler with water. For safety reasons, automatic level control of the self-leveller service-boiler is disabled when the service-boiler heating element is turned off.
- Note: set a value of 1 if the machine is installed with very conductive water.
Set a value of 3 if the water used is not very conductive (very soft).

UNIT OF MEASUREMENT - Includes 2 sub-menus:

temperature - can be set to: °C, centigrade - Celsius or °F, Fahrenheit.

pressure - can be set to bar or psi.

Time control - shows dispensing time on display: YES/NO (from 1 sec to 1 hour).

Buzzer - enables/disables all acoustic signals when keys are pressed or messages are displayed: YES/NO.

Flush - Adjusts the duration of the FLUSH function, adjustable between 0 and 3 seconds.

Low power - YES/NO

WASHING OPTIONS - - Allows the user to select the run time and block time for the "Wash" and "Water change" functions.

Customer programming - Customer programming: YES/NO.
By activating the function (YES), it is possible to provide the user with additional functions:
- change the cup warmer level (but not the level settings)
- turn the coffee boiler on/off.
- activate energy saving mode.

Programming lock - Lock programming lock: YES/NO. By activating the function (YES), all the keys on the programming keypad are locked, including the cup-warmer key. The only actions permitted are the key sequence for technical access, pressing the arrow key ◄ to perform softener regeneration and message removal.

Drying - Varies drying time from 0 to 5 with intervals of 0.1 seconds "if Drying kit is present".

Payment systems - allows a payment system to be configured, when connected.

SOFTENER REGENERATION - Includes the parameters for softener regeneration: litres of softener (between 0.1L and 25L), hardness (between 0 and 45°F). The decreasing softener efficiency level is also indicated.
Once softener regeneration has been performed, return to the main view and press and hold ◄ for about 8 seconds to cancel the message.

FILTER REPLACEMENT - When the litre level on the display is reached, a message is displayed for replacement the filter. For both functions, an efficiency percentage is displayed (Softener/Filter), decreasing from 100% to 0%. Once the filter has been replaced, return to the main view and press and hold ◄ for about 8 seconds to cancel the message.

MAINTENANCE - includes 5 settings for maintenance parameters:

Max cycles - the number of cycles initially set: 40000.

Max days - the number of days initially set: 185.

No. cycles - the number of cycles until the next maintenance activity.

No. days - the number of days until the next maintenance activity.

Reset - options are:

NO, countdown of the cycles and days until the next maintenance activity

YES, the number of cycles (40,000) and days (185) remaining are reset

OFF, all controls related to scheduled maintenance are disabled and the “No. cycles” and “No. days” on the maintenance panel are reset.

Once maintenance has been performed, in order to remove the message a reset must be performed in technical mode.

Standard data - loads standard data: YES/NO.

WI-FI - See section “*Wi-Fi Configuration*” on the following pages.

BLUETOOTH - see section “*Bluetooth Connection”* on the following pages.

BDS - see section “BDS Activation” on the following pages.

GRINDER CONTROL
The following parameters can be set:
- Enabled - MM1 - MM2
- Adjustment threshold - see section "Steps for Bluetooth Coffee Machine-Grinder/Dispenser Communication” on the following pages.

Weighing system - It activates/deactivates the weighing system (if the "Scales Kit" is installed.

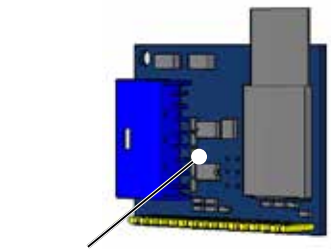
Log reset - clears faults (Wash log, Faults log and Water change) that occurred and were stored by the machine: YES/NO.

English

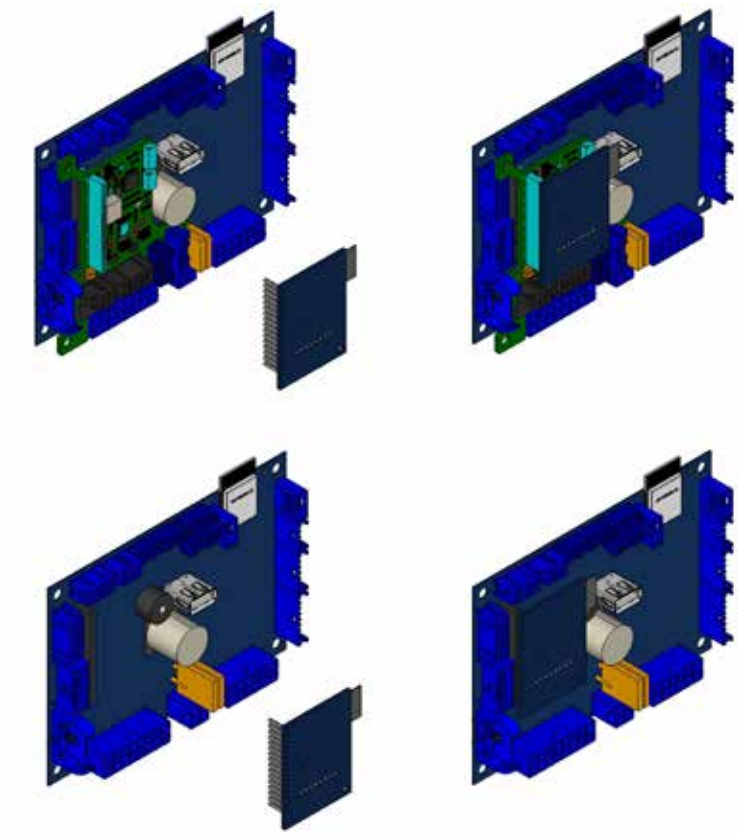
Wi-Fi configuration

Wi-Fi Menu - configure the following Wi-Fi settings as shown below:
- ***CONNECT*** - to connect to the access point selected.
- ***RSSI*** - signal intensity:
Values of less than -70 dB indicate poor coverage with probable difficulty in transmitting data.
- ***IP*** - displays the IP address assigned to the machine by the wireless access point.
- ***MAC*** - indicates the Mac address of the machine Wi-Fi module. This parameter is read-only and cannot be modified.
- ***NETWORK*** - enter the name of the access point.
- ***SECURITY*** - indicate the type of wireless network security:
Open: no protection;
WPA: wpa2-psk protection;
WEP: WEP 128 protection.
- ***KEY*** - enter the password to access a protected Wi-Fi network (WPA or WEP)
- ***URL*** - enter listener.gruppocimbali.com.
- ***Port*** - enter 61618.
- ***fTX*** - reduces data traffic to the remote server:
> - transmits all data daily upon machine start-up, and faults/washings when they occur;
>> - as per level 1 plus hourly counts;
>>> - as per level 2 plus pings every 10 min. (default);
>>>> - as per level 3 with the addition of sending information on coffee dispensing and washing.
- ***RESET*** - To restore the parameters to the standard parameters.

Bluetooth Connection



Bluetooth Card



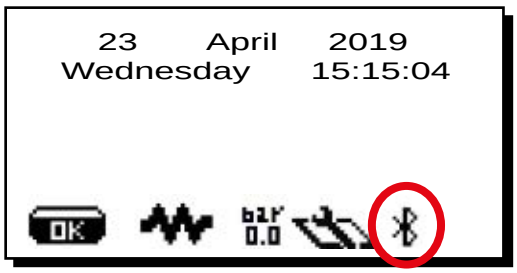
Bluetooth Menu - The parameters that can be set are:
- **MM1-MM2** - 1 to 2 grinders can be connected.
- ***Search*** - the machine will find all Bluetooth devices within 10 m.
- ***Reset*** - cancels the connection with the associated device.

Note: during connection with bluetooth grinders/dispensers, the first one connected is set as MM1.

Operations for Machine-Grinder/Dispenser Bluetooth communication

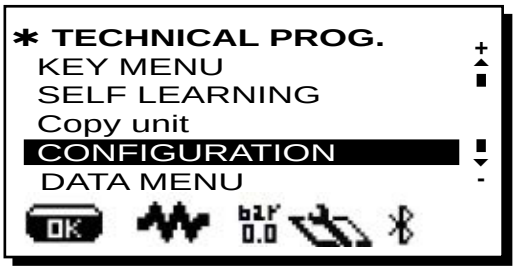
English

1 Turn the machine on; the initial menu appears on the display. The ᛒ symbol indicates that the machine can be linked to a Bluetooth device.

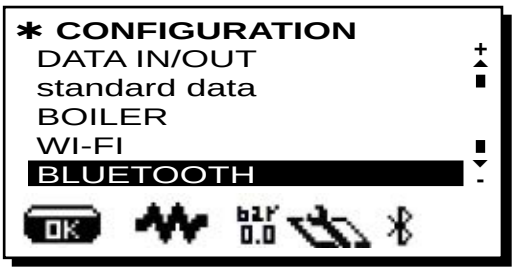


To enter TECHNICAL programming, press the ◄ key and then the ***OK*** key for at least 3 seconds. The message in Point (2) will appear on the display after pressing ►.

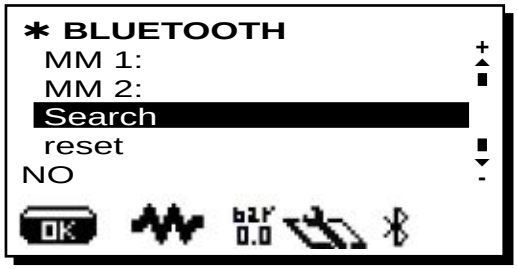
2 With the ▲ and ▼ keys, place the cursor on: "*CONFIGURATION*" in the machine Technical Prog. menu and press the ► key:



3 Position the cursor on the item "*BLUETOOTH*" in the machine's configuration menu and press the ► key.



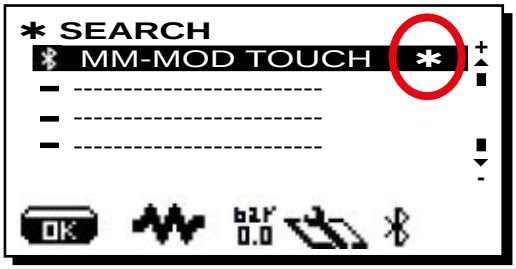
4 Position the cursor on "*SEARCH*" and press ►:



5

The machine will find all Bluetooth devices within a range of 10 metres.

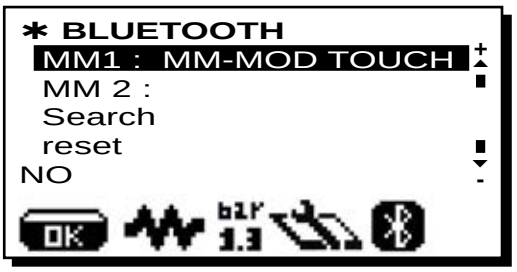
6



1) Scroll through the items by pressing ▲ and ▼ .

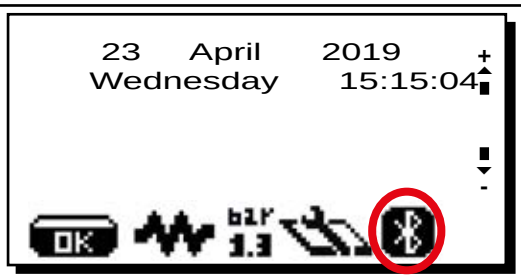
2) Press ***OK*** to confirm the device selected; an asterisk ✱ will appear next to the grinder/dispenser line indicating that the Bluetooth connection has been made with the machine:

7



Exit programming by pressing the ◄ key.

8

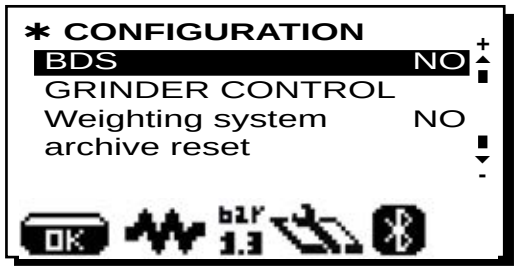


The ᛒ icon indicates that the machine and grinder/dispenser are communicating.

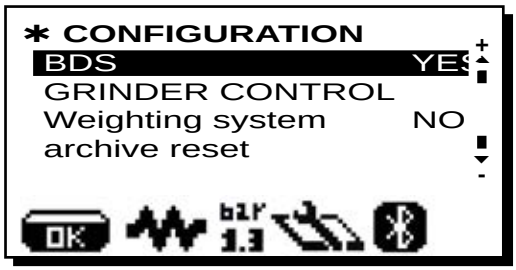
In the event of communication problems, the "COMMUNICATION FAILURE" message will appear on the display followed by the name of the disconnected grinder/dispenser. The message disappears automatically when the Bluetooth connection is restored. A common cause of this failure is the grinder/dispenser being turned off with the machine turned on.

BDS Activation

1 Return to the "*CONFIGURATION*" parameters by pressing the ◄ key; using the ▲ and ▼ keys, move the cursor to "*BDwS*" and press ►:



2 Using the ▲ and ▼ keys, move the arrow to "YES", then press ***OK*** to confirm:

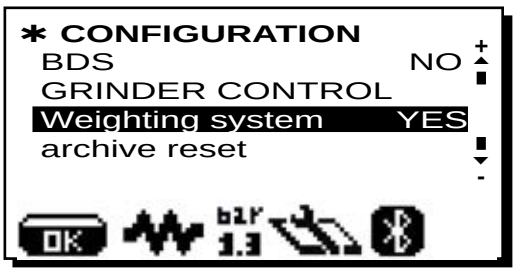


English

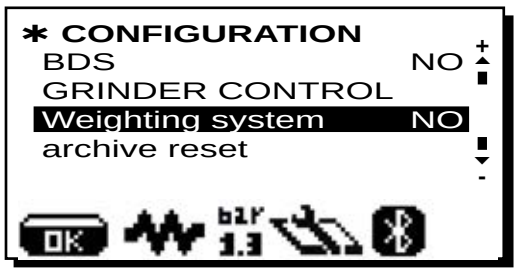
Weighing system

The system is active only if the "Scale kit" has been installed as illustrated in the specific documentation.

1 Return to the "*CONFIGURATION*" parameters by pressing the ◄ key; using the ▲ and ▼ keys, move the cursor to "*Weighing system*" and press the ► key:



2 Using the ▲ and ▼ keys, move the arrow to "YES" or "NO", then press ***OK*** to confirm:



Setting recipes and connections with grinder/dispenser

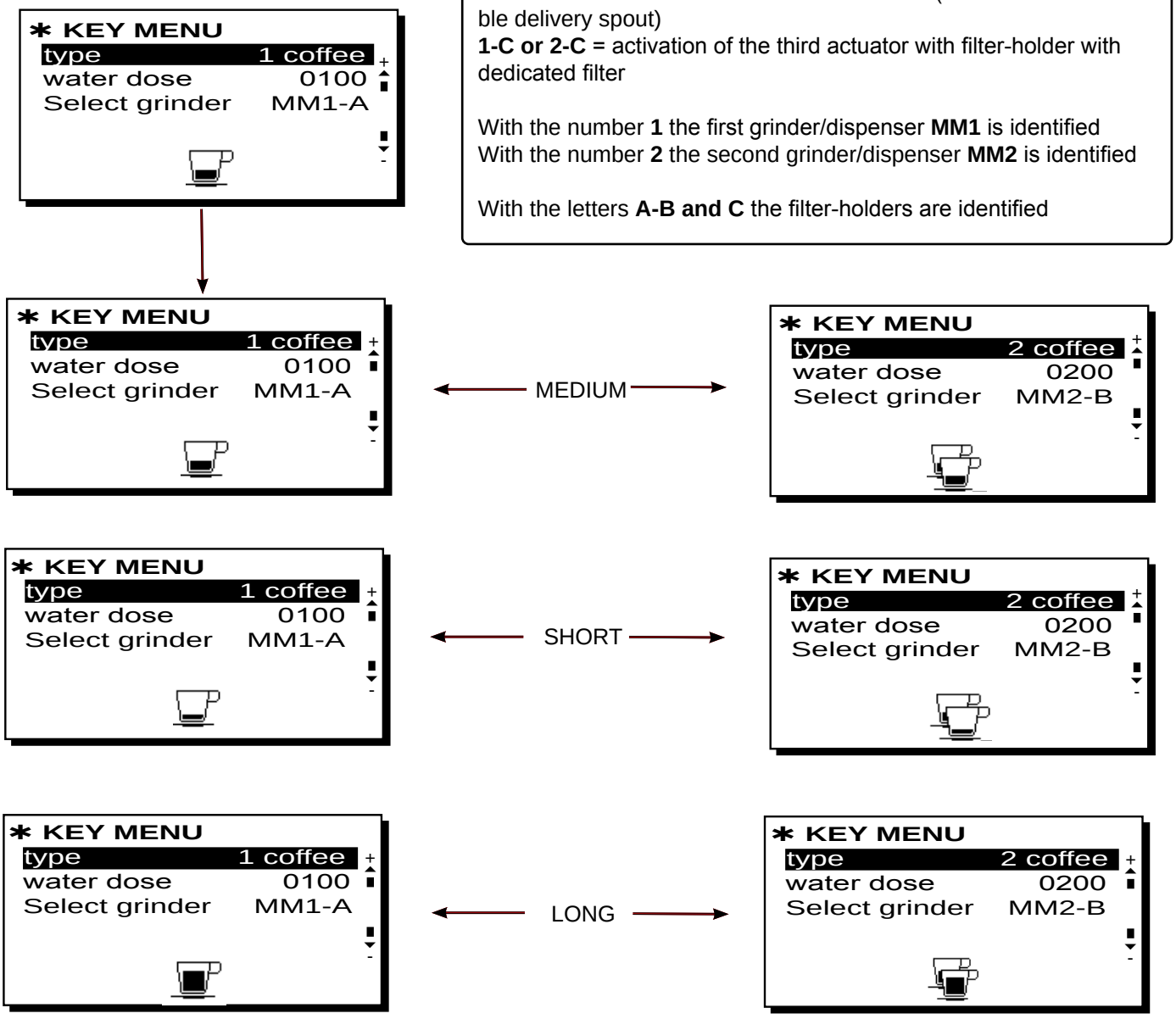
- NOTE: ALSO POSSIBILE TO CONNECT WITH GRINDER/DISPENSER 2

The filter holder-key and machine association logic is the following:
1-A or 2-A = activation of the first actuator
(filter-holder with single delivery spout)
1-B o 2-B = activation of the second actuator (filter-holder with double delivery spout)
1-C or 2-C = activation of the third actuator with filter-holder with dedicated filter

With the number **1** the first grinder/dispenser **MM1** is identified
With the number **2** the second grinder/dispenser **MM2** is identified

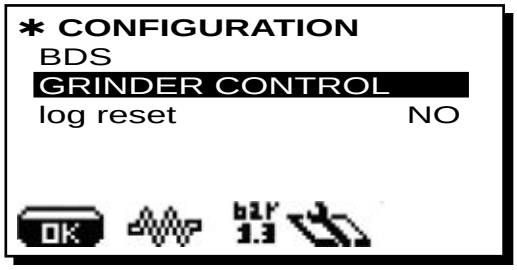
With the letters **A-B and C** the filter-holders are identified

GRINDER/DISPENSER 1



Grinder control parameters configuration

1 Position the cursor on the item "*GRINDER CONTROL*." in the machine's configuration menu and press the ▶ key.



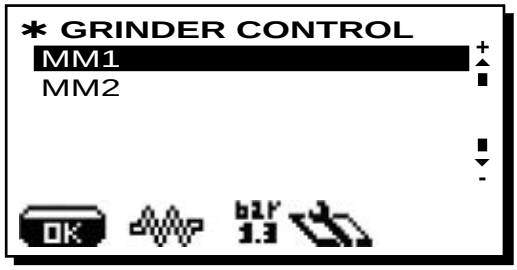
Grinder Control-1
Grinder Control-2

The parameters that can be set are:

- Enabled

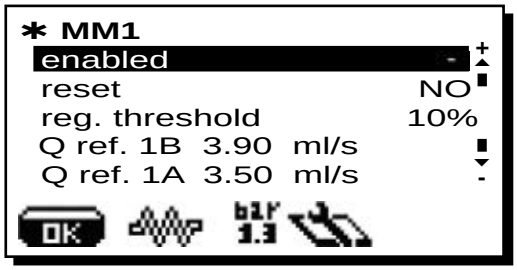
- : not in use.
- ✓ : manual grinder control (for grinder/dispensers with no Bluetooth connection option).
- ✱ : automatic grinder control (Bluetooth connection with grinder/dispenser).

2



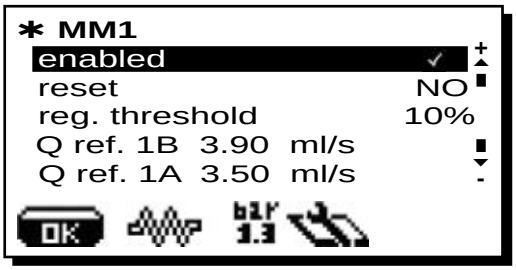
Position the cursor on the item "*MM1*" of the machine and press the ▶ key.

3



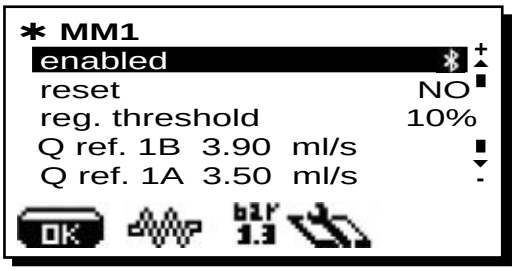
- : not in use

4



✓ : manual grinder control (for grinder/dispensers with no Bluetooth connection option).

5

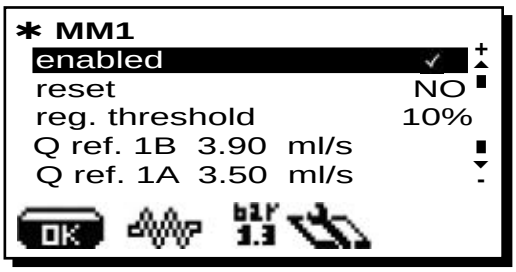


✱ : automatic grinder control (Bluetooth connection with grinder/dispenser).

The parameters can be manually changed using the ▲ and ▼ keys.
After completing operations, confirm the values by pushing the ***OK*** key or exit and leave the previous data using the ◀ key.

Grinder control parameters configuration

☑: manual grinder control (for grinder/dispensers with no Bluetooth connection option.



1. disable grinder control, if in use.
2. set and calibrate the machine and grinder/dispenser as desired.
3. dispense into the test square all the types of beverages to be used (double coffee, single coffee and any special blend - third key).
4. write down the satisfactory flow values of the coffees for each of the possible three types of beverage.
5. go to the grinder control panel and perform reset.
6. set the flow values for each of the beverages.
7. enable grinder control.

Note: Set the Q.ref of double coffees first for proper functioning of grinder control.

When this animated icon appears, it is necessary to adjust the grinder/dispenser to tighten or loosen the grinder in order to return the coffee dispensing to the default parameters.

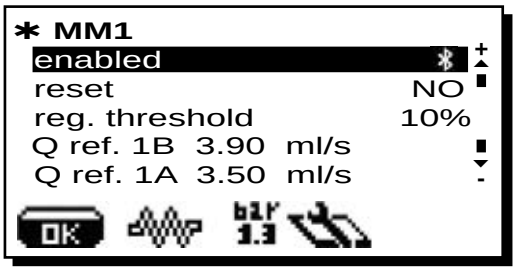
 The icons that are shown are:
means that the grinder needs to be loosened.
(flow of coffee is lower than the reference).

 means that the grinder needs to be tightened.
(flow of coffee is greater than the reference).

Note. The number next to the icon (1 or 2) indicates the grinder/dispenser that must be adjusted.
The icon appears on the display instead of the level symbol.

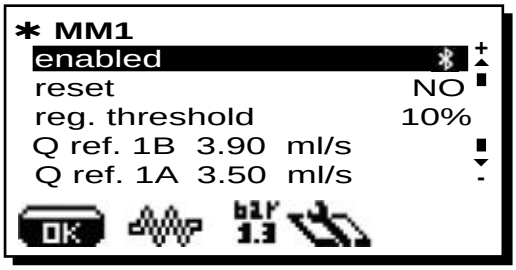
English

: Method 1: manual setting of Qref.



1. disable grinder control, if in use.
2. connect the machine to the grinder/dispenser via Bluetooth and enable dialogue in the manner already in use.
3. set and calibrate the machine and grinder/dispenser as desired.
4. dispense into the test square all the types of beverages to be used (double coffee, single coffee and any special blend - third key).
5. write down the satisfactory flow values of the coffees for each of the possible three types of beverage.
6. go to the grinder control panel and perform reset.
7. set the flow values for each of the beverages.
8. enable grinder control.

: Method 2: setting of Qref in fully self-learning mode.



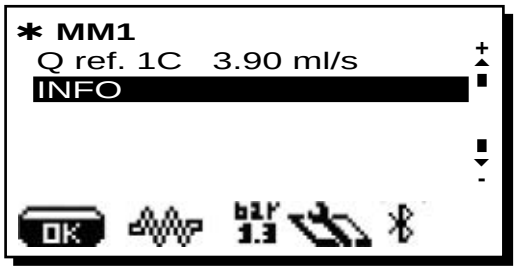
1. Disable grinder control, if in use.
2. Connect the machine to the grinder/dispenser via Bluetooth and enable dialogue in the manner already in use.
3. Programme and calibrate the machine and grinder/dispenser as desired, dispensing the beverages until a satisfactory cup result is achieved.
4. Go to the grinder control panel and perform reset.
5. Enable grinder control.
6. Exit programming.
7. Dispense double coffees (5 or more) until the message Qref OK appears on the services display (with audible sound).
8. Dispense single coffees (5 or more) until the message Qref OK appears on the services display (with audible signal).
9. Dispense any special blend coffees (5 or more) until the message Qref OK appears on the services display (with audible sound).
10. Enter programming and check that the Qref values set are present.

Repeat the entire procedure for the second grinder/dispenser if present.
The machine is ready to work with the grinder control on. In the event of problems, dispensing can be performed in the test square with the grinder control in use to see if the symbol * is present beside the flow. Remember that dispensing is deemed valid only if it lasts more than 10 seconds.

Other symbols are used in the test square:
> if the flow is too high compared to the reference, above the upper limit
< if the flow is too low compared to the reference, below the lower limit
* flow within the acceptable range
- dispensing too short (at least 8 s but less than 10 s)
(3) number of remaining coffees to be dispensed and deducted from the count

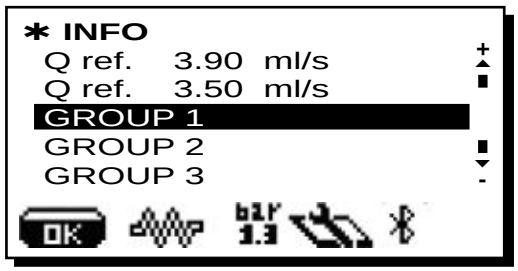
INFO : grinder control.

1



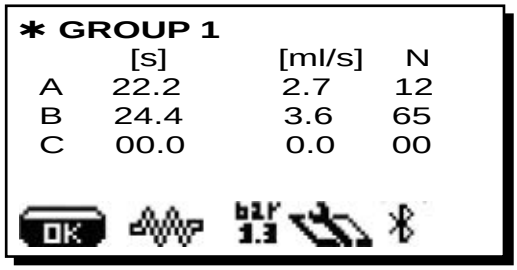
Position the cursor on the item "*INFO*" and press the ▶ key.

2



Pressing the ▶ key at the line "GROUP 1"displays:

3



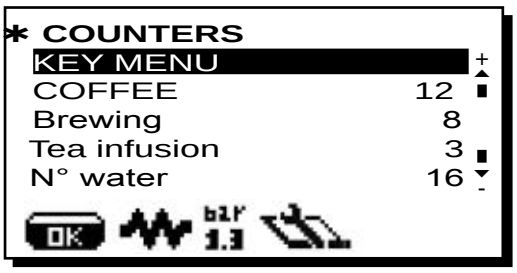
Example of information on the flows of each single dispensing sent to the Plat-One platform via WIFI. (A/B) GR 1 single coffee and one double, (C) the filter holder is not used for special coffees.

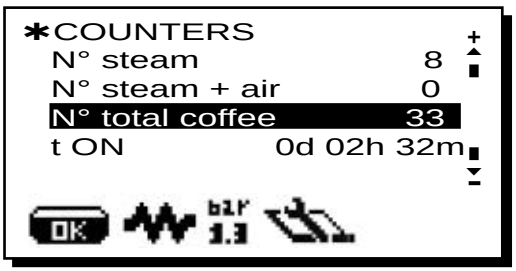
2.8 DATA MENU

COUNTERS

To access the programming menu, press the ▶ key; the message below will appear on the display:

Positioning the cursor on the line "COUNTERS" and pressing the ▲ and ▼ keys, and then pressing the ▶ key, the following is displayed:





The listed parameters are:

- ***coffee*** (number of coffee-based beverages);
- ***brewing*** (number of times that coffee was dispensed in "brewing" mode);
- ***tea infusion*** (number of times that tea was dispensed);
- ***water*** (number of times that water was dispensed);
- ***steam*** (number of times that steam was dispensed);
- ***steam + air*** (number of Turbosteam dispensings).
- ***total coffee*** (total number of coffee-based beverages).
- ***total operating time*** (period with machine ON).

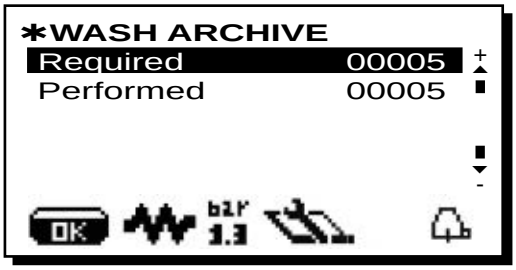
The counters can be reset by positioning the cursor over the specific item, pressing the ▶ key and then the ▲ or ▼ keys; press "**OK**" to confirm the reset.

Note: the parameters that cannot be cleared are:
- ***tot. coffee***

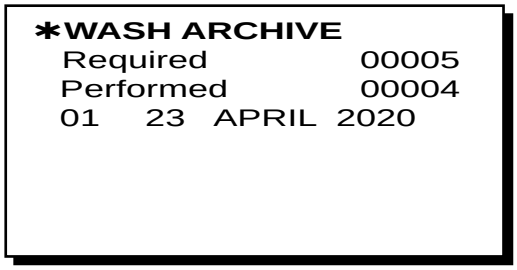
Pressing the ◀ key again will take you back to the main panel.

WASH ARCHIVE

Pressing the ▶ key at the line "Wash archive", shows the display:



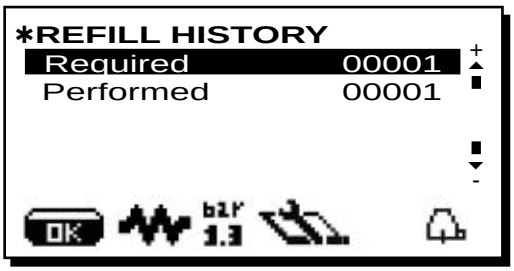
The wash settings that can be displayed are:
- **Requested**: indicates the number of washes that were requested by the machine.
- **Performed**: indicates the number of washes that were performed within the timeout of 60 minutes.



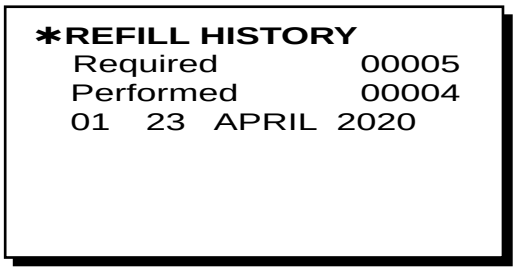
Note: if the requested washes are not performed before the timeout, the list with the last 10 missed washes, numbered and dated, can be viewed under "Performed".
The first line refers to the most recent data. Scroll down the list of any missed washes using the ▲ and ▼ keys and then press the ◀ key to go to another menu.

REFILL HISTORY

When you press the ▶ key at the line "Refill Archive", the display shows:



The Refill parameters that can be displayed are:
- **Requested**: indicates the number of Refills that were requested by the machine.
- **Performed**: indicates the number of Refills that were performed within the 60' timeout period.

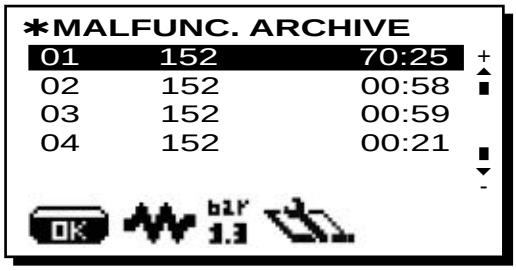


NOTE: if the requested Refills are not performed before the timeout, the list with the last 10 missed Refills, numbered and dated, can be viewed under "Performed".
The first line refers to the most recent data.

Scroll down the list of any missed Refills using the ▲ and ▼ keys, then press the ◀ key to go to another menu.

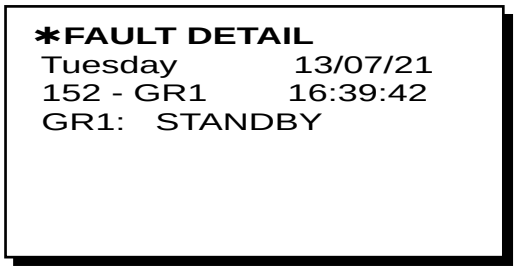
MALFUNCT. ARCHIVE

When the user presses the ▶ key on the “Malfunctions Archive” line, the display shows:



The digits after the "malfunction code" indicate the time elapsed since the last recorded malfunction, in hours and minutes.

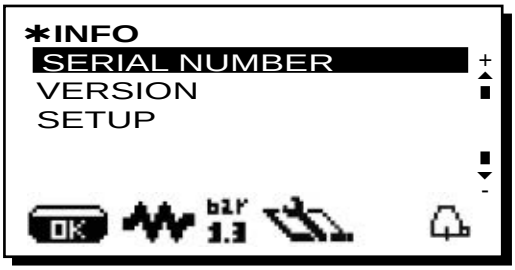
Pressing the ▶ key is again takes you to a detailed display that shows:
- day and time when the fault occurred
- condition of each group at the time of the malfunction.



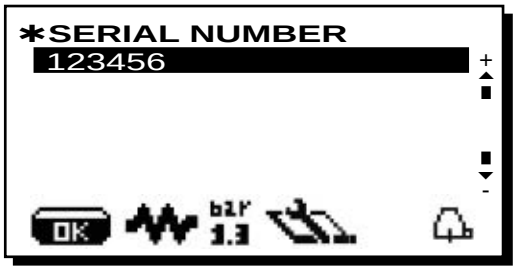
English

INFO

By positioning the cursor on the “INFO” line, pressing the ▲ and ▼ keys, and then pressing the ▶ key, the following is displayed:

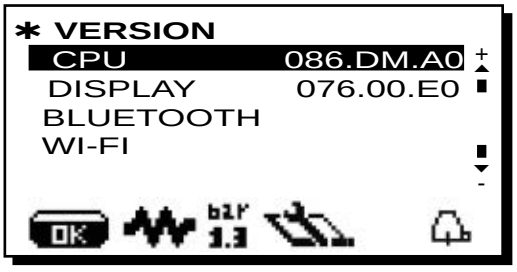


When you press the ▶ key at the line "serial number", the display shows:

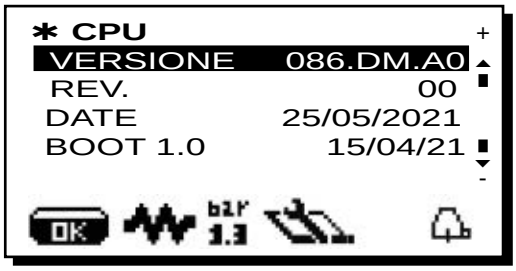


Version

The submenus under "Version" show the memory versions:
- CPU;
- Display;
- WIFI;
- Bluetooth;

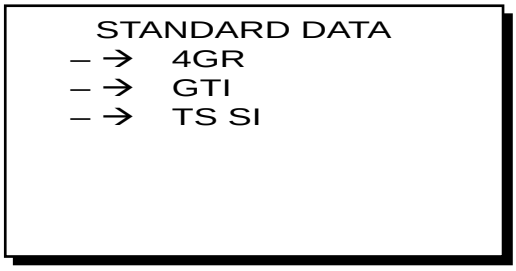


By pressing the ▶ key on the lines, for some parameters, data on the revision and the date of the memory is displayed in addition to the version.



Setup

The settings entered during the Standard Data entry step are displayed under "Setup":



2.9 MANUAL COMMANDS MENU

To access the manual control panels, position the cursor on the “Manual Commands” line using the ▲ and ▼ keys

MANUAL COMMANDS - allows the components to be activated manually using the ▲ and ▼ keys

When the ▶ key is pressed again, the box below appears on the display:

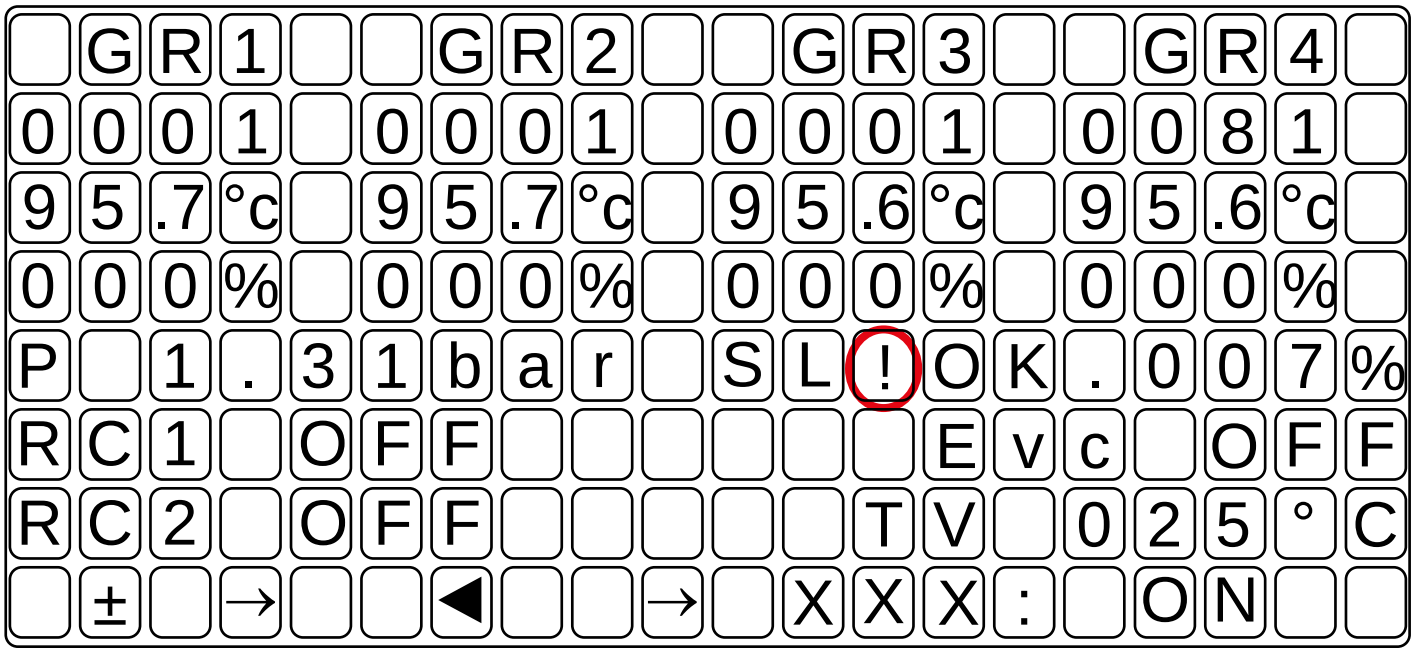
Manual panel 1

	G	R	1			G	R	2			G	R	3			G	R	4	
0	0	0	1		0	0	0	1		0	0	0	1		0	0	8	1	
9	5	.7	°c		9	5	.7	°c		9	5	.6	°c		9	5	.6	°c	
0	0	0	%		0	0	0	%		0	0	0	%		0	0	0	%	
P		1	.	3	1	b	a	r		S	L	!	O	K	.	0	0	7	%
R	C	1		O	F	F							E	v	c		O	F	F
R	C	2		O	F	F							T	V		0	2	5	°	C
	±		→			▶			→		X	X	X	:					

- Pressing ▲ or ▼ displays the various components;
- Pressing ▶ selects the component to active and takes you to the next panel M2;
- Pressing ◀ exits manual mode.

! Optional symbol: if visible, this indicates the presence of anomalies on the level probe signal.

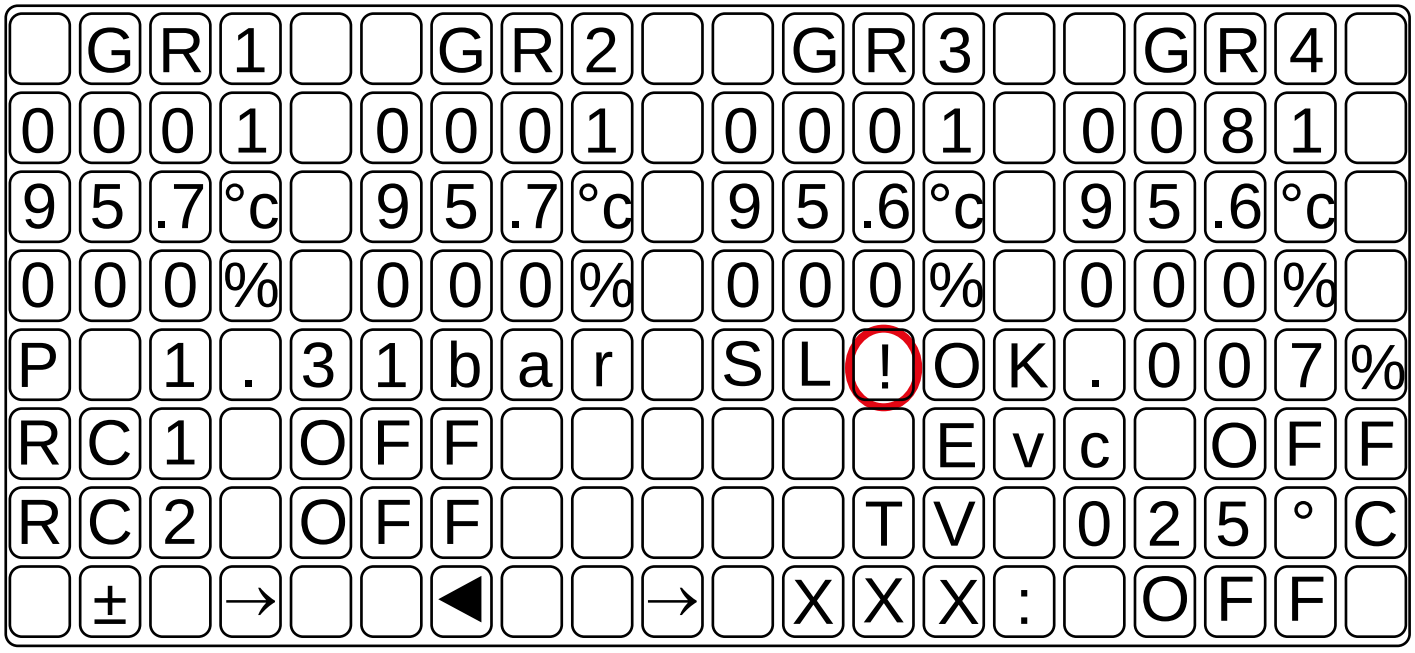
Manual panel 2



English

- Pressing ▲ or ▼ activates the components:
if they have a direction, use ▲ and ▼ to alternate ("+" Left/"-" Right).
- Pressing ◀ takes the user back to panel M1.

Manual Panel



Level signal:
-Nominal operating range: from 7 to 53% (approximately) (E.g. 8% level OK; 50% no water, level probe uncovered)
-Other values -> signal anomaly, check wiring and connections

Key

RC Boiler heating element
Evc Charge-boiler solenoid valve
P Boiler Pressure
SL Boiler water level
TV: Steam temperature (this parameter is not shown if the Turbosteam system is **not** present)

Below are the symbols used to define the components that can be accessed for movement:

MP	pump motor
G1~G4	Dispense-coffee solenoid valve
Eac	Hot water solenoid valve
Eaf	Cold-water solenoid valve
Ev	Steam solenoid valve
Evc	Charge-boiler solenoid valve
Ets	Turbosteam solenoid valve*****
MC	Turbosteam motor compressor *****
Em	Milk solenoid valve *
Ein1–Ein4	Infusion solenoid valve *
Eds	Drying solenoid valve*****
Em-Erp	Milk solenoid valve/ Pressure reset solenoid valve*****
Gp1–Gp4	Proportional solenoid valve*****
Ets2	Turbosteam solenoid valve (left)*****
MC2	Turbosteam motor compressor (left)*****
Ed	Diverter solenoid valve*****
Elf1	Water solenoid valve for milk reconstitution*****
Edm	Milk diverter solenoid valve*****
Edar	Air diverter solenoid valve*****
Esm	Milk safety solenoid valve*****
Etm	Turbomilk solenoid valve*****
Elf	Washing solenoid valve*****
Mpl	Milk pump motor*****

The components - * - are only applied with certain product configurations.

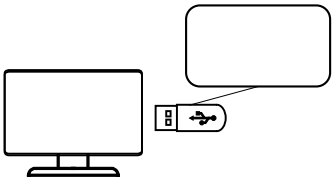
English

PRELIMINARY INFORMATION

Do not turn off the machine or remove the USB Pendrive until the update is complete.

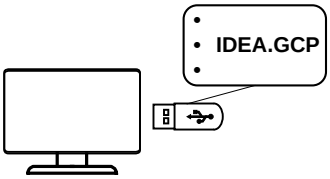
It is preferable to use a USB Pendrive with an LED that indicates status.

1



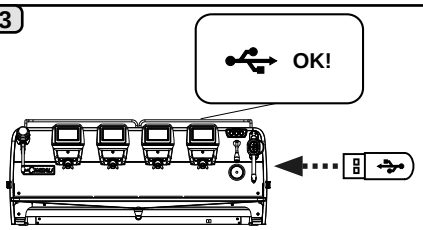
Format the USB Pendrive (e.g. Windows FAT32).

2



Unzip the firmware folder and copy all the files inside to the main path on the USB Pendrive.

3

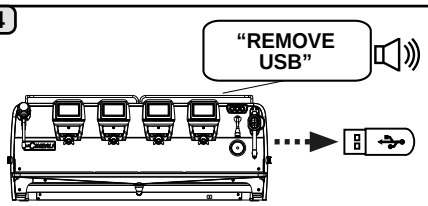


After dismantling the side panel (as indicated in the “DISMANTLING” section)

with machine on

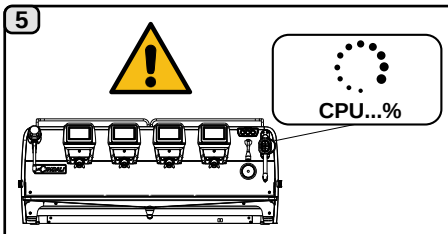
insert the USB pendrive in the correct port on the machine’s CPU BOARD and wait for it to be read.

4



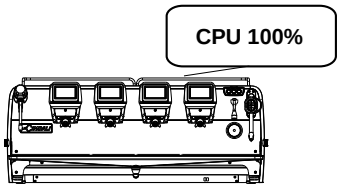
Wait for the files to be copied to the machine.
When the copying process is finished, intermittent beeps will sound.
Remove the USB pendrive from the CPU BOARD.

5



The CPU update process continues after the USB pendriveis removed from the CPU BOARD.

6

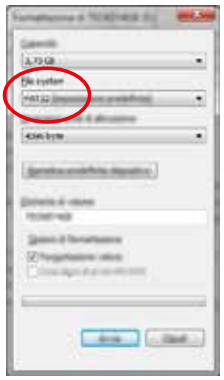


CPU update complete.
The machine restarts automatically.

Display calibration (touchscreen only)

1

Take an empty USB pen drive.



Format a USB drive using the **FAT32** format. If using Windows, use the predefined formatting settings as shown in the image.

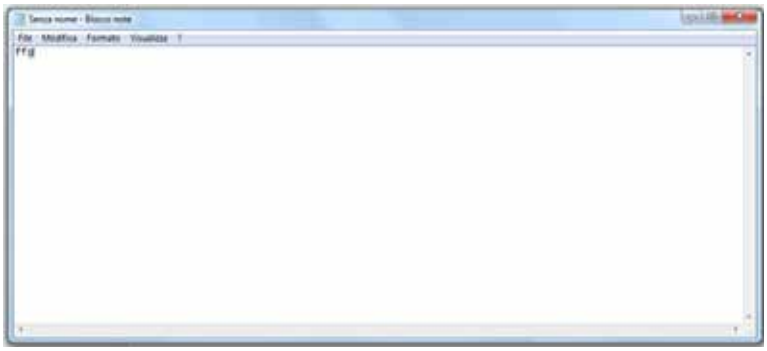
Create a folder named **GC**. In this folder, create a text file with generic content (e.g., “calib”) and save it as TFTCalib.cim

English

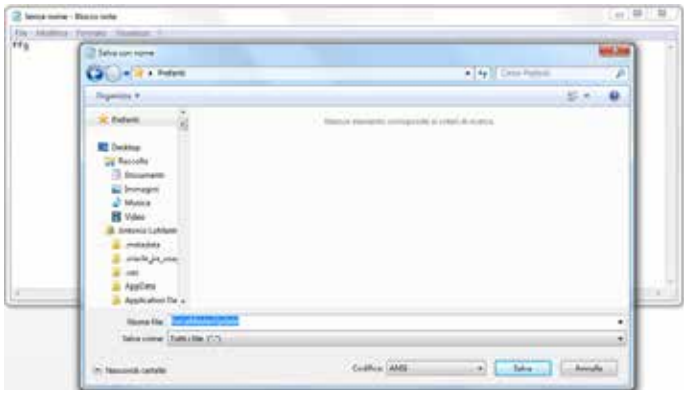
2

Click the Windows symbol in the lower left part on your PC screen. The following menu will open. Select Notepad (in RED in the figure)

Press any character, number or letter you choose (one is enough)

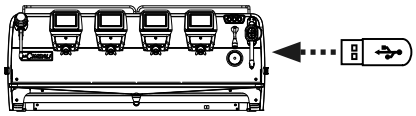


Save the file and name it **TFTCalib.cim** in the **GC** folder (be careful with UPPERCASE and LOWER-CASE letters)



Copy the file created onto a USB drive (previously formatted).

3



After removing the side panel (as indicated in the "DISASSEMBLY" section), insert the USB pen drive into the dedicated port on the machine board:

Main screen

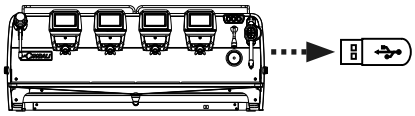
English

4

The following message will appear on the display:

Using a pen hold down the centre of the cross; repeat the operation in all the points where the cross appears.

When finished, remove the USB key to return to the main screen.

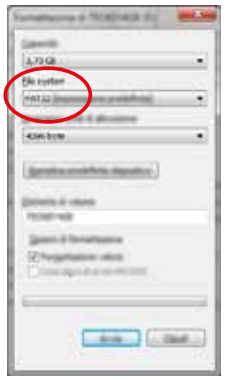


Main screen

English

1

Take an empty USB pen drive.



Format a USB drive using the **FAT32** format. If using Windows, use the predefined formatting settings as shown in the image.

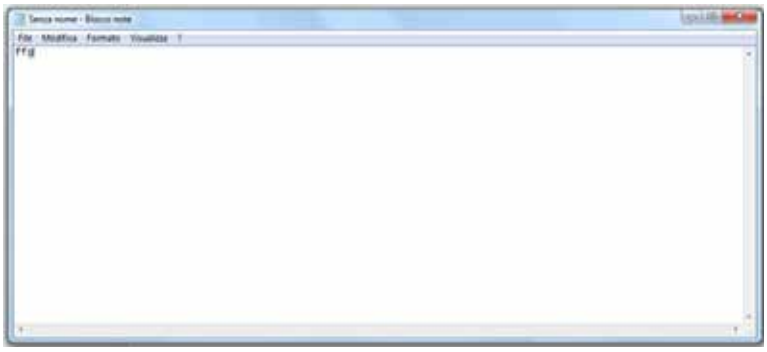
Create a folder named **GC**. In this folder, create a text file with generic content (e.g., “test”) and save it as TFTTest.cim

English

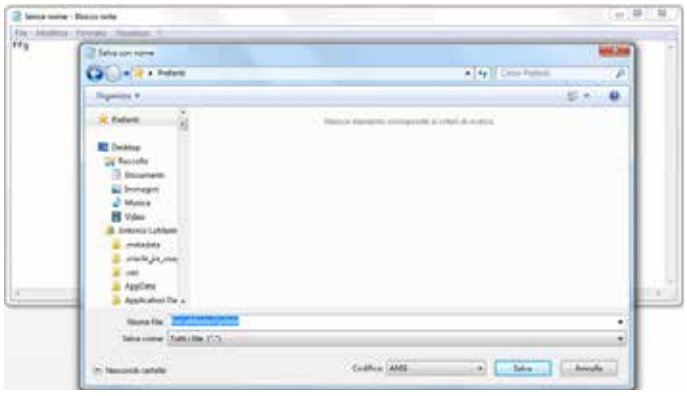
2

Click the Windows symbol in the lower left part on your PC screen. The following menu will open. Select Notepad (in RED in the figure)

Press any character, number or letter you choose (one is enough)

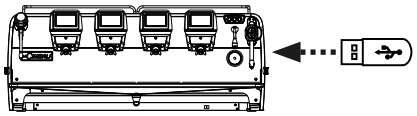


Save the file and name it **TFTTest.cim** in the **GC** folder (be careful with UPPERCASE and LOWER-CASE letters)



Copy the file created onto a USB drive (previously formatted).

3



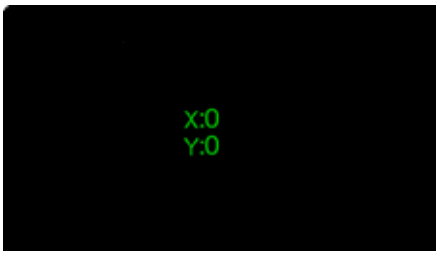
After removing the side panel (as indicated in the "DISASSEMBLY" section), insert the USB pen drive into the dedicated port on the machine board:

Main screen

English

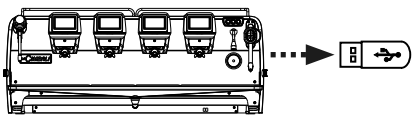
4

Ensure that the information on the display is green, with no pressure on the screen;



if the information is red, check for any wanted pressure on the edge of the screen.

When finished, remove the USB key to return to the main screen.



Main screen

3. DIAGNOSTICS MESSAGES

English

FAULT CODE	DESCRIPTION	POSSIBLE CAUSES	ACTIONS
020	**USB power-supply malfunction**	• USB-port current-consumption too high	•Check the status of the USB port and its connections in order to identify possible causes of excessive consumption (e.g., short-circuit). •Once the cause of the malfunction is fixed the USB port should restore itself automatically and return to normal operation. •If the problem persists, replace the CPU board.
(x)21*	**Group x boiler pressure sensor out of range (x = 1, 2, 3, 4)** Note: group 1 is the one at the far left.	• Sensor faulty • Board failure.	•Check wiring •Replace the sensor •Replace the board.
023	**AC 24 V power supply malfunction.**	•The glass fuse on the CPU board is likely broken.	• Replace the fuse.
024	**Clock malfunction**	• Contacts oxidised. • Dead battery. • Clock locked.	• Clean the contacts on the battery. • Measure the voltage of the battery (3 V DC) and, if necessary, replace it. If the battery is OK try, with the machine turned off, to remove it from the board and wait 2-3 minutes. Then reinsert the battery and check that the clock is working properly.
025*	**Power failure: group, EV, milk pump**	• Voltage drop on the power network	•Make sure that voltage is reaching the CPU board •Check power supply (protection) •Check wiring
029*	**LCD display not connected**	• Break in wiring. • Display fault.	•Check wiring
030	**Slave micro processor malfunction**		•If the problem persists, replace the Idea board.
041*	**Milk pump motor overcurrent**	• Consequence of applied force • Rotor blocked • Pump motor faulty	•Check wiring. •Check whether the circuit or pump is clogged. •Replace the pump.
051	**Boiler temperature sensor out of range**	• Sensor faulty • Board failure.	•Check wiring •Replace the sensor •Replace the board.
(x)51*	**Group x boiler temperature sensor out of range (x = 1, 2, 3, 4)** Note: group 1 is the one at the far left.	• Disconnected thermocouple • Sensor faulty	•Check wiring •Replace the sensor
052	**Time-out boiler heating - 45 MINUTES**	• The safety thermostat has tripped • Heating element faulty (wiring defect) • Triac board fault	•Check if the safety thermostat has tripped and, if it has, reset it. •Check whether there are interruptions or detached faston connectors in the wiring. •Check that the boiler heating element is not interrupted and if so replace it. •Replace Triac board

English

FAULT CODE	DESCRIPTION	POSSIBLE CAUSES	ACTIONS
(x)52*	**Timeout boiler heating group x - 20 minutes (x = 1, 2, 3, 4)** Note: group 1 is the one at the far left.	• The group x boiler safety thermostat has tripped • Heating element faulty (wiring defect) • Triac board fault	•Check if the group x boiler safety thermostat has tripped and, if it has, reset it. •Check whether there are interruptions or detached faston connectors in the wiring. •Check that the group x boiler heating element is not interrupted and if so replace it. •Replace Triac board
(x) 53*	**Steam thermocouple out of range.** **R > 053; L > 153**	• Disconnected thermocouple • Wrong configuration when entering Standard Data.	•Enter programming and enter the correct Standard Data of the machine. •Check the electrical connections. •Replace the steam temperature probe.
058	**Boiler over-pressure**	•Heating element continuously supplied. •Temperature sensor out of range	•Check the wiring. •Replace the sensor
059	**Time-out boiler load - 15 minutes**	• Out of water. • EV load faulty. • Break in wiring. • Board failure.	•Check that the machine is connected to the water system and that water is entering the hydraulic circuit. •Replace solenoid valve. •Check the wiring. •Replace the board.
060	**Boiler-level signal errors.**	• Electrical fault. • Leakage to earth.	• Check wiring. • Check, by activating the components individually on the manual control panel, that the level signal does not show any anomalies (%).
062	**Coffee dispensed referred to MM1 with flow under the limit (3 consecutive dispensings)**	• coffee filter blocked • coffee type changed • qref calibration wrong • grind too fine, excessive dose ground	• wash the group • clean/replace the coffee filter • use a coarser grind • calibrate the machine correctly on the basis of the coffee/recipe
063	**Coffee dispensed referred to MM1 with flow over the limit (3 consecutive dispensings)**	• coffee type changed • qref calibration wrong • grinding too coarse • grinder/dispenser locked, insufficient dose of ground coffee	• check that there are no external elements in the grinders • check that the measure grinder is working (pick-up current and fuses) • use a finer grind • calibrate the machine correctly on the basis of the coffee/recipe
064	**Coffee dispensed referred to MM2 with flow under the limit (3 consecutive dispensings)**	• coffee filter blocked • coffee type changed • qref calibration wrong • grind too fine, excessive dose ground	• wash the group • clean/replace the coffee filter • use a coarser grind • calibrate the machine correctly on the basis of the coffee/recipe

English

FAULT CODE	DESCRIPTION	POSSIBLE CAUSES	ACTIONS
065	**Coffee dispensed referred to MM2 with flow over the limit (3 consecutive dispensings)**	• coffee type changed • qref calibration wrong • grinding too coarse • grinder/dispenser locked, low dose of ground coffee	• check that there are no external elements in the grinders •check that the grinder/dispenser is working (pick-up current and fuses) • use a finer grind • calibrate the machine correctly on the basis of the coffee/recipe
(x)66	**Error in the group that is dispensing. (x = 1, 2, 3, 4)** Note: group 1 is the one at the far left.	• Hydraulic circuit clogged. • Volumetric dosing device fault.	•Check that the machine is connected to the water system and that water is entering the hydraulic circuit. •Check that the pipes are not clogged and that there are no leaks. •Check the electrical connections of the volumetric dosing device. •Replace the volumetric dosing device if broken. •Replace the board if broken.
(x)70	**Grinder/dispenser Bluetooth settings set up by the technician (x = 1, 2) MM1 > 170; MM2 > 270**		• Event only archived and not displayed on the display during normal machine operation.
082	**Temporary communication problem with the keyboards/TFT display.**		•Check the insulation. •Check wiring and connections.
083	**Service keyboard board communication error.**	• Incorrect keyboard configuration (if applicable). • Break in wiring. • Board failure.	•Check that the dip switches are correctly configured on the key board (if applicable). •Check wiring. •Replace key board
(x)83*	**Communication error group x keypad (x = 1, 2, 3, 4)** Note: group 1 is the one at the far left.	• Incorrect keyboard configuration (if applicable). • Break in wiring. • Board failure.	• Check that the dip switches are correctly configured on the key board (if applicable). •Check wiring. •Replace key board
(x)85*	**Communication error Bluetooth (x = 1, 2) MM1 > 185; MM2 > 285**	• Measure grinder turned off. • Incorrect association with measure grinder.	• Turn on the grinder/dispenser. • Repeat device pairing.
089	**NVM RAM data integrity error**	Data integrity error in non-volatile RAM memory of the CPU board.	• Turn the machine off and on again. If the error continues, replace the CPU board. Check the condition of the clock battery.
091*	**No tank during milk washing cycle**	• Removal of tank during the wash. • Tank presence sensor faulty.	• Check the correct operation of the tank presence sensor on the manual control panel. • Check the wiring.

English

FAULT CODE	DESCRIPTION	POSSIBLE CAUSES	ACTIONS
092	**Request water softener resin regeneration.**		• Softener maintenance.
093	**Request replacement water filter.**		• Replace the water softener filter.
096	**Maintenance due.**		• The machine has displayed the message to warn the user that maintenance must be performed.
097*	**Standard Password Reset**	• Action desired by the user by entering the special code (applicable only for machines with TFT display).	
098	**Log reset.**	• Initialisation malfunction history (and washing history for machines without TFT display).	• Event only archived and not displayed on the display during normal machine operation.
099	**Entering standard data for menu configuration**		

The malfunctions - * - only appear with certain product configurations.

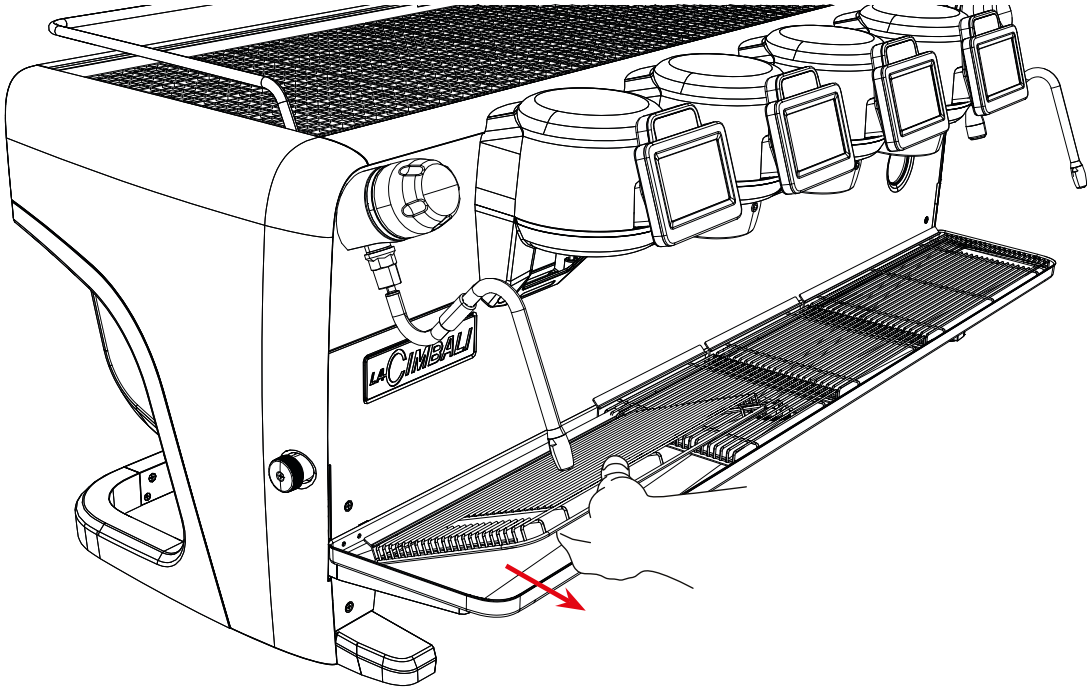
4. DISMANTLING AND ADJUSTMENTS

ALL OPERATIONS MUST BE PERFORMED WITH THE MACHINE SWITCHED OFFAND COLD.
ALWAYS USE THE NECESSARY SAFETY EQUIPMENT (SHOES/GLOVES).

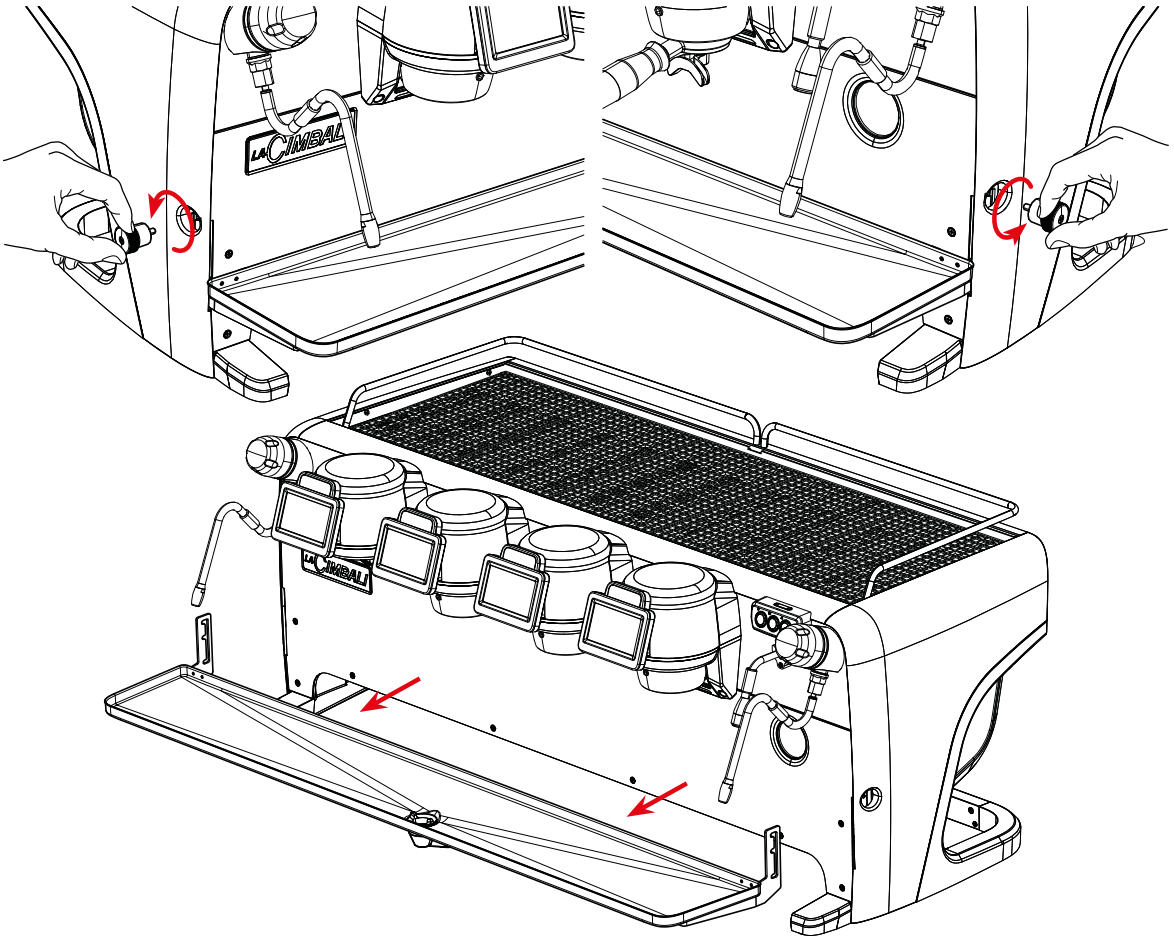
4.1 Basin

English

1

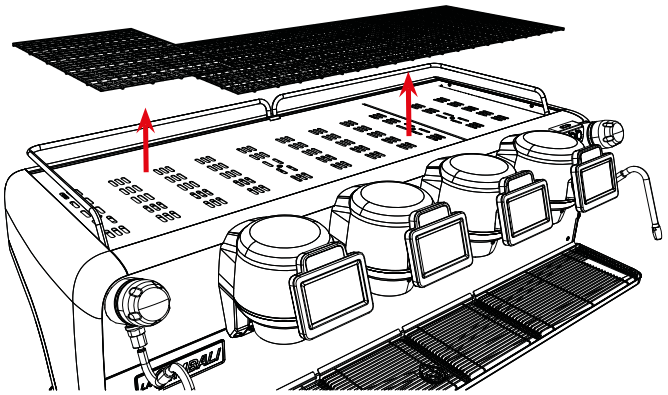


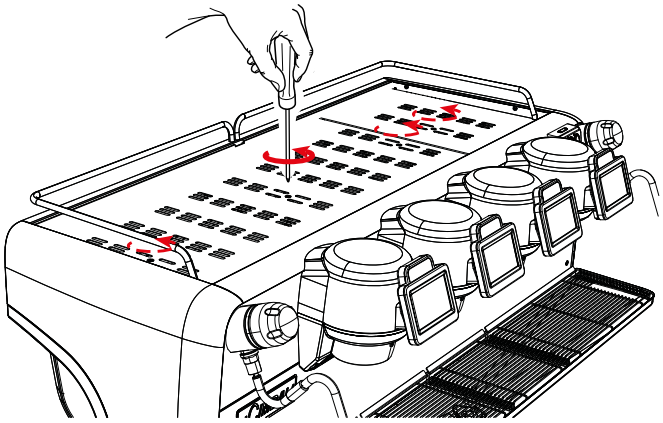
2



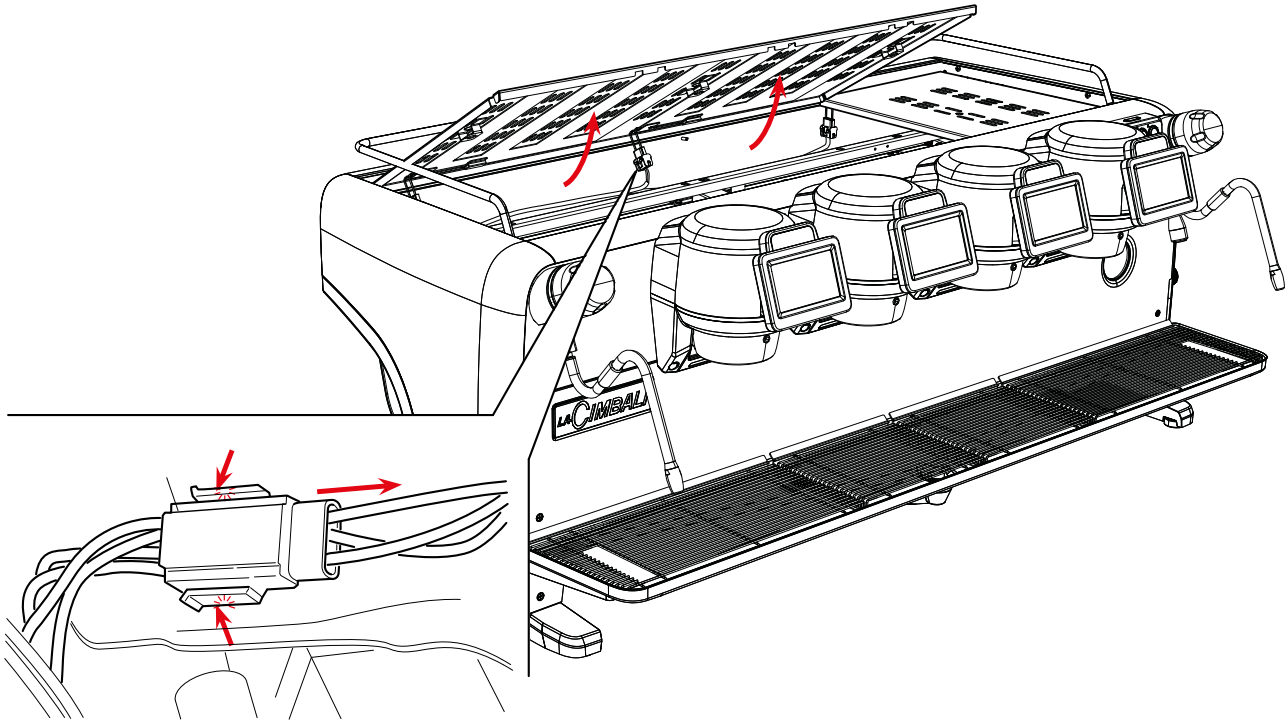
4.2 Cup warmer

1

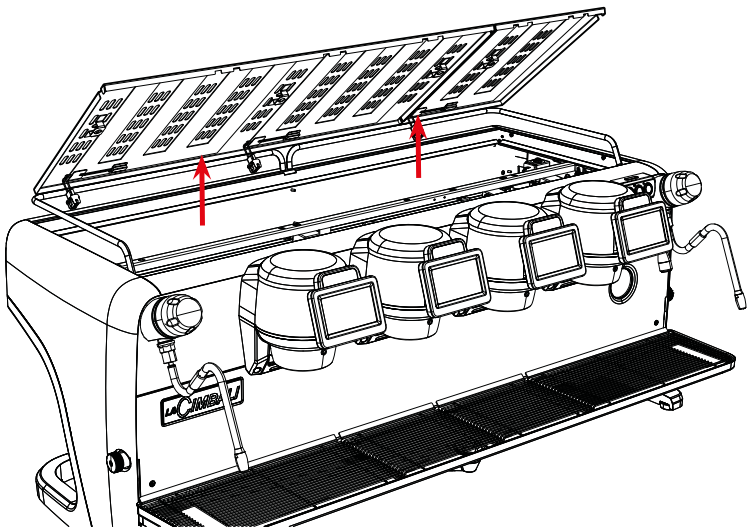




2



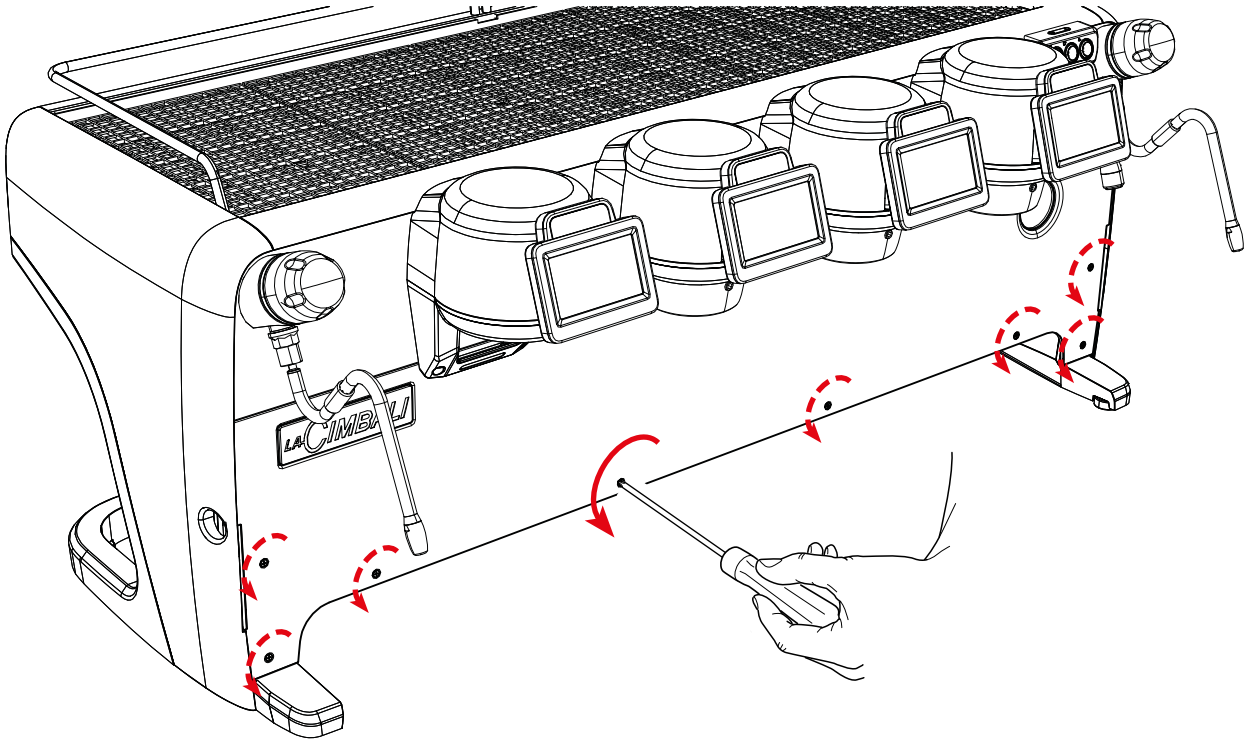
3



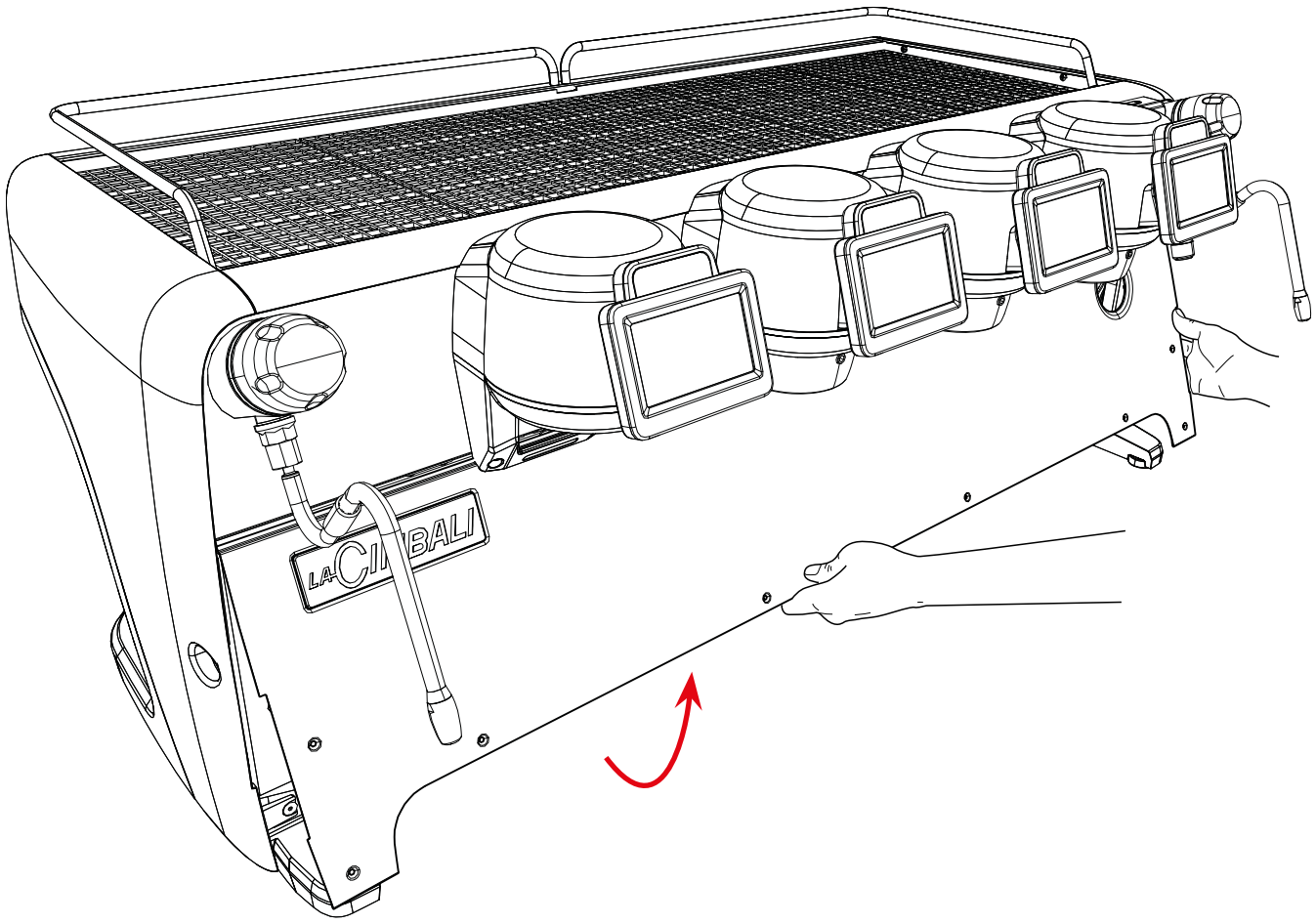
English

4.3 Stainless steel front panel

1



2



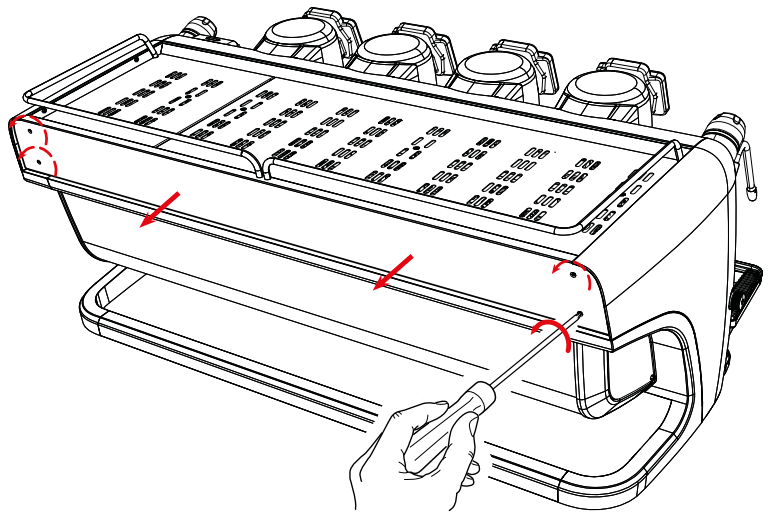
English

4.4 Rear panel

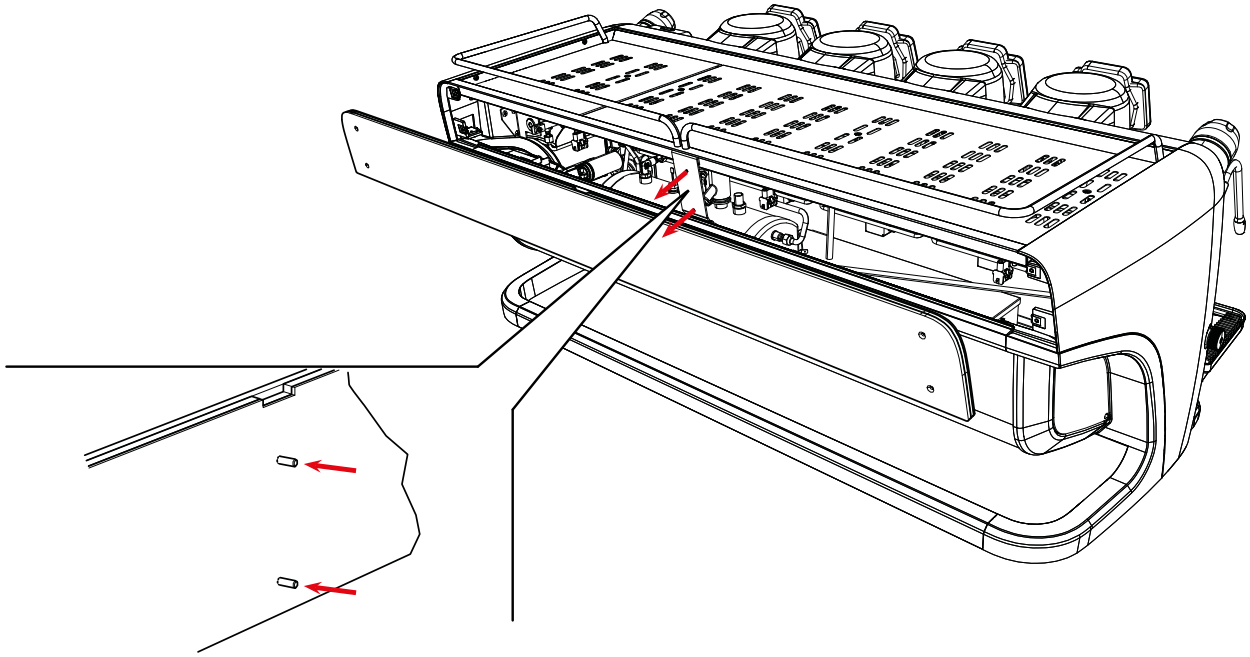
Disassembly of the rear panel must be carried out only after having removed the cup warmer.

English

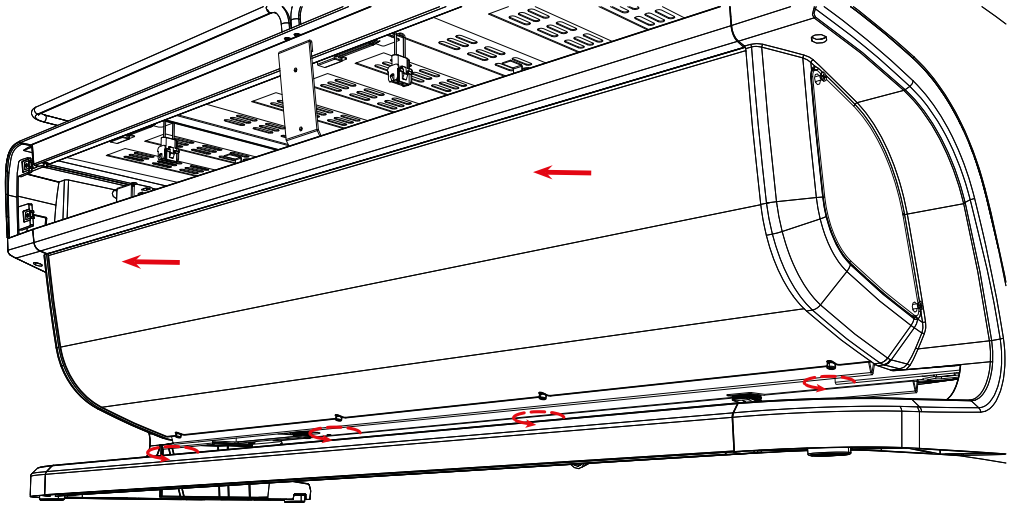
1



2



3

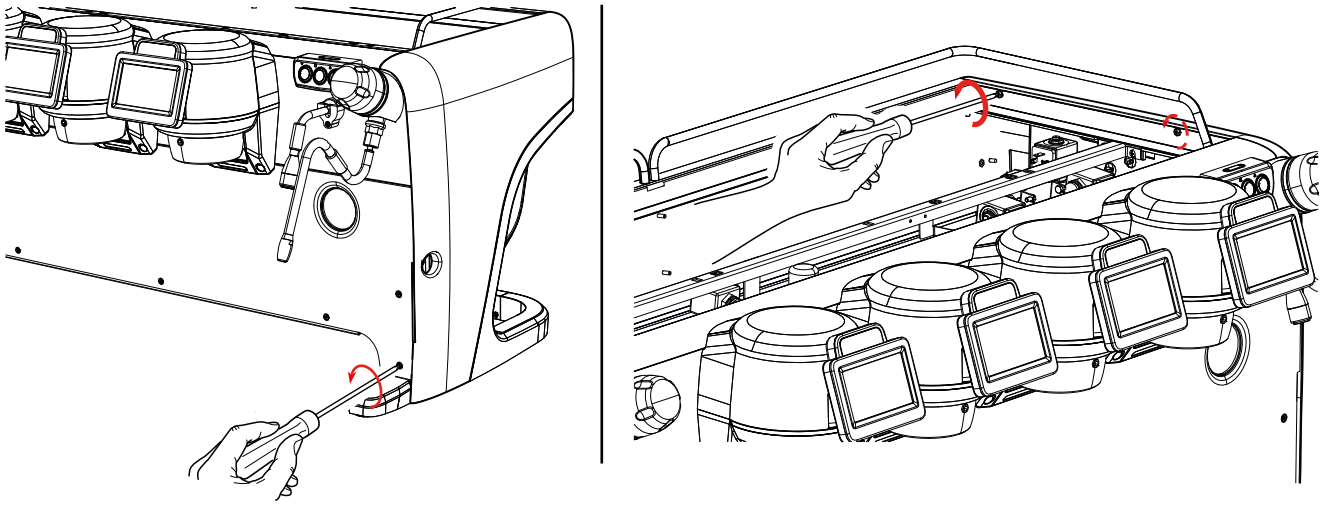


4.5 Dismantling of the panels

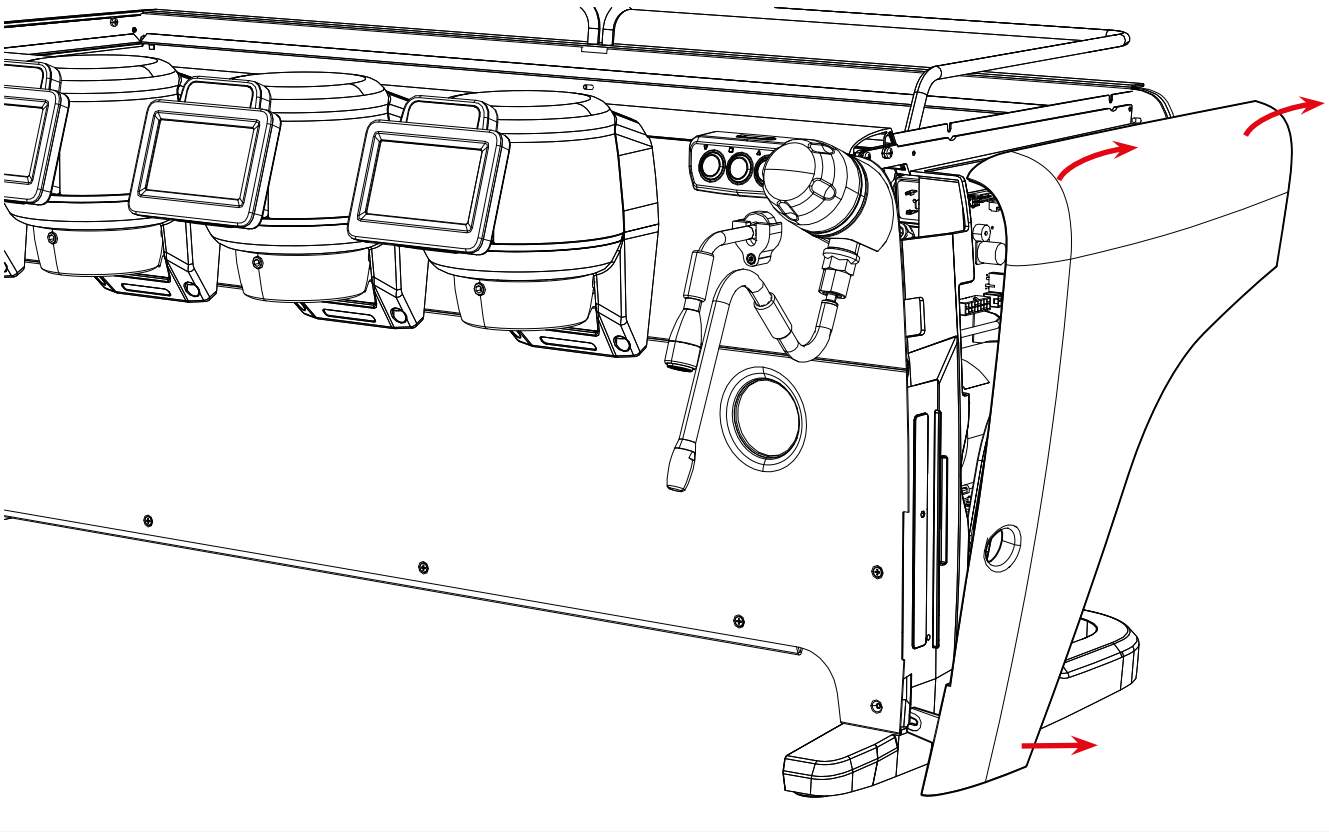
Disassembly of the panels must be carried out only after having removed the cup warmer.

FRONT PANEL

1



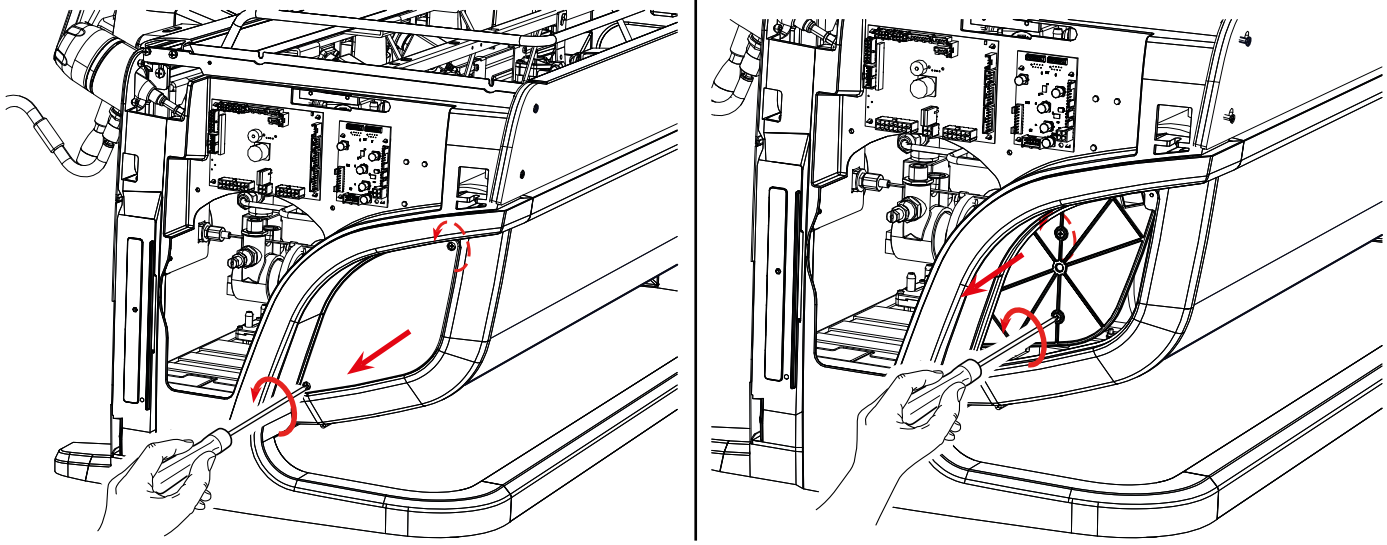
2



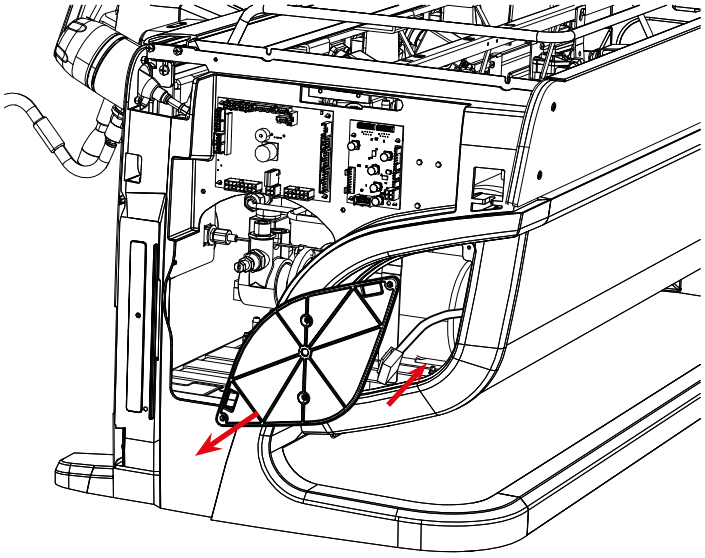
English

SIDE PANEL WITH LED

1



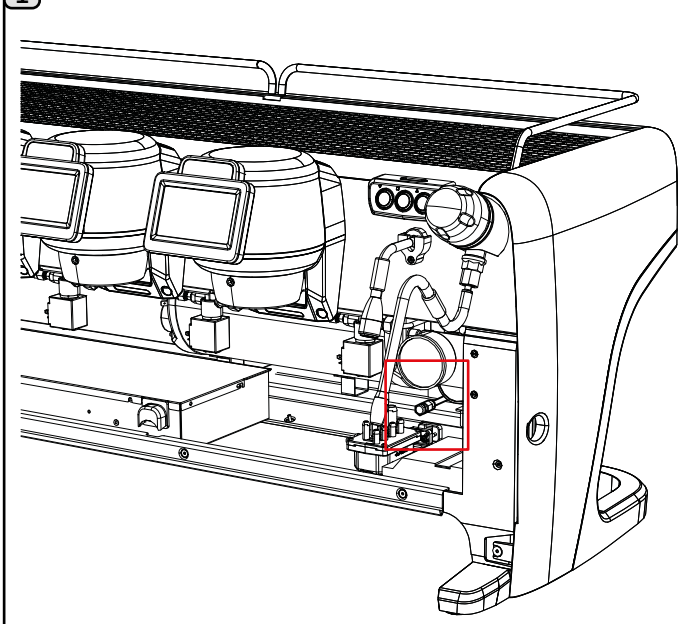
2

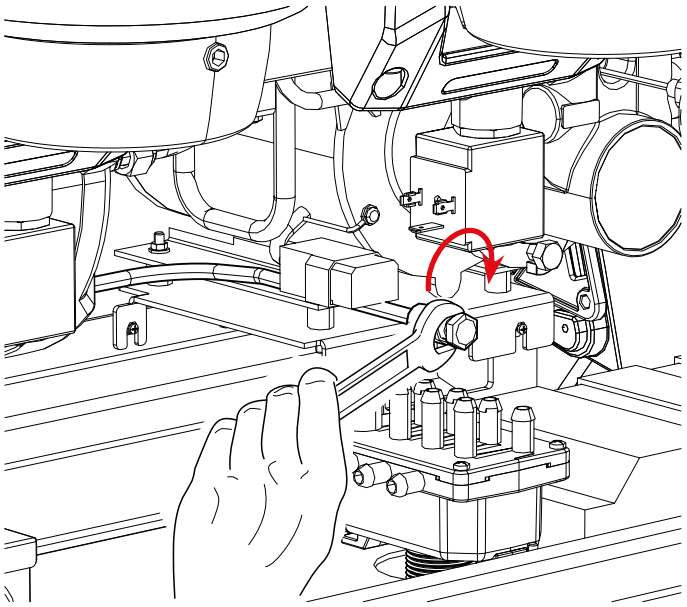


English

4.6 Draining the boiler

1



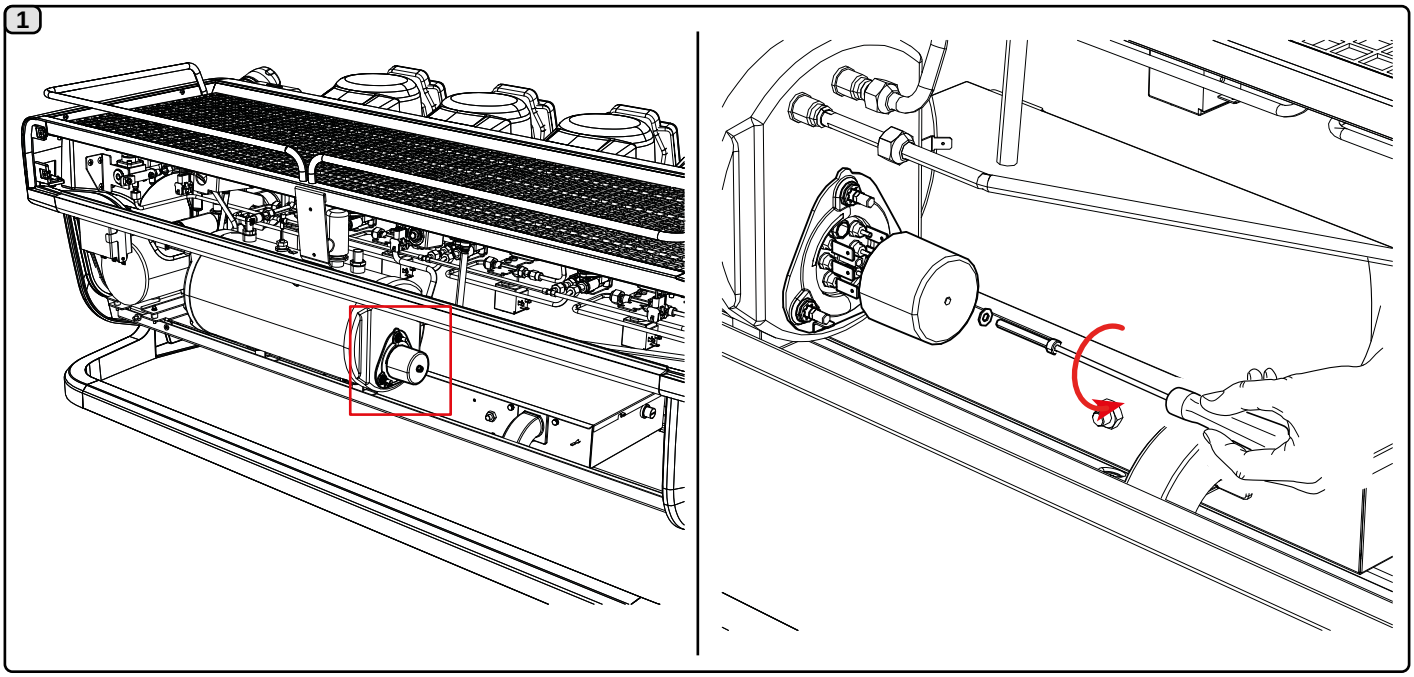


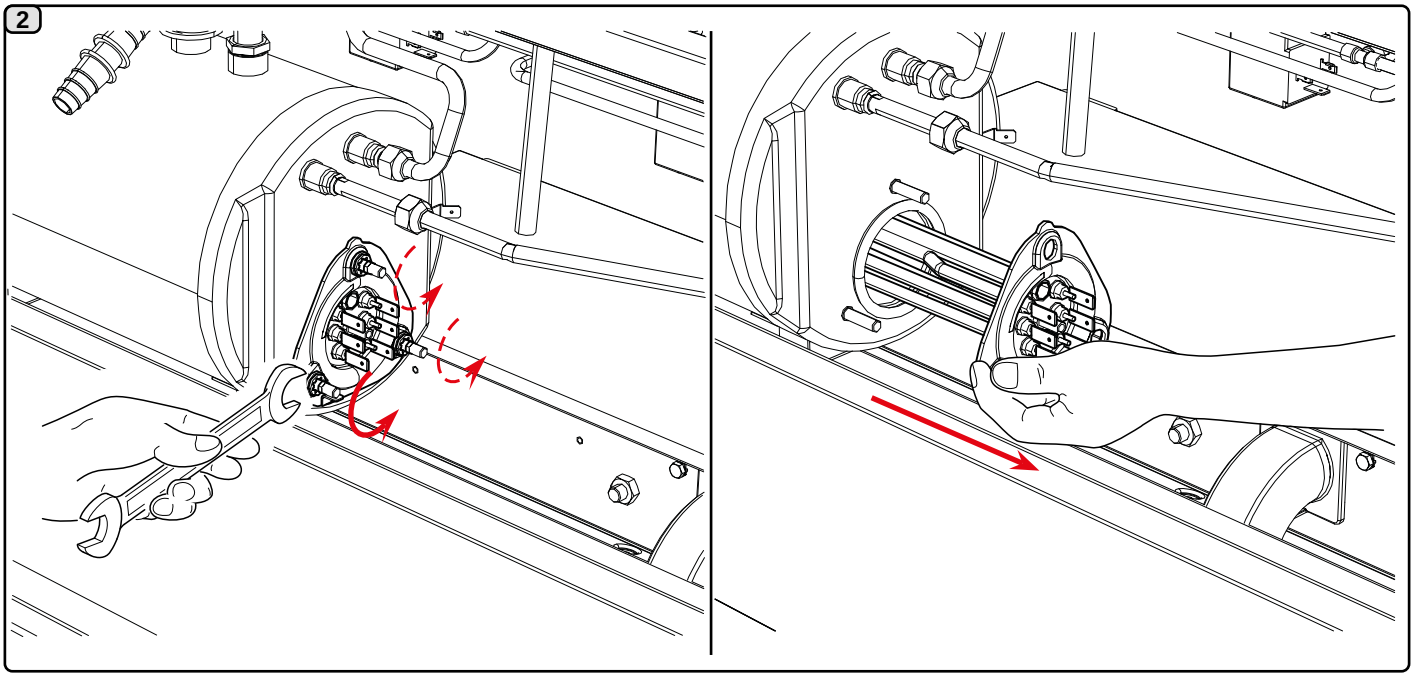
Remove the drain plug and turn the nut in the direction shown in the image

English

4.7 Removing the boiler heating element

Disassembly of the heating element must only be carried out after having emptied the boiler.

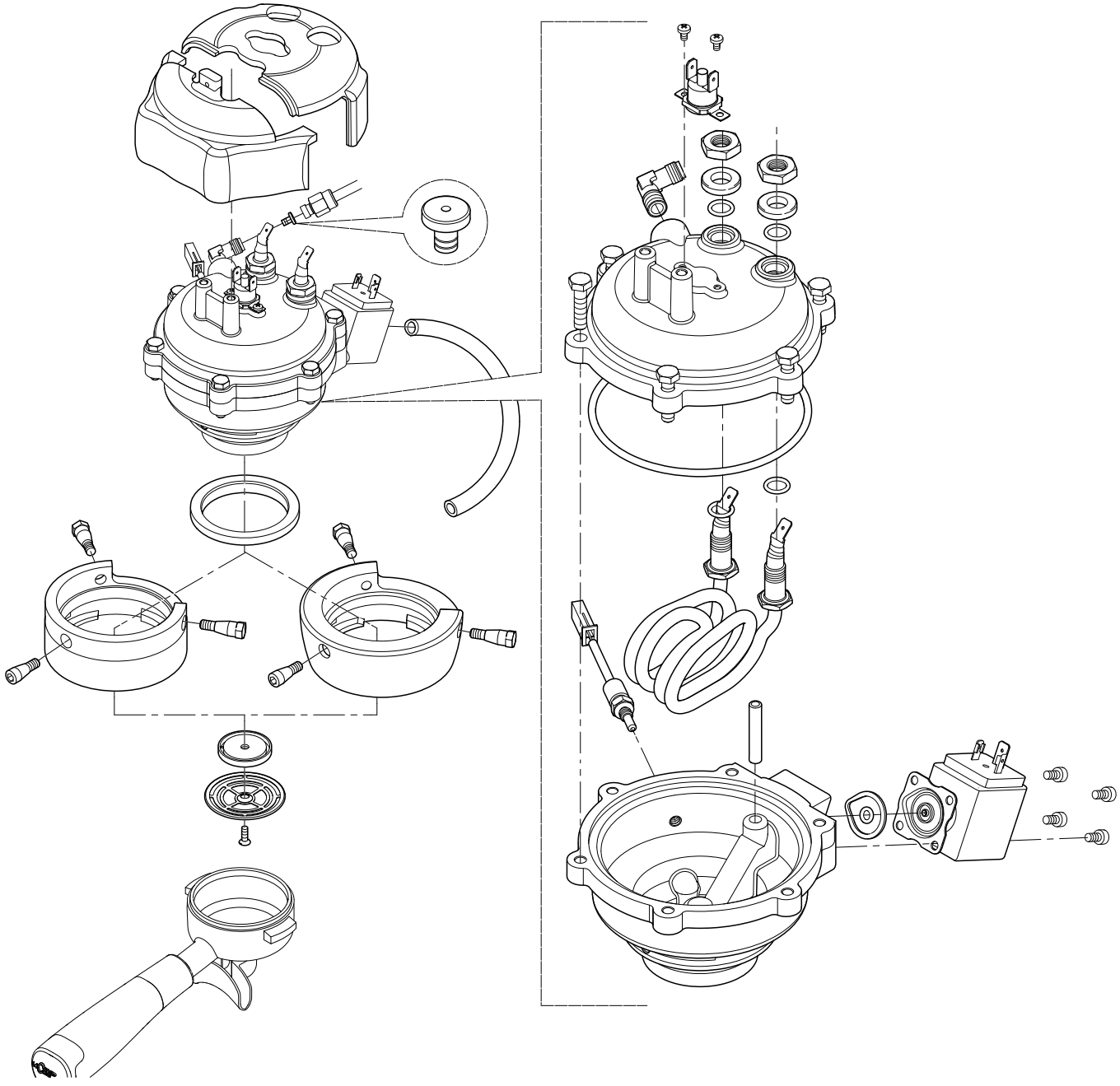




English

4.8. Coffee boiler

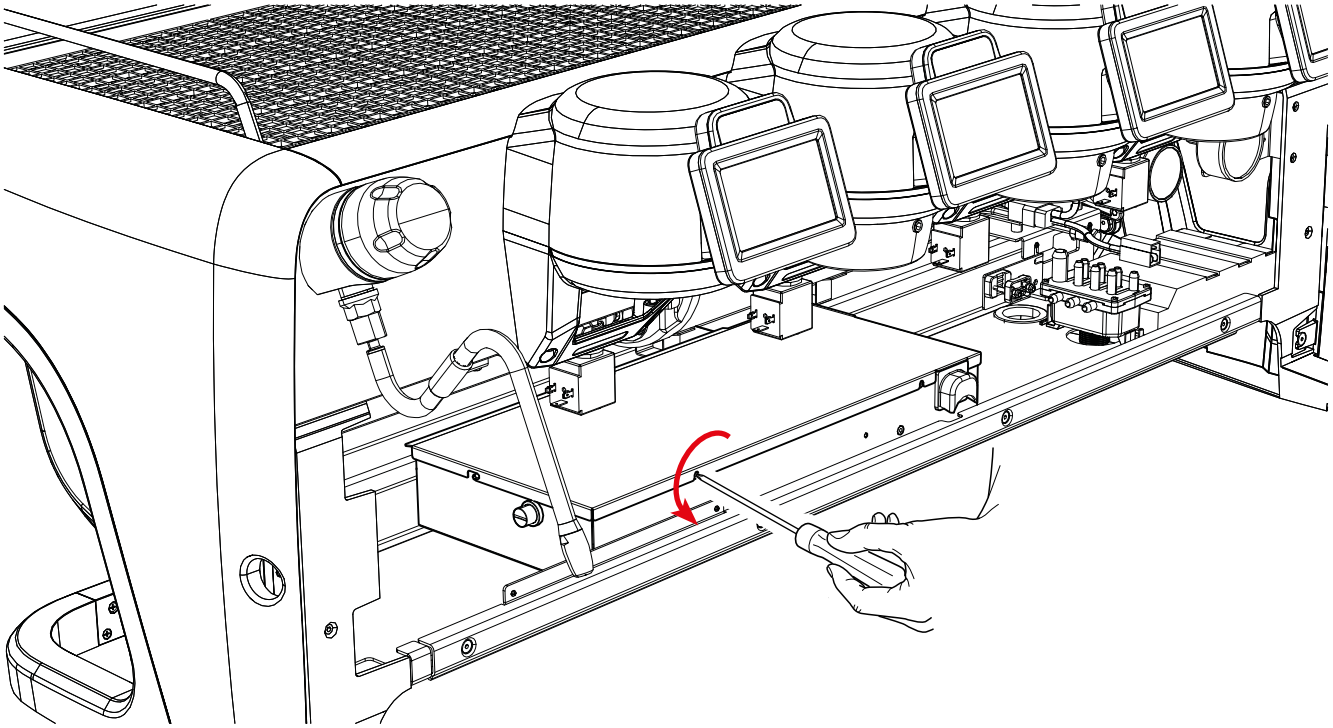
English



4.9 Electrical unit

English

1



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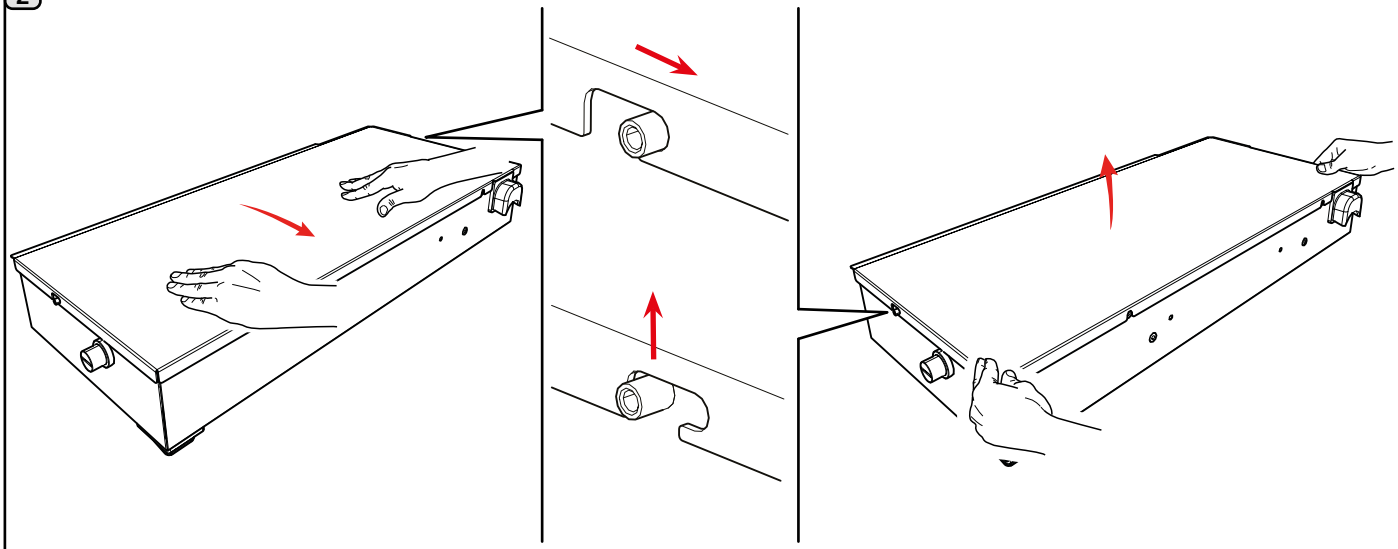
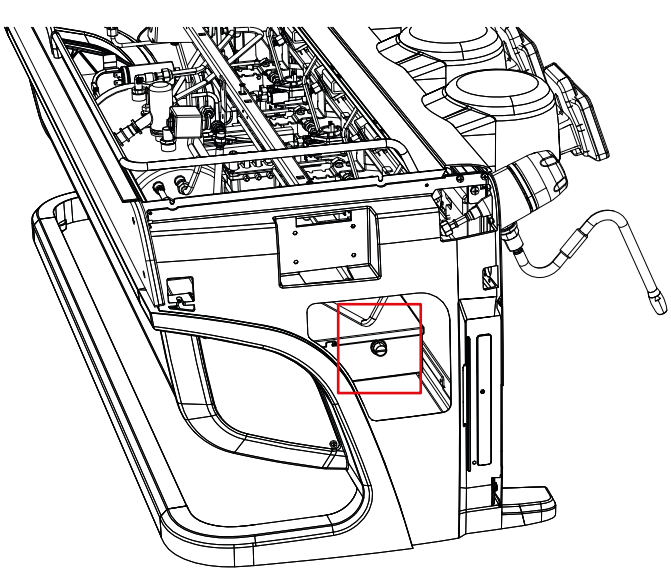
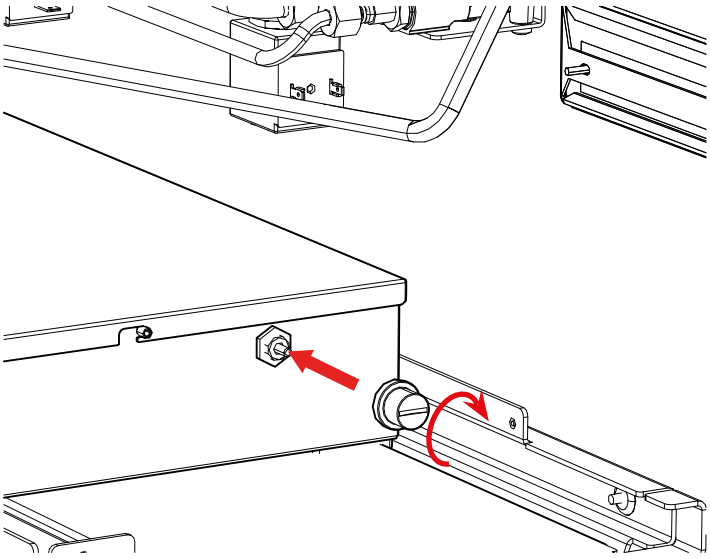
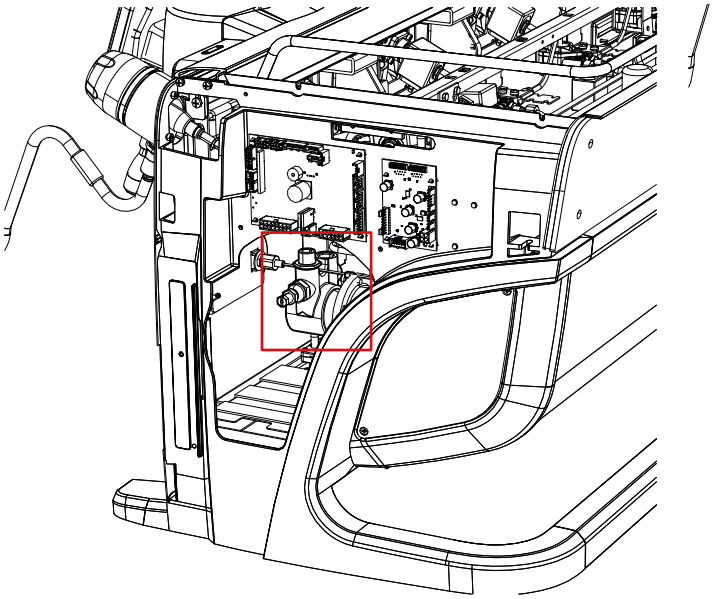


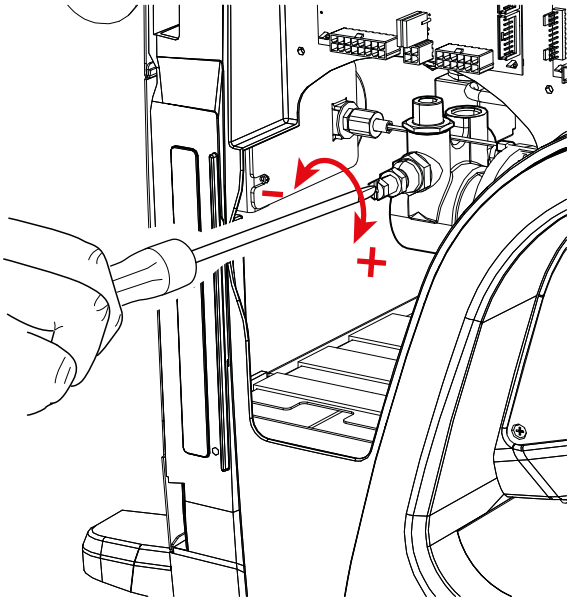
4.10 Safety thermostat





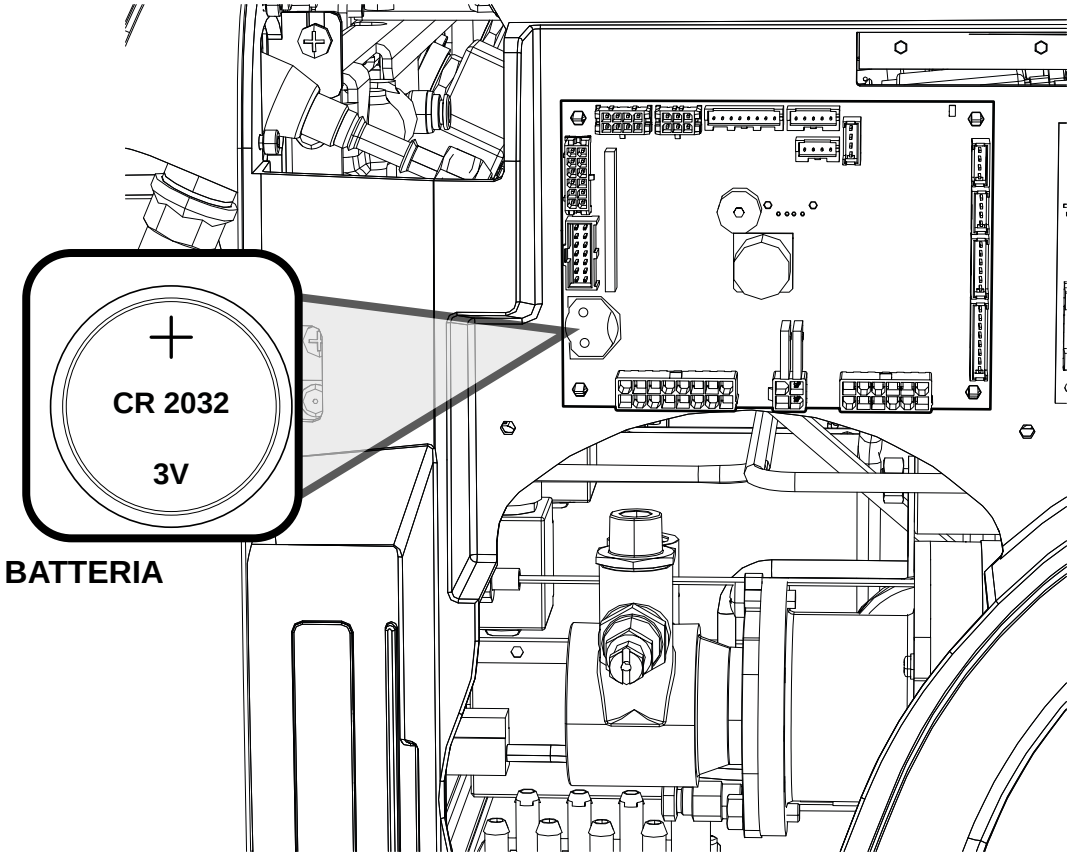
4.11 Volumetric pump



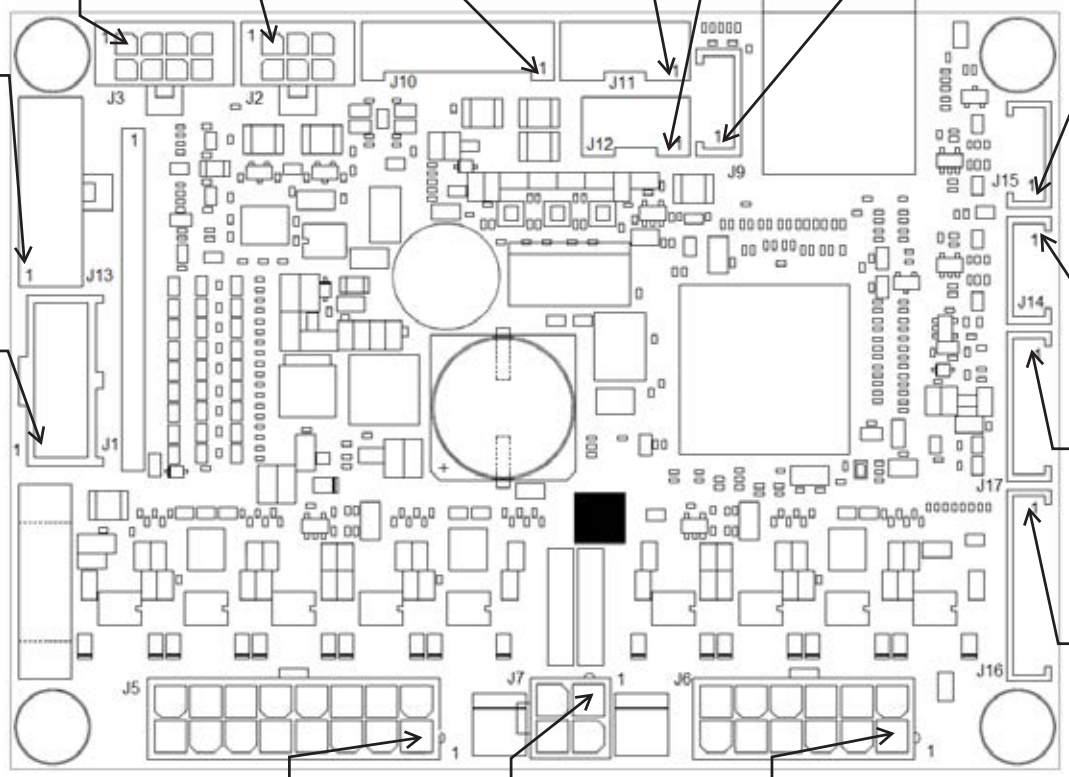


4.12 Battery

English



FUNCTIONAL WIRING DIAGRAM
(LOW TENSION)
CPU BOARD



J10: I2C TASTIERA
1: +24V
2: SDA_1
3: SCL_1
4: INT1
5: INT2
6: INT3
7: INT4
8: GND

J3: RS-232
1: +24V_232
2: GND
3: RS232_RX
4: -
5: +24V_232
6: GND
7: RS232_TX
8: -

J2: RS-485
1: +24V_485
2: 485+
3: GND
4: +24V_485
5: 485-
6: GND

J11: I2C DISPLAY
1: +24V
2: SDA_2
3: SCL_2
4: -
5: GND

J12: I2C EXP
1: +24
2: SDA_3
3: SCL_3
4: GND

J9: UART IoT
1: GND
2: RX_EXE
3: TX_EXE
4: +24V

J13: INGRESSI DIGITALI
1: GND
2: +5V
3: FLUSSIMETRO 3
4: GND
5: +5V
6: FLUSSIMETRO 1
7: GND
8: +5V
9: FLUSSIMETRO 4
10: GND
11: +5V
12: FLUSSIMETRO 2

J15: TERMOCOPPIA 2
1: + Ni-Cr
2: - Ni-Al
3: GND
4: -

J1: TRIAC
1: GND
2, 3,4 : -
5: POMPA
6: RES. CALDAIA 1
7: RES. CALDAIA 2
8: RES. CALDAIA 3
9: RES. BOILER 1
10: RES. BOILER 2
11: RES. BOILER 3
12: RES. BOILER 4
13: SCALDATAZZE
14: GND

J15: TERMOCOPPIA 1
1: + Ni-Cr
2: - Ni-Al
3: GND
4: -

J15: NTC LIVELLO CALDAIA
1: COMUNE LIVELLO CALDAIA
2, 3: -
4: LIVELLO CALDAIA
5: GND
6: NTC CALDAIA

J15: NTC BOILER
2, 4, 6, 8: GND
1: NTC BOILER 4
3: NTC BOILER 3
5: NTC BOILER 2
7: NTC BOILER 1

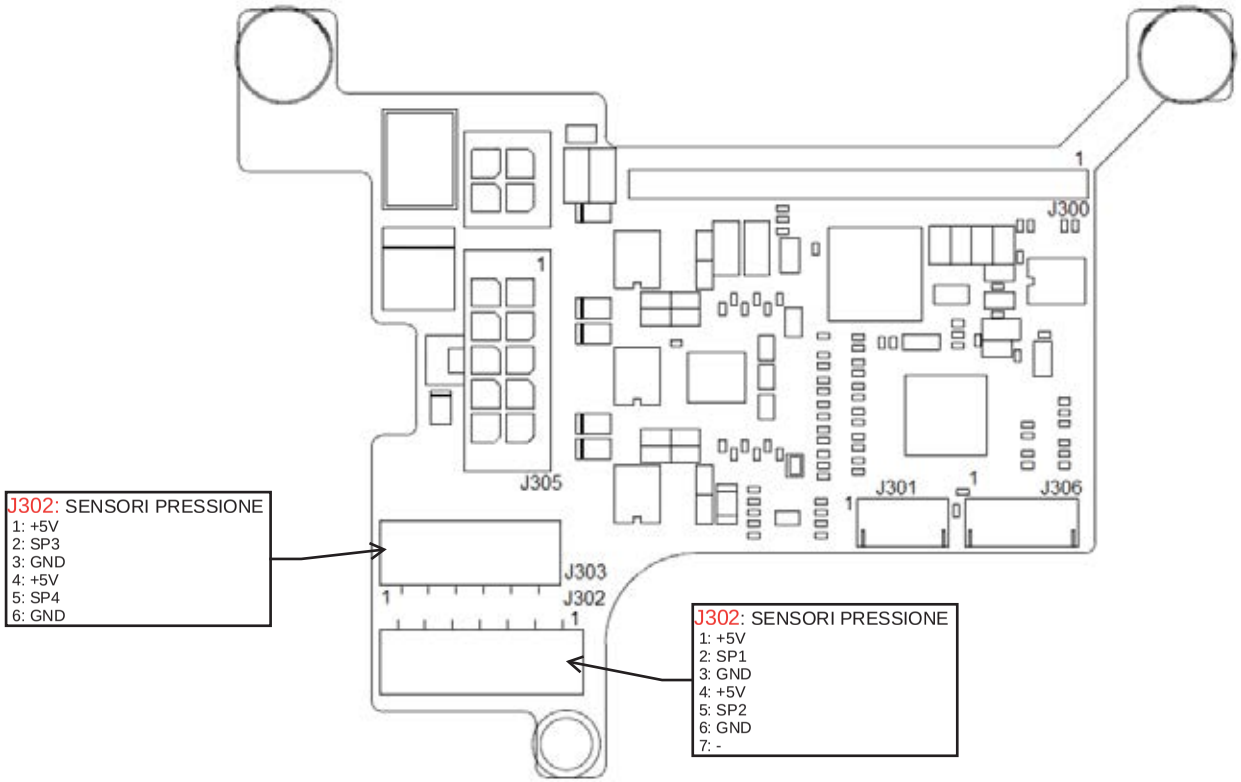
J5: USCITE DI POTENZA
1, 6, 7: -
2, 3, 4: COMUNE +24V
5: COMPRESSORE -
8: EAF
9: EVC
10: EVTS
11: COMPRESSORE +
12: EG1
13: EG2
14: EG3
15: EG4
16: EAC

J7: POWER
1: +24V
2: GND
3: +24V
4: GND

J6: USCITE DI POTENZA (OPT.)
4, 5, 11, 12: -
1: EP1
2, 3: COMUNE +24V
6: EARI
7: EP2
8: EP3
9: EP4
10: EMAV

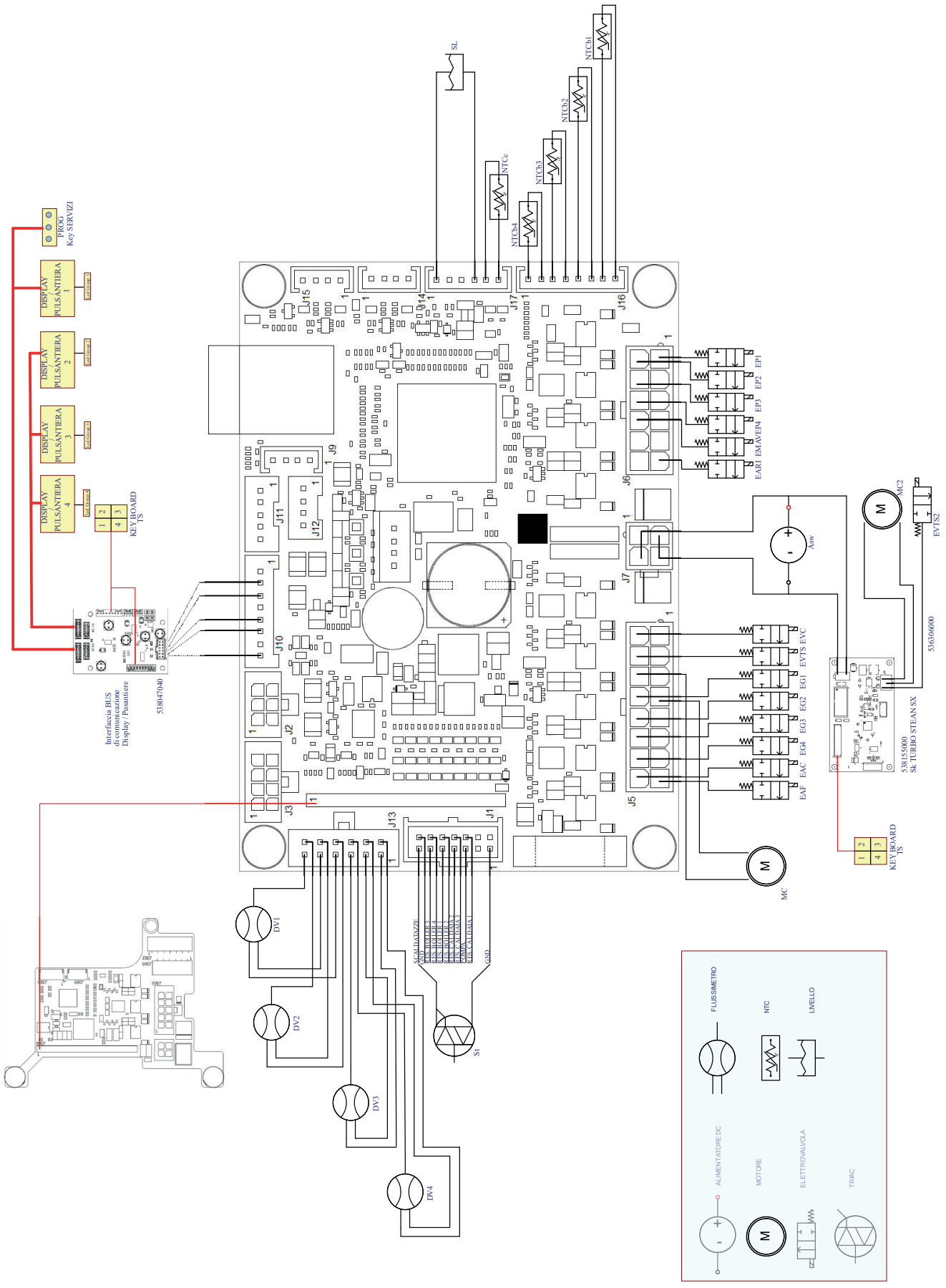
English

FUNCTIONAL WIRING DIAGRAM
(LOW TENSION)
EXPANSION BOARD



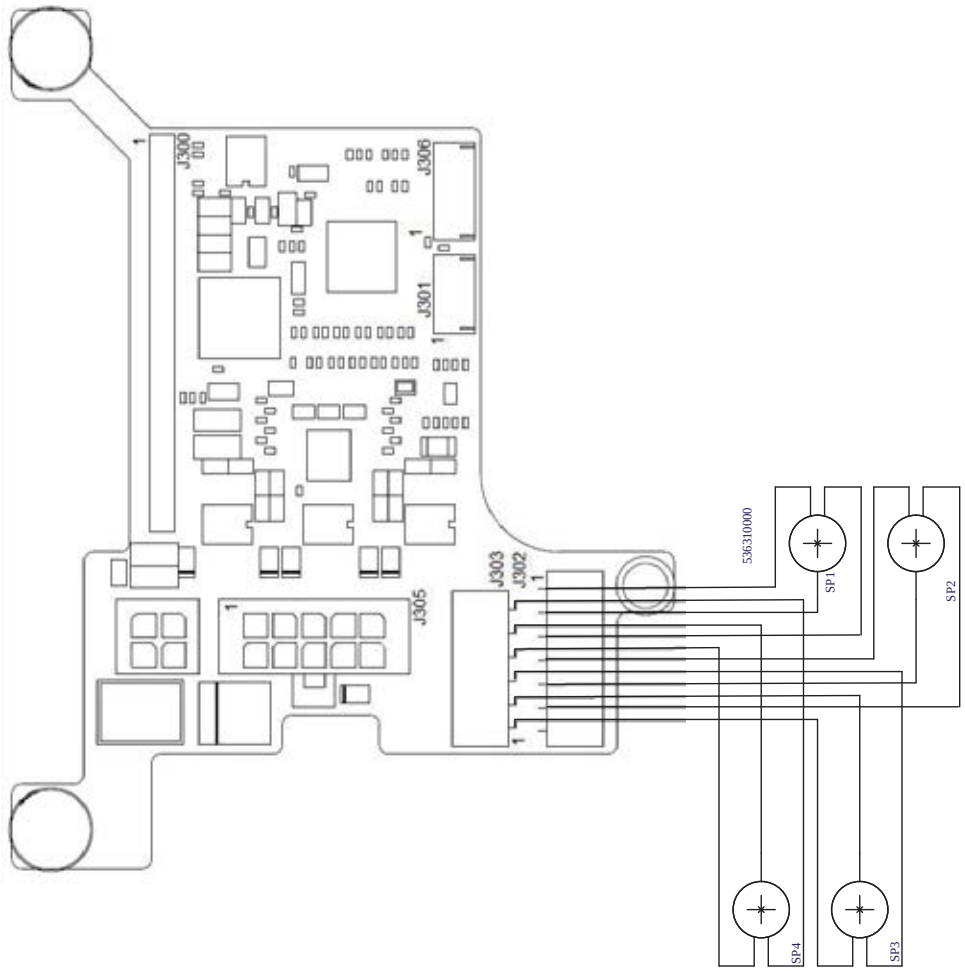
English

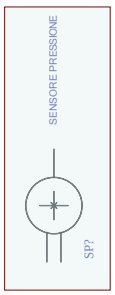
FUNCTIONAL WIRING DIAGRAM (LOW TENSION)



English

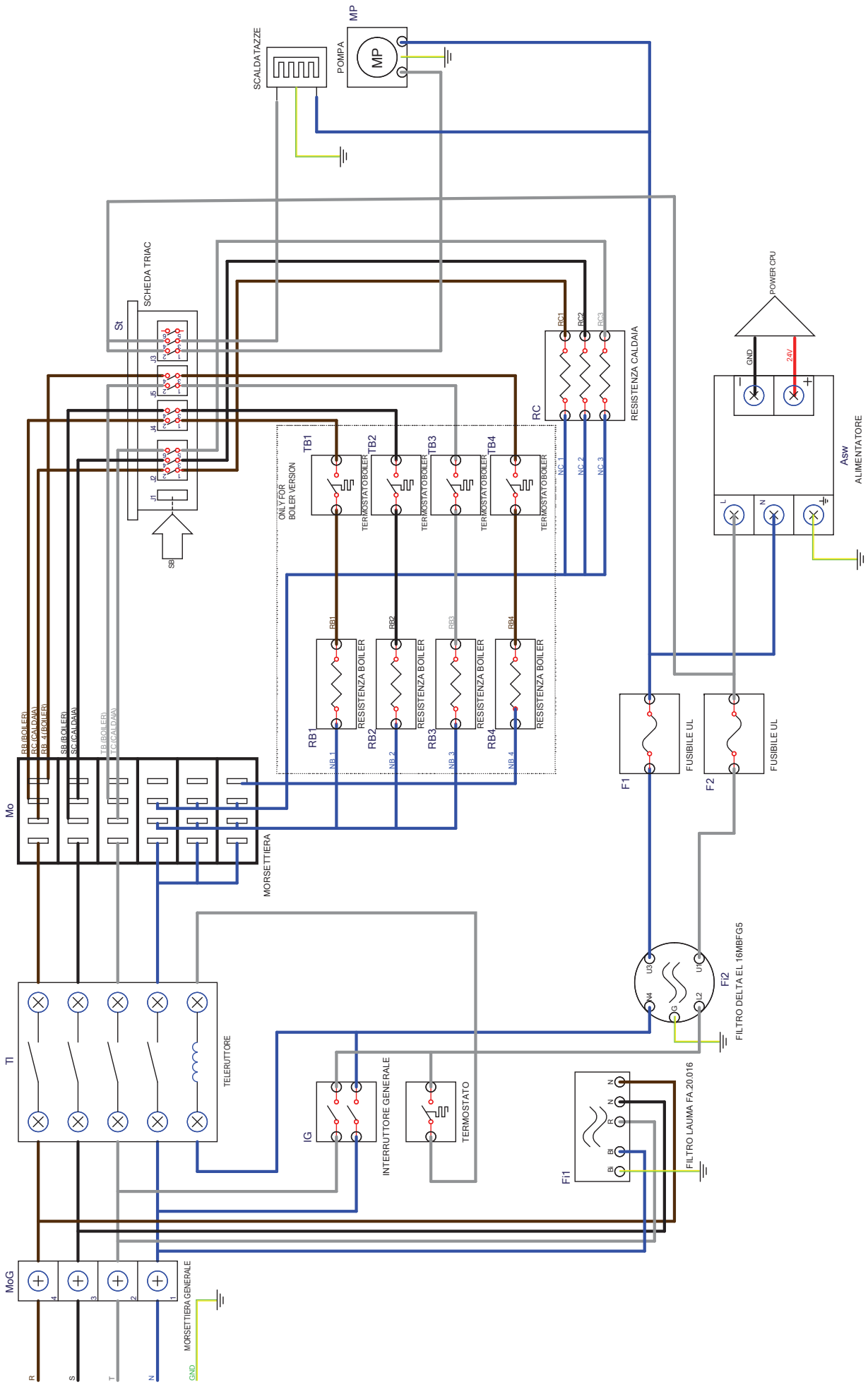
FUNCTIONAL WIRING DIAGRAM (LOW TENSION)





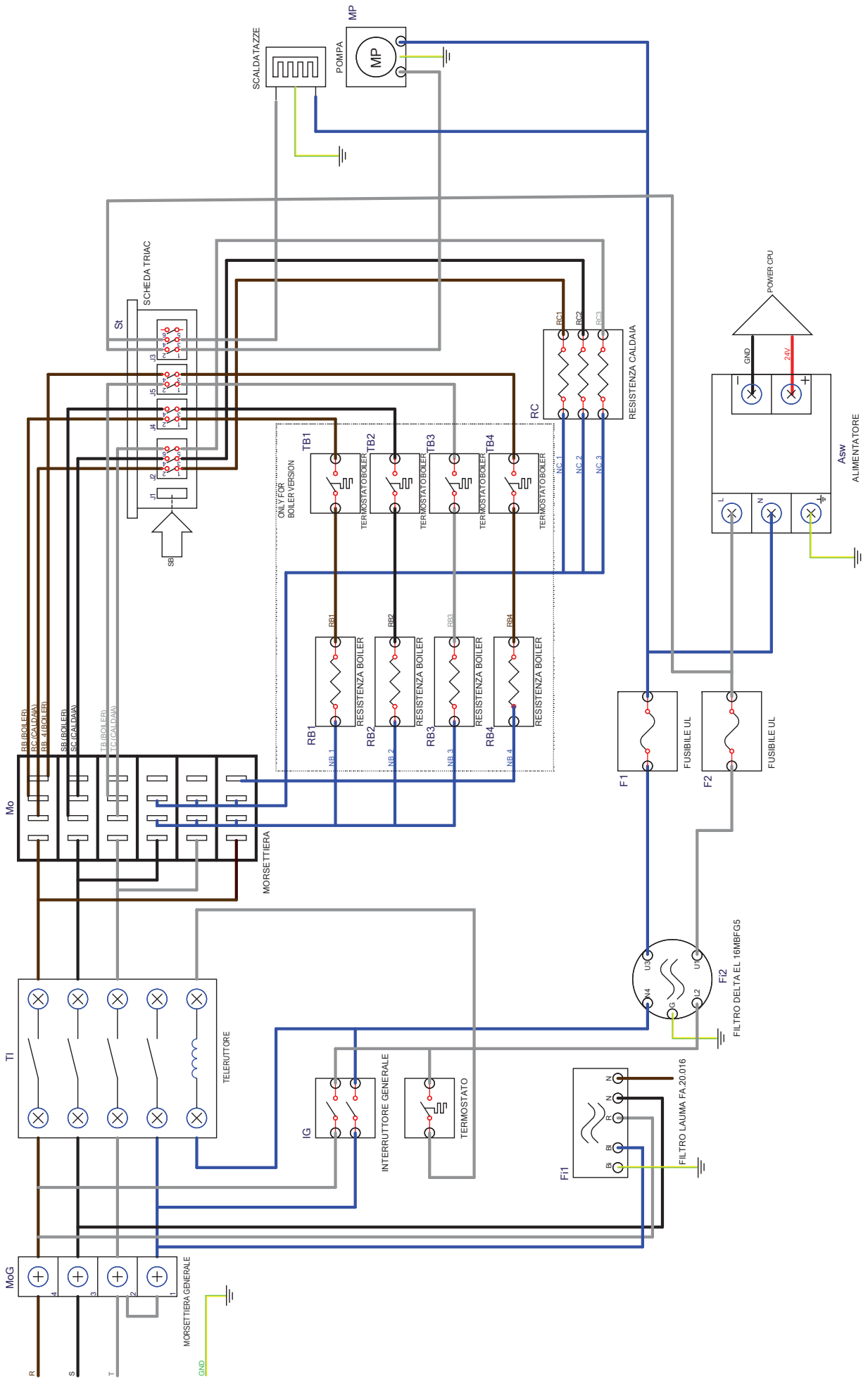
English

POWER WIRING DIAGRAM (1/3)



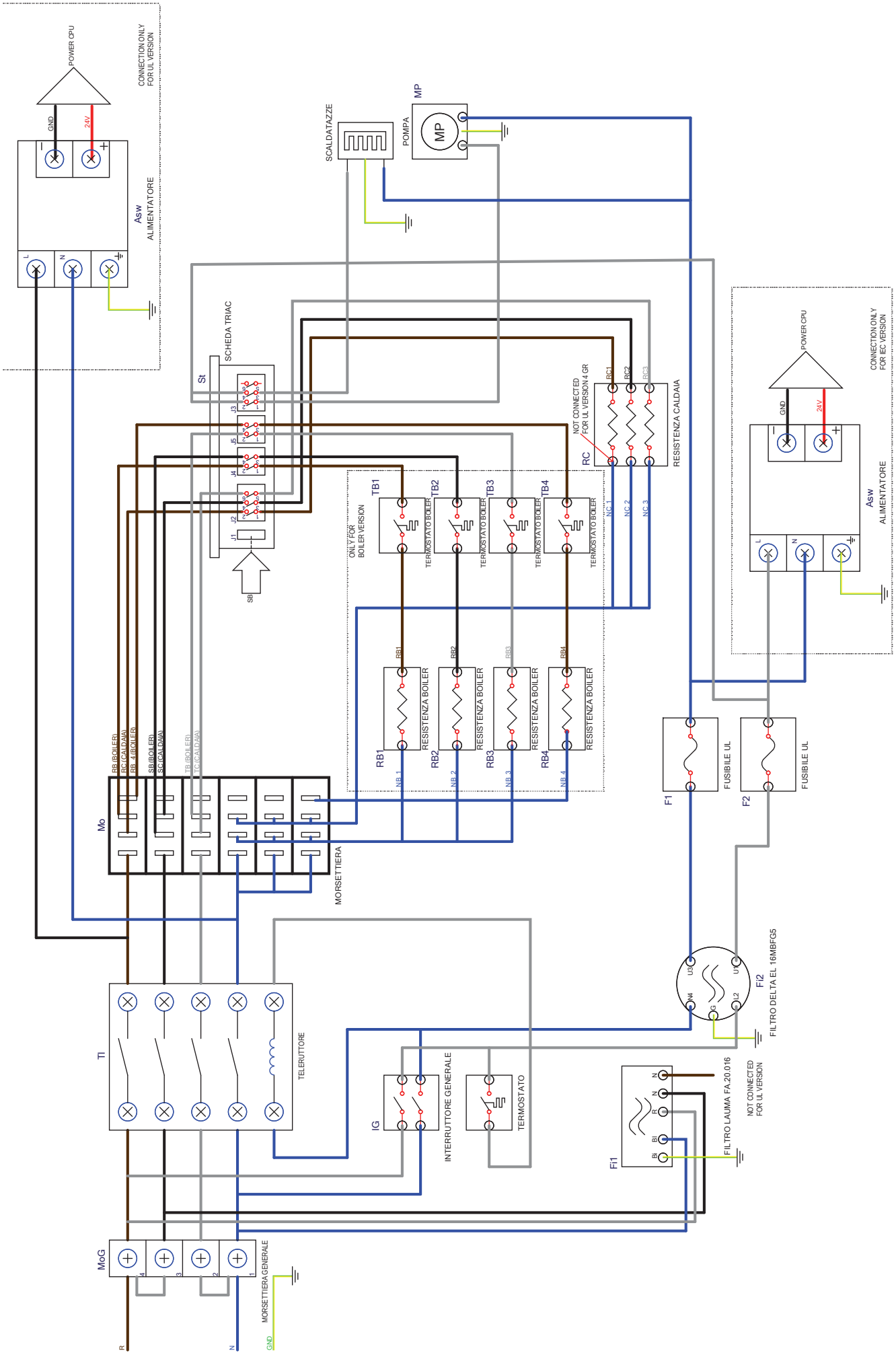
English

POWER WIRING DIAGRAM (2/3)



English

POWER WIRING DIAGRAM (3/3)

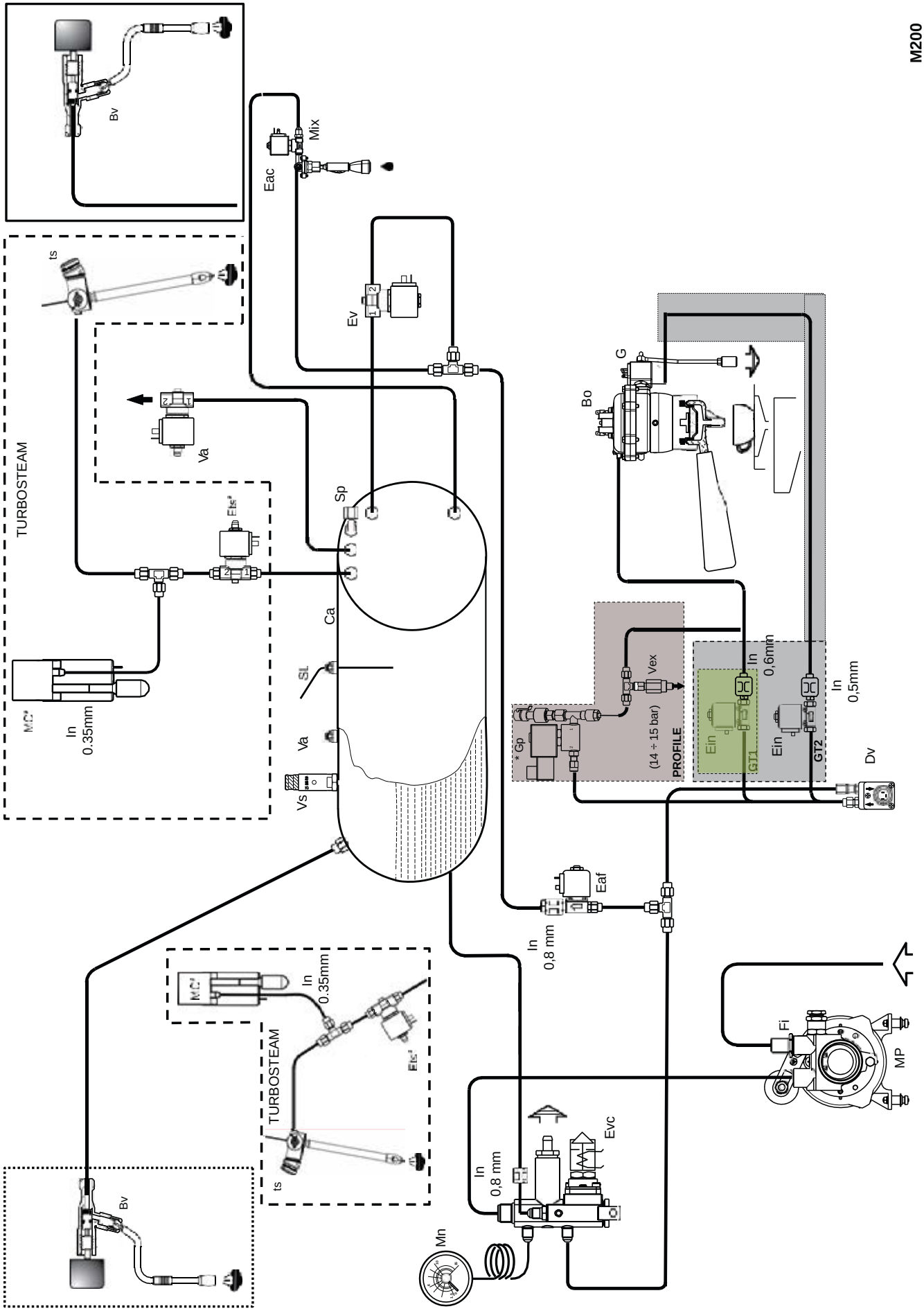


WIRING DIAGRAM LEGEND

ASW = Power supply
BO = Boiler
FUL = Fuse
Fi = Filter
IG = Master switch
MoG = General terminal board
Mo = Clamp
MP.. = Pump motor
RB = Boiler resistance
RC = Service-boiler heating element
Rsc = Cup warmer heating element
St = Triac board
TC = Service-boiler safety thermostat
TB.. = Coffee boiler safety thermostat
TI = Remote-control switch

English

HYDRAULIC DIAGRAM



Hydraulic diagram LEGEND

English

Bac = Hot water delivery spout
Bm = Milk delivery spout
Bo = Boiler
Bv = Steam delivery spout
Ca = Boiler
DV = Volumetric dispensing device
Ea = Anti-backflow solenoid valve
Eac = Hot water solenoid valve
Eaf = Cold water solenoid valve
Ed = Diverter solenoid valve
Edar = Air diverter solenoid valve
Edm = Milk diverter solenoid valve
Ein = Infusion solenoid valve
Etm = Turbomilk solenoid valve
Elf.. = Cold washing solenoid valve
Esm = Milk safety solenoid valve
Ets = Turbosteam solenoid valve
Ev = Steam solenoid valve
Evc = Boiler solenoid valve
Fi = Pump filter
Ht = Heater
G = Coffee solenoid valve
Gp = Proportional solenoid valve
In = Injector
ts = Turbosteam selector
Mix = Water mixer
Mn = Pressure gauge
MP = Volumetric pump
Mpl = Milk pump motor
Reg = Air regulator
SL = Boiler level probe
MC = Motor compressor
Va = Anti-backflow valve
Vex = Expansion/overpressure valve
Vs = Boiler safety valve
WB = Washing box sensor

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EAC

GRUPPO CIMBALI SpA - 20082 BINASCO (MILANO) ITALY

CERT. NR. 50 100 3685 / 10877 / 11721