



## AUTOMATIC COFFEE APPLIANCE MACHINE A CAFÉ AUTOMATIQUE

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# TANGO XP RANGE

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This manual:

is an integral part of the supply and must be read carefully in order that the machine is properly used, in compliance with essential safety requirements

has been drafted in accordance with the provisions of **Machinery Directive 2006/42/EC** and provides the technical information necessary to properly perform all procedures in conditions of safety

must be carefully preserved (protected in a transparent and waterproof cover to avoid deterioration) and must accompany the machine throughout its life, including any changes of ownership. In case of loss or damage, it is possible to request a copy from **Electrolux Professionnel SAS**, reporting the data shown on the identification plate

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## • SAFETY INFORMATION

**Out of Europe :** The appliance must not be used by people (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge of it, unless instructed in its use and supervised by those responsible for their safety.

- Do not let children play with the machine.
- Keep all packaging and detergents away from children.
- Cleaning and user maintenance shall not be made by children without supervision.

**For Europe :** This appliance can be used by children aged from 8 years and above and people with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

- Do not let children play with the machine.
- Cleaning and user maintenance shall not be made by children without supervision.
- Several illustrations in the manual show the machine, or parts of it, without guards or with guards removed. This is purely for explanatory purposes. Do not install the machine without the guards or with the protection devices deactivated.
- Do not remove, tamper with or make illegible the safety, danger and instruction signs and labels on the machine.
- Do not remove or tamper with the machine's safety devices.
- Before carrying out any machine installation, always consult the installation manual, which gives the correct procedures and contains important information on safety.
- Unauthorized personnel must not enter the work area.
- Remove any flammable products or items from the work area.

Machine positioning, installation and disassembly must be carried out by the specialised personnel in conformity with the current safety regulations, regarding the equipment used and the operating procedures.

### ◆ Installation and assembly

- The appliance is only to be installed in locations where its use and maintenance is restricted to trained personnel.
- Follow the installation instruction supplied with the appliance.
- Do not install a damaged appliance. Any missing or faulty parts must be replaced with original parts.
- Do not make any modifications to the parts supplied with the appliance.
- Disconnect the appliance from the power supply before carrying out any installation procedure. Connect the appliance to the power supply only at the end of the installation.
- The appliance is not suitable for installation outdoors and/or in places exposed to atmospheric agents (rain, direct sunlight, freeze, humid water jet or slashing and dusty location, etc.).
- The appliance is not suitable for installation in an area where a water jet could be used.
- The floor where you install the appliance has to be a horizontal plane, stable, heat resistant and clean.
- Access to the service area is limited to persons with the necessary knowledge of safety and hygiene as well as practical experience of the device.
- Leave enough free space around the appliance to facilitate its use and to perform any maintenance operations.
- Before connecting the power and water supplies, check that the electrical and water network are in accordance with the technical information plate of the device.

### ◆ Water connection

- The plumbing connections must be carried out by a specialised personnel.
- The machine is to be connected to the water mains using the new supplied hose-sets according to any national rules that may be applicable. Do not use old hose sets.
- Always use a new set of joints if you remove and re-install the water inlet pipe to the machine.
- Before connection to new pipes, pipes not used for a long time, where repair work has been carried out or new devices fitted (water meters, etc.), let the water flow until it is clean and clear.
- The appliance must be installed with a new softener.
- The dynamic water pressure (mini and max) must be between 1 bar [0.1 MPa] to 10 bar [1 MPa].
- Make sure that there are no visible water leaks during and after the first use of the machine.
- Install an approved dual check valve upstream according to any national rules that may be applicable.
- At the end of the service or in case of prolonged absence cut off the water by the general tap.

### ◆ Electrical connection

- Do not disconnect or modify the security elements in the appliance, the manufacturer is not responsible for the consequences of an inadequate using system.
- Work on the electrical systems must only be carried out by a specialised personnel.
- Make sure that the electrical information on the rating plate agrees with the power supply.

- Make sure to install the appliance in accordance with the safety regulations and local laws of the country where used.
- If the power cable is damaged it must be replaced by the Customer Care Service or in any case by specialised personnel, in order to prevent any risk.

The appliance must be correctly earthed. The manufacturer is not responsible for the consequences of an inadequate earthing system.

- To protect the power supply of the appliance against short circuits and/or overloads, install a thermal fuse or a suitable automatic thermal magnetic circuit breaker, ADS (Automatic Disconnection of Supply).

- To protect the power supply of the appliance against current leakages, install a high sensitivity manual reset RCD (Residual Current Device), suitable for overvoltage category III.

For protection against indirect contacts, refer to point 6.3.3 of EN 60204-1 (IEC 60204-1) with the use of protection devices that ensure automatic cut-off of the supply in case of isolation fault in the TN or TT systems or, for IT systems, the use of isolation controllers or differential current protection devices to activate automatic power disconnection (an isolation controller must be provided for indicating a possible first earth fault of a live part, unless a protection device is supplied for switching off the power in case of a such a fault.

This device must activate an acoustic and/or visual signal which must continue for the entire duration of the fault). For example: in a TT system, a residual current device with cut-in current (e.g. 30 mA) coordinated with the earthing system of the building where the appliance is located must be installed ahead of the supply.

- The power supply must be provided with the following safety features: power switch which completely isolates the machine from the mains (gap between contacts of at least 3 mm), efficient earthing and an effective circuit breaker for protection against earthing leaks; section of the conductors appropriate for a power capacity.

At the end of the service or in case of prolonged absence cut off the appliance by the general switch

#### ◆ Use

- The appliance must be used in room with an ambient temperature of 5°C to 35°C (41°F - 95°F).
- If it is stored at an ambient temperature below 5°C (41°F) the water circuit (boiler-piping) must be drained.
- In case of emergency (fire, surge, abnormal noise, etc. the first thing to do is to cut off the current and close the water tap.
- Beware of hot surfaces such as cup heaters, the unit heads and the hot water and steam outputs. Never install containers filled with liquid on the top of the appliance.
- Beware below the appliance, the hot surface under boilers (front right).
- Sound pressure emission does not exceed 70 dB (A)
- In case of prolonged absence start imperatively a cleaning cycle of the appliance.
- Leave space free around and under the appliance to facilitate the cleaning.
- Keep clear of obstruction all ventilation openings in the appliance enclosure or in the structure for building-in.
- Do not remove the hoppers before turning the appliance OFF.
- The appliance is used for coffee, the coffee bean not need special or particular temperature and duration of storage and the safety of the coffee bean do not depend upon the temperature of the appliance.
- If the appliance freezes, wait 24 hours at a minimum temperature of 10°C (50°F) before restarting the appliance.

#### ◆ appliance cleaning and maintenance

- Put the appliance in safe conditions before starting any maintenance operation. Disconnect the appliance from the power supply and carefully unplug the power supply cable, if present.
- Depending on the model and type of electric connection, during maintenance operations, the cable and plug must be kept in a visible position by the operator carrying out the work. Do not touch the appliance with wet hands or feet or when barefoot.
- Do not remove the safety guards.
- Respect the requirements for the various routine and extraordinary maintenance operations. Non compliance with the instructions can create risks for personnel.
- Extraordinary maintenance, checking and overhaul operations must only be carried out by a specialised personnel or the Customer Care Service, provided with suitable personal protection equipment (safety shoes and gloves), tools and ancillary means.
- Do not clean the appliance with jets of water.

#### ◆ Repair and extraordinary maintenance

- Repair and extraordinary maintenance have to be carried out by specialised authorised personnel. The manufacturer declines any liability for any failure or damage caused by the intervention of an unauthorized technician by the Manufacturer and the original manufacturer warranty will be invalidated.
- The appliance should be descaled only by a specialised personnel.
- Do not forget to regenerate your water softener periodically.

- **STANDARD VERSIONS**

► **TANGO SOLO XP**

<b>DIMENSIONS</b>	
Width	39.8 mm 15.7"
Height	81cm - 81.7 cm 31.9" - 32.1"
Depth	64.2 cm 25.3"
<b>WEIGHT</b>	120 = 83 kg [183 Lbs] 12P = 85 kg [187 Lbs] 130 = 89 kg [196 Lbs] 13P = 91 kg [200 Lbs]
<b>CAPACITIES (maxi)</b>	
Coffee boiler	1.8 liters
Steam boiler	1.8 liters
Coffee grounds tray	75 coffees
Numbers of espresso 40ml / hour	220
Numbers of lungo 100 ml / hour	150
Hot water Liter / hour	30



<b>STANDARD</b>			<b>Power (W)</b>		<b>Power typical (W)</b>		
			mini	maxi	Total	Boilers	
Rep	Voltage (V)	Current					
1	380-415V 3N 50/60Hz	12.3A - 13.3A	8080	9600	8500	5500 W	3000 W
2	200-240V 1N 50/60Hz	21A - 25A	4200	5990	5500		
7	200 V 1N 50/60Hz	21A	-	-	4200		
8	208-240V 1N 60Hz	22A - 25A	4500	5990	5500		

In monophase maximum 2 static relays are ON maximum power is 5500 W Typical

► **TANGO DUO XP**

<b>DIMENSIONS</b>	
Width	49.2 cm 19.4"
Height	81cm - 81.7 cm 31.9" - 32.1"
Depth	64.3 cm 25.3"
<b>WEIGHT</b>	220 = 97 kg [213 Lbs] 22P = 99 kg [218 Lbs] 230 = 103 kg [227 Lbs] 23P = 105 kg [231 Lbs]
<b>CAPACITIES (maxi)</b>	
Coffee boiler	1.8 liters
Steam boiler	1.8 liters
Coffee grounds tray	75 coffees
Numbers of espresso 40ml / hour	440
Numbers of lungo 100 ml / hour	300
Hot water Liter / hour	30



<b>STANDARD</b>			<b>Power (W)</b>		<b>Power typical (W)</b>		
			mini	maxi	Total	<b>Boilers</b>	
Rep	Voltage (V)	Current				Steam	Coffee
1	380-415V 3N 50/60Hz	12.3A - 13.3A	8080	9600	8500	5500 W	3000 W
2	200-240V 1N 50/60HZ	21A - 25A	4200	5990	5500		
7	200 V 1N 50/60Hz	21A	-	-	4200		
8	208-240V 1N 60Hz	22A - 25A	4500	5990	5500		

In monophase maximum 2 static relays are ON maximum power is 5500 W Typical

## ► FRIDGE MODULE

DIMENSIONS	
Width	26.5 cm 10.2"
Height	51.5 cm 20"
Depth	50 cm 19.6"
<b>Weight</b>	30 kg 66.1"
CAPACITIES	
Milk tank (liter)	9



The fridge module is only fitted on the **left side** of the machine with the pump milk unit.

## ► Tools list

Factory code	Code	Description FR	Description EN
54260	0UNBFZ	Verre doseur	Measuring cup
FR0102	0UN224	Outil de montage douille	Assembly tool for sleeves
FR0110	0UN135	Outil chasse douille	Tool for driving out sleeves
54204	0UNDM7	Boite plastique	Plastic box
NA2022		Toile support pesée	Weighing kit support
FR0115	0UNBFY	Outil extraction chemise	Liners extraction tool
92018	0UNBG0	Clé à pipe Ø8	Wrench pipe Ø8
84235	0UN092	Graisse IKV-Fluor	IKV-Fluor grease
		Clé plate 12mm à cliquet	Flat wrench 12mm cliquet
		Clé plate 7mm à cliquet	Flat wrench 7mm cliquet
		Tournevis plat	Flat Screwdriver
		Tournevis plat TOMPOUCE	Flat Screwdriver TOMPOUCE
		Tournevis cruciforme Philips	Philips Screwdriver
		Niveau	Spirit Level
		Ensemble clés plates 6 à 26mm	Flat wrench 6 to 26mm
		Pinces	Clamp
		Ensemble clés BTR	BTR Wrench set
		Multimètre	Multimeter
		Pince coupante	Cutting clamp
		Maillet	Plastic hammer
		Loctite 222 - 262 - 547 - 601	Loctite 222 - 262 - 547 - 601
PC42		Graisse Silicone 8104	Silicone Grease
		Pâte de contact thermique	Thermal contact paste

## • MACHINE INSTALLATION

The machine must be installed on a horizontal plane.

A space of 5 cm (1.9") should be left all around the machine; and do not obstruct the air inlets on the top of the machine. Provide an electricity supply corresponding to the power of the machine, a water supply and a "waste water" drain. The machine must not operate without its legs.

### ► Preparation of the machine

The machine is delivered in a cardboard packing case and is screwed to a wooden pallet.

#### ◆ Unpacking the machine

1. Cut the banding with shears.
2. Open the packing case and remove the box containing the accessories.
3. Unscrew the nuts holding the machine to the pallet by tilting the pallet slightly.
4. Separate the packing case from the pallet
5. Remove the machine from the pallet and install it on wooden blocks.
6. Remove the transport screws and washers.

→ list of accessories box:

- Jug
- Detergent box
- Seal copper
- USB key
- Fitting M3/8- F1/2
- electrical Studs strip

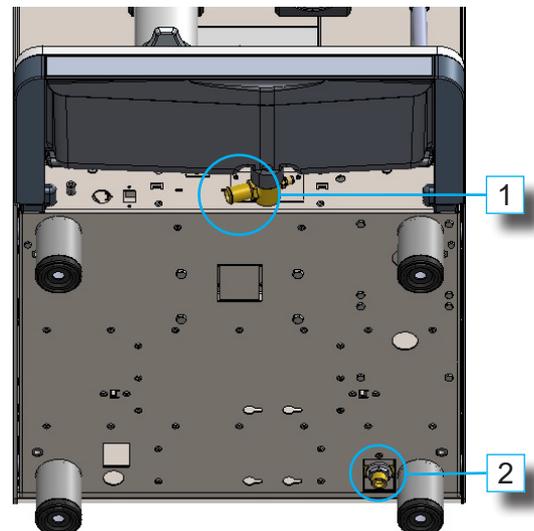
#### ◆ Installing the machine

Position the machine in its final location, and level it using rubber washers if necessary.

### ► Hydraulic connections

The machine is delivered with a complete connection kit including a stainless steel braided water hose 2 m length and a drain hose 2 m in length with a clamp located in the box of accessories. The appliance must be install with a new softener. Check the tap of the water supply is closed before installing the machine.

1. Solo and Duo have the same connection.
2. Inlet under the machine on the rear right.
3. Drain under the machine on the middle front.
4. Both already mounted.
5. Screw the straight part of inlet water pipe (3/8') on the water softener outlet union.
6. The water softener must be fed directly by the mains via a shut-off tap allowing a sufficient flow, Ø 8 min. Do not forget the seals.
7. Put the softener in the flush position.
8. Open the supply tap.
9. Run a flush of the softener.
10. Put the softener in the working position.
11. Fit the drain hose on the fitting in the middle front of the machine.
12. Check for leaks, and make sure that the drain tube allows water to flow to the main drain without any reverse slope.



1. Drain outlet
2. Inlet water

## ► Electrical connections

### Put the machine main switch in position 0, before any intervention.

1. The machine is delivered with a 5-core electric cable and a system of straps to allow for 3-phase or single-phase connection according to the installation.
2. The machine is pre-wired in accordance with the indications on the order and the country of destination.
3. Before connection, check the conformity of the machine with the electrical circuit to which it is going to be connected.

### To do this:

Compare the indications on the data plate, inside the drawer housing, with the characteristics of the circuit to which the machine is to be connected. Remove the left side of the machine and check that the connection of the straps on the terminal strip corresponds to the connection required (a diagram is glued to the inside of the side).

## ADAPTATION OF THE TOROIDAL TRANSFORMER TO THE VOLTAGE OF THE CIRCUIT

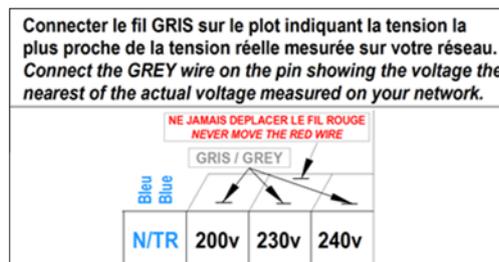
The machine is equipped with a multi-voltage transformer in order to ensure the correct supply voltage to the electronics and 24-volt motors.

The machine is pre-set in the factory according to the country of destination (see page 7 and/or 8).

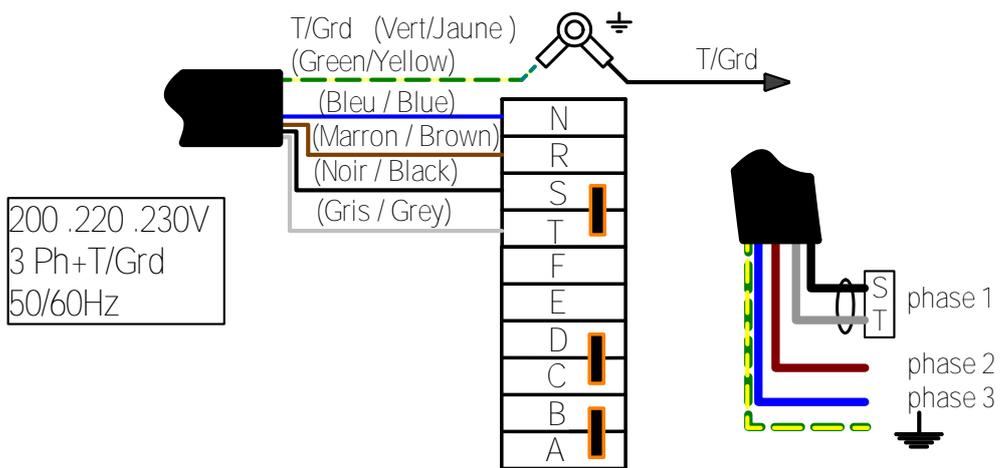
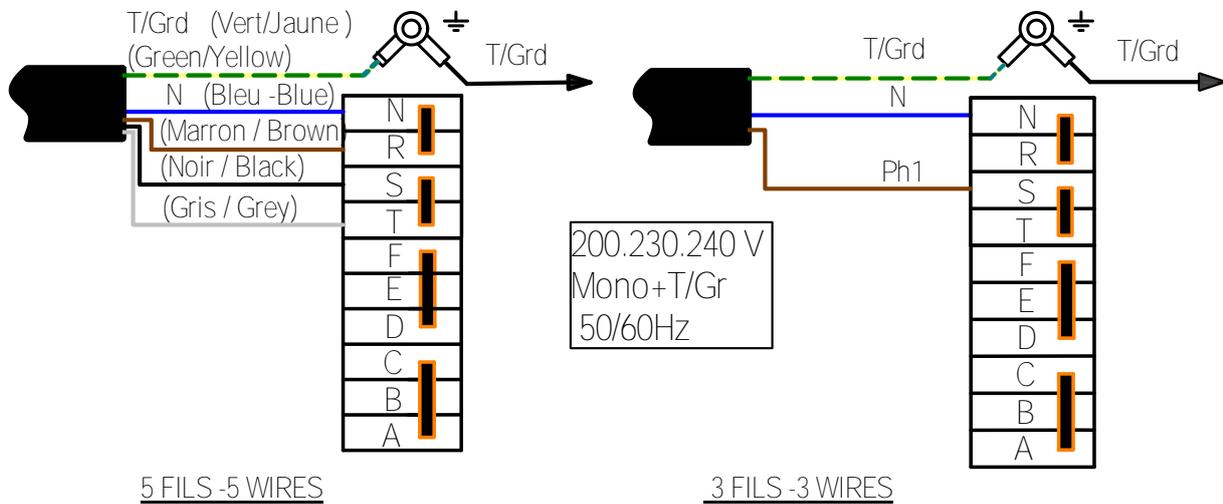
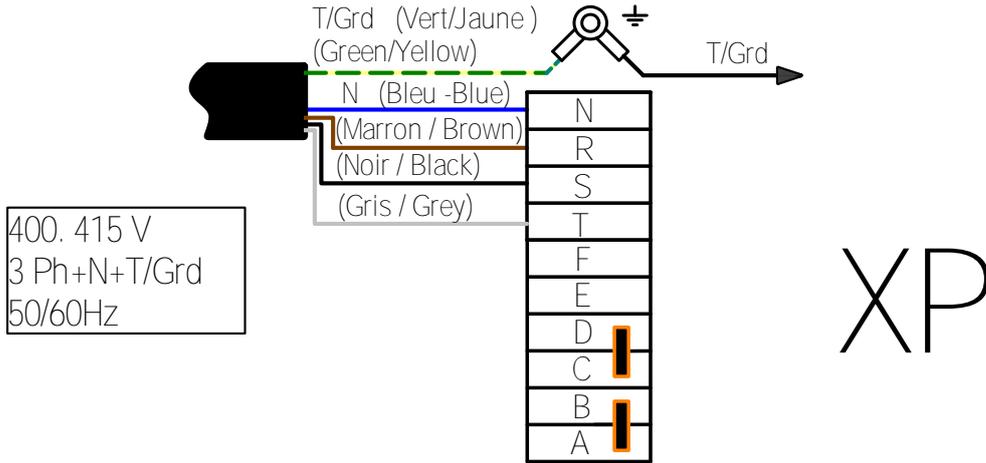
### Example:

1. For Europe, the red wire is connected to the 230V terminal.
2. Once the connection has been performed correctly, it is nevertheless advisable to check that the voltage is  $230V \pm 5\%$ .
3. The low voltage should be about of 22V. These voltages should be checked with the machine working and the main switch closed.

**Factory code : 46330**



# BRANCHEMENT BORNIER / TERMINAL CONNECTING



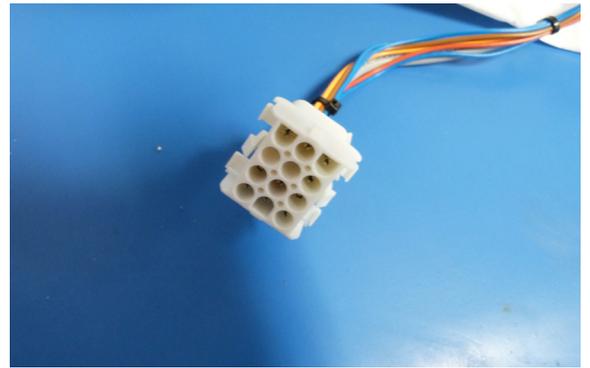
IN ALL CASES THE GREEN/YELLOW WIRE MUST BE CONNECTED TO THE EARTH OF THE INSTALLATION.

## ► Connecting the refrigerator module to the machine

### ◆ Electrical part:

The refrigerator is composed of a supply cable for the mains and computer connection to the machine.

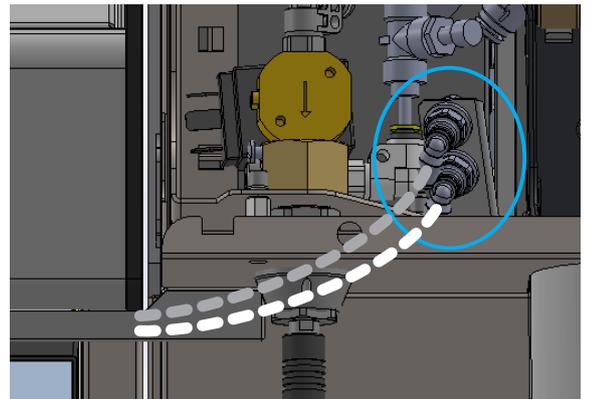
1. Place the refrigerator on the left of the machine
2. The cable connector has a fool proofing device, if this makes connection difficult, the connector is the wrong way round.
3. The connector on the refrigerator is located under the refrigerator at the right back.



### ◆ Hydraulic part - milk pump

With a pump milk, there are 2 quick couplers differentiated with 2 different colors (grey, white). Refer to the pipes inside the machine on the connection for the positioning, they have color rings to identify them.

Upper grey = water flow  
Lower white = milk flow

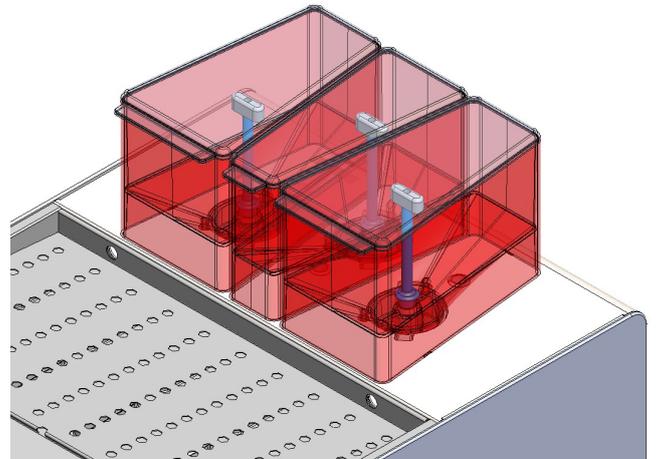


## ► Installing the bins

To avoid damage during transport, machines are delivered with the bins removed.

To install the bins, by the handle inside the bin, to verify that the flap is closed. When the flap is opened it's impossible to remove the bin from the machine.

Capacity: 1 kg for the larger bin.  
Capacity: 0.75 kg for the small bin.



## ► COMMISSIONING

### ◆ Switching on the machine and Turning on the heating

Once all the connections are made and checked (water supply, electricity supply and drain).

1. Remember to open the water tap supplying the machine.
2. Set the main switch in position 1 (located below the drip tray on the left).
3. As soon as the electricity is switched on, the boilers fill automatically.
4. The heating of all the parts starts automatically if the filling is correct.
5. When the machine reaches its operating temperature, it performs a self-check.

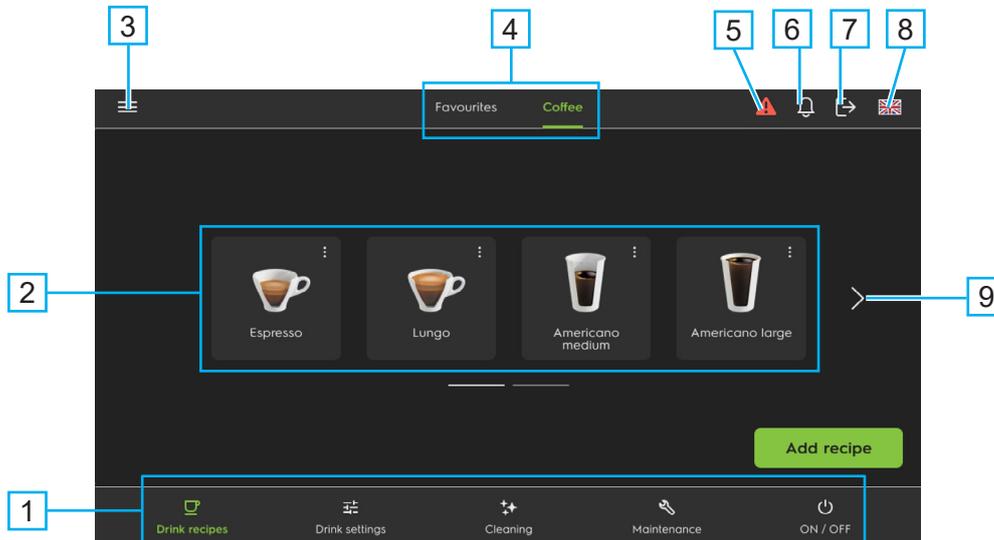
These initialization phases are very important for the proper functioning of the machine. They are only possible if the coffee grounds drawer is in place, and they must not be interrupted, for instance by removing the drawer. (The steam pressure and the temperature of the groups are visible on the screen during heating). The machine is operational once heating has been switched on and the self-check performed.

## • INTERFACE

The level 0 (User) includes the main screen for making the products, the hot water, the steam and access to the quick access screen, which allows the user to have direct controls such as to Stop the machine or put it in Standby.

### ► Main Screen

1. Quick access functions
2. Choose the icon and check that the colour of the bar top left corner the icon corresponds to the mill that you want to use; then press the icon to launch a cycle.
  - PURPLE : left mill
  - ORANGE : central mill
  - GREEN : right mill
3. Icon to access the list of main functions.
4. Icon to access family products
5. Icon to access the error codes / alarms activated.
6. Icon to access Notifications.
7. Icon to access to different profiles.
8. Icon to choose the language.
9. Scrolls the product keyboards.



## ► Login screen

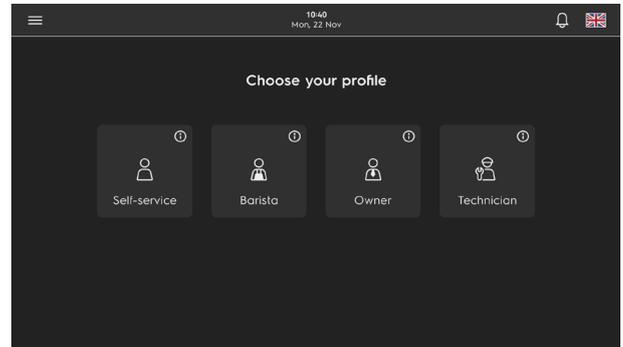
This sub menu allows access to profile such as Self-service/Barista/owner/Technician.  
Once the security code has been confirmed the levels 1 (Customer) or 2 (technician) are accessible (according to the Code).

### ◆ Differentiated Access

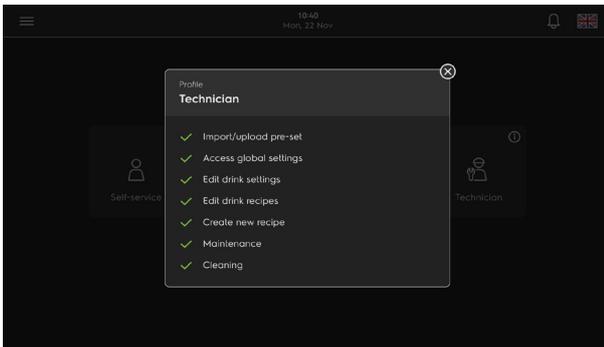
1- Switch on the machine.



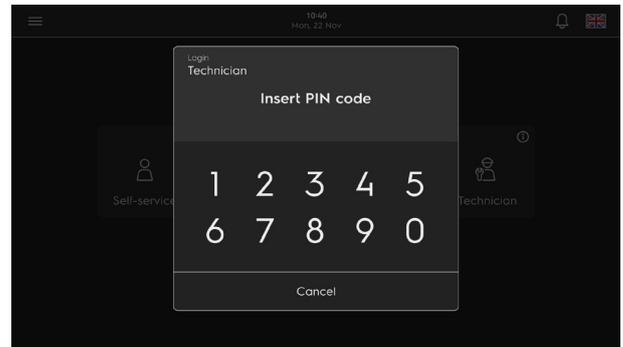
2- Choose your profile, Self-service/Barista/owner/Technician.



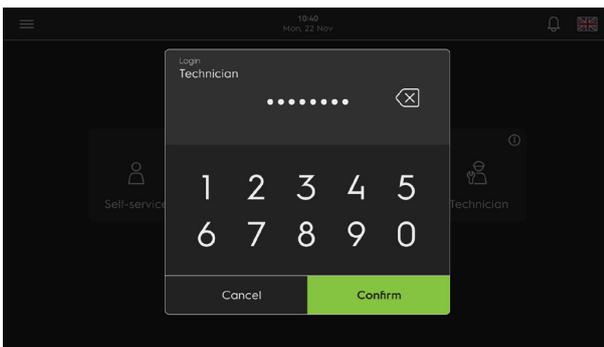
3- List of options available for the Technician.



4- Insert PIN code.



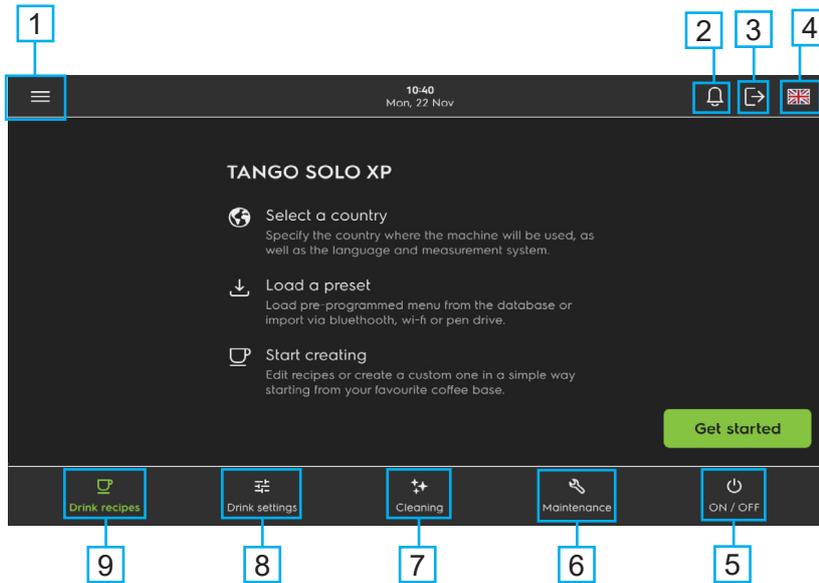
5- Confirm the pin code to login into the machine.



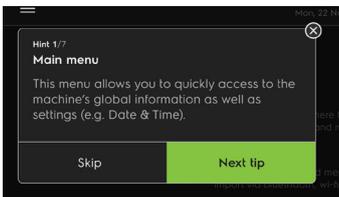
## ► Onboarding

### ◆ Walkthrough

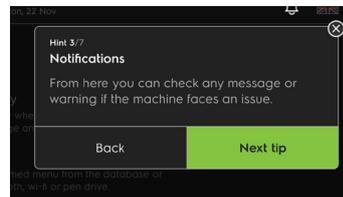
This menu allows user to get the information related quick access icons.



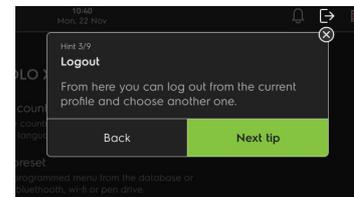
1- Main menu, refer [p.20](#).



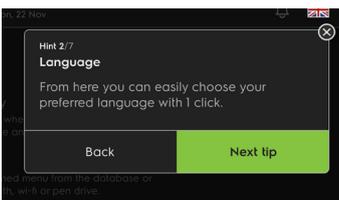
2- Notifications, refer [p. 21](#).



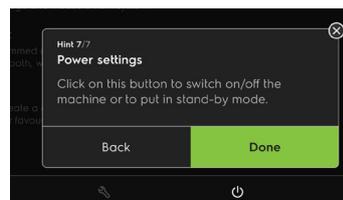
3- Logout



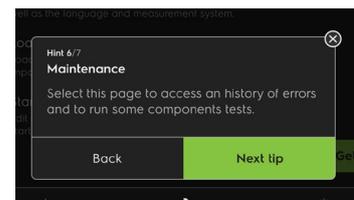
4- Language, refer [p. 23](#).



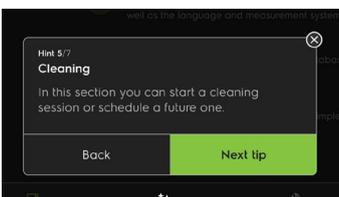
5- On/Off, refer [p. 15](#).



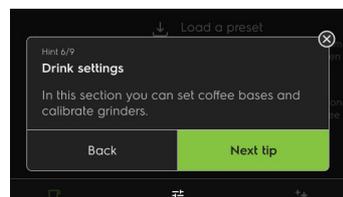
6- Maintenance, refer [p. 39](#).



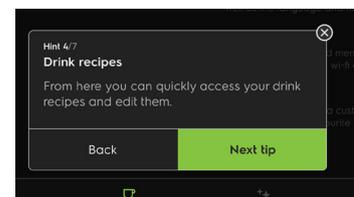
7- Cleaning, refer [p. 31](#).



8- Drink setting, refer [p. 28](#).

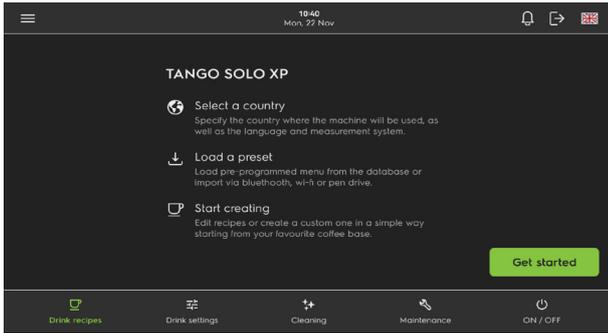


9- Drink recipes, refer [p. 26](#).

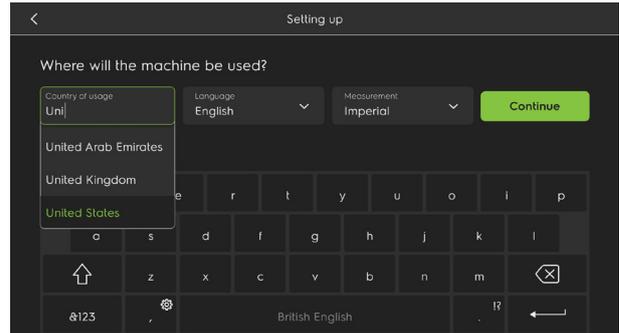


## ◆ Setting up : location

1- Tap the button «Get started»

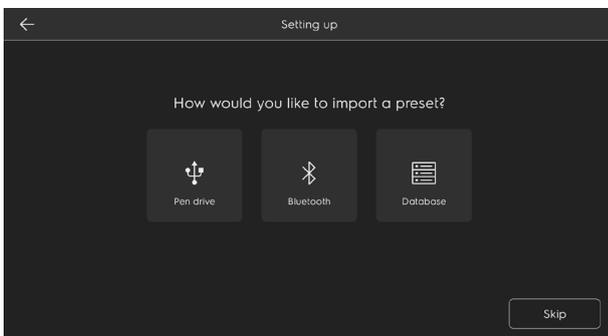


2- Then 3 informations to fill:  
Country of usage / Language / Measurement.

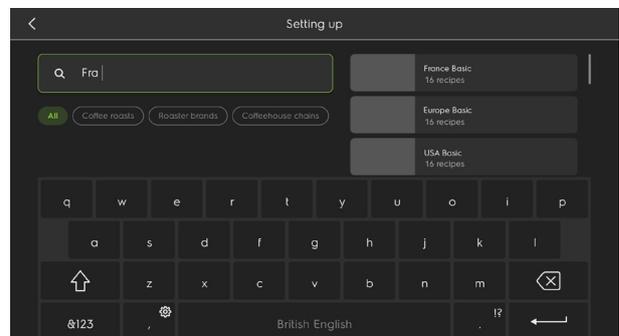


## ◆ Setting up : presets

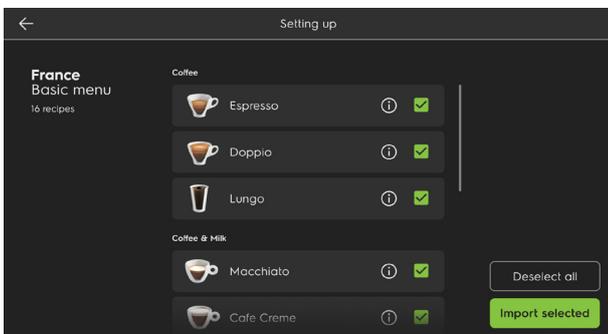
1- Select the preset method to import the data.



2- Search base of coffee category wanted and select it on the list on the right.

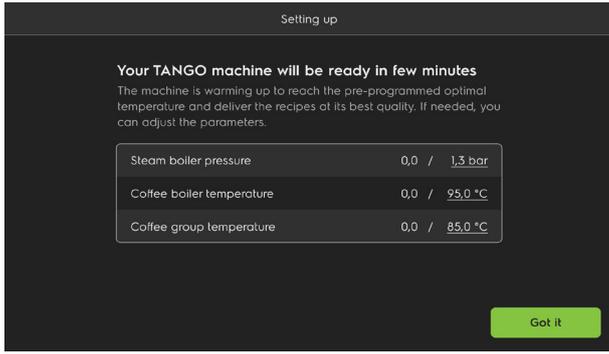


3- Select the products wanted from the menu and Tap on import.

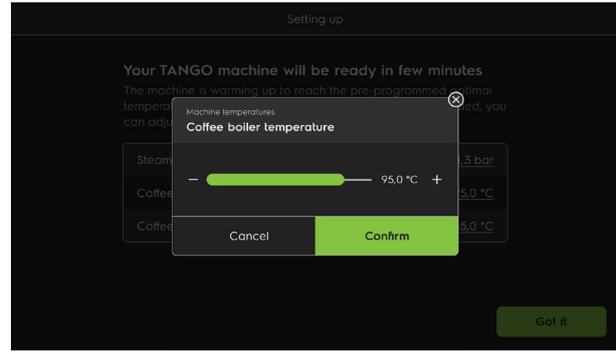


◆ **Setting up : Machine warming up**

1- Machine is warming up, if needed you can adjust the parameters visible on the screen.  
left value = actual value / right value = set value



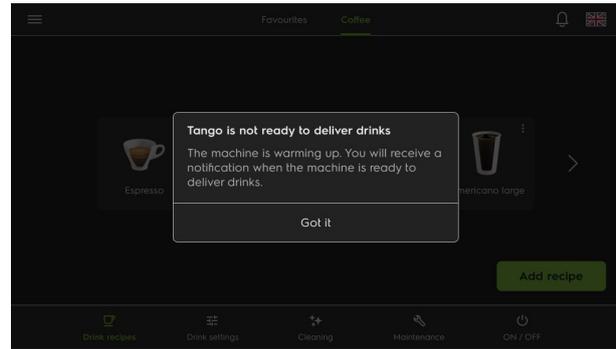
2- Example with the boiler temperature to set, confirm to validate.



3- When the warming up finished, the main screen appears and the machine is available.



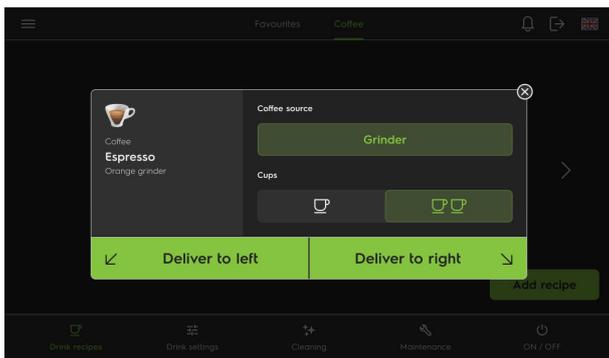
4- Pop-up if the machine is warming up and the user try to launch a drink.



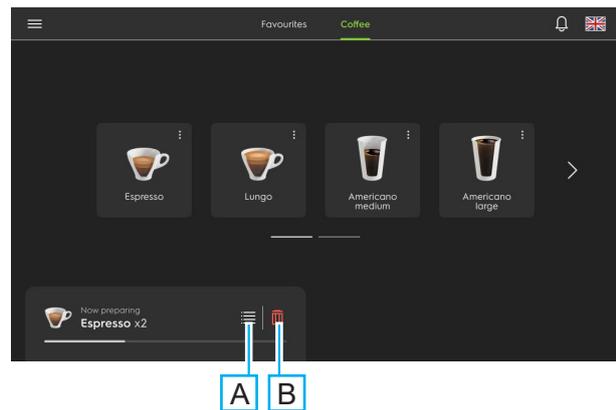
► **Operating**

◆ **Drink delivery**

1- The user can choose the number of cups (maximum 2) and the side of delivery (only for DUO).

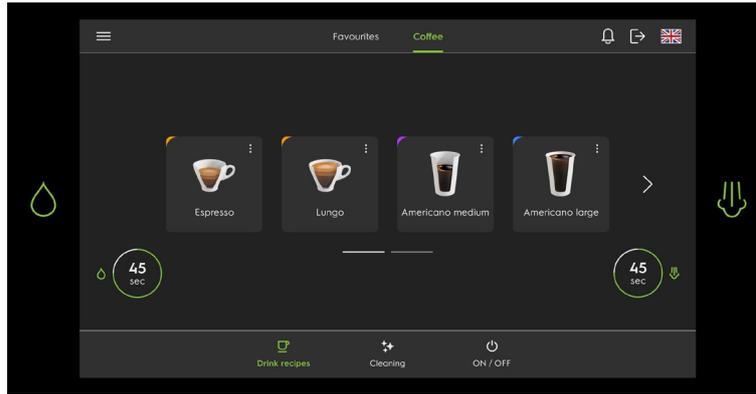


2- Main screen during the cycle  
A = the queue of drink launched  
B = icon to delete or stop the cycle



## ◆ Hot water & steam delivery

To deliver hot water or steam press the key wanted. the hot water it is time in second, steam it is time in second or for steamair option it is temperature animation.



### **Time animation:**

The green circle is completely filled at the start of the set countdown (max. 60 sec), then it moves anticlockwise until it disappears at 0.

### **Temperature animation:**

The green circle is completely empty at the beginning of the operation and it gets full in a clockwise motion when as it reaches the set temperature (max. 95°).

Reminder : Hot water and steam settings are located in the drawer menu > Global information > Temperatures. Only Technician and Owner have access to those settings.

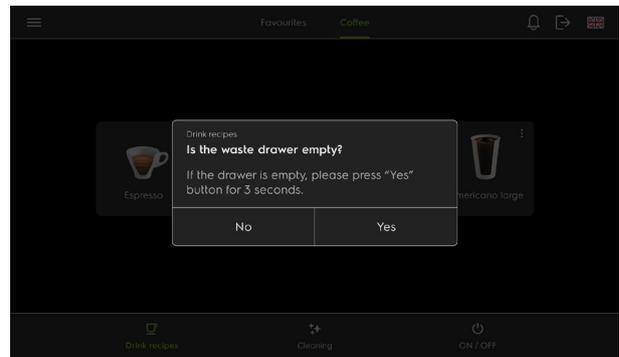
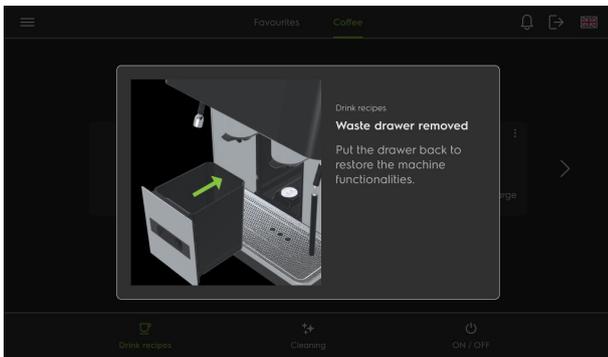
## ◆ Waste drawer

The capacity of the waste drawer is measured in number of coffee cakes that the machine ejects. The minimum is 1 and the maximum is 75.

Reminder : there is a third choice that is «infinite» : when the machine has the option direct waste drawer underneath the countertop.

1- Pop-up appears when the drawer is removal

2- If necessary empty the drawer. When he is in position in the machine, a pop-up appears, only if the drawer is empty press 3 seconds on YES.

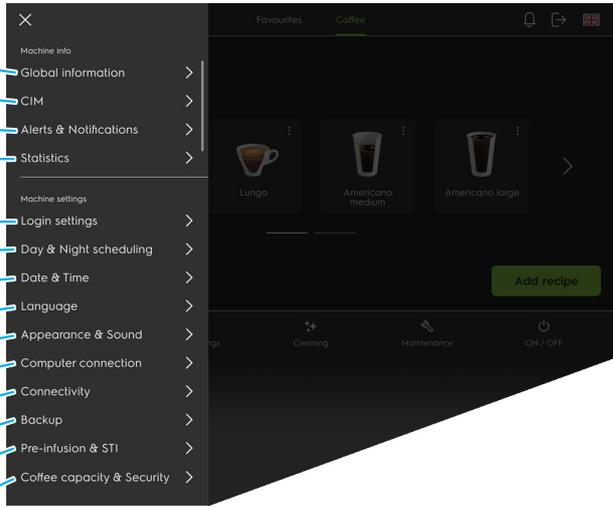


## ► Main menu

### ◆ Menu opening

Opening the menu by the icon on the left top on the screen. 2 categories appears in the rolling list, Machine info & Machine settings. See below the details of the different menus.

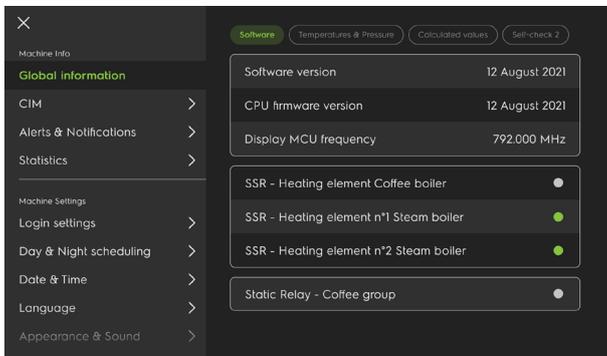
Global information, refer <a href="#">p.20</a>	Machine info	
CIM, refer <a href="#">p.21</a>	Global information	>
Alerts & Notifications, refer <a href="#">p.21</a>	CIM	>
Statistics, refer <a href="#">p.22</a>	Alerts & Notifications	>
	Statistics	>
	Machine settings	
Login settings, refer <a href="#">p.22</a>	Login settings	>
Day & Night scheduling, refer <a href="#">p.22</a>	Day & Night scheduling	>
Date & Time, refer <a href="#">p.23</a>	Date & Time	>
Language, refer <a href="#">p.23</a>	Language	>
Appearance & Sound, refer <a href="#">p.23</a>	Appearance & Sound	>
Computer connection, refer <a href="#">p.23</a>	Computer connection	>
Connectivity, refer <a href="#">p.23</a>	Connectivity	>
Backup, refer <a href="#">p.24</a>	Backup	>
Pre-infusion & STI, refer <a href="#">p.24</a>	Pre-infusion & STI	>
Coffee capacity & Security, refer <a href="#">p.25</a>	Coffee capacity & Security	>



### ◆ Global information

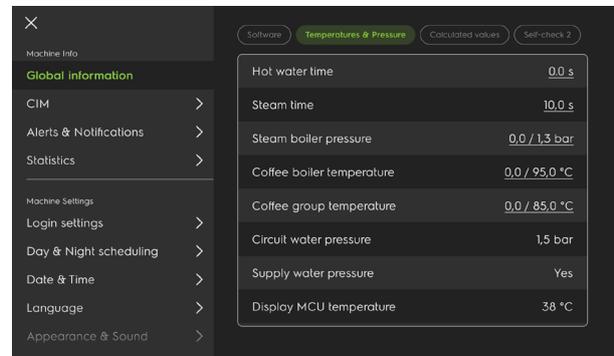
This sub menu allows you to check the complete information about the machine such as software, temperatures & pressure, calculated values and self check. Underlined values can be modify.

#### 1- Software



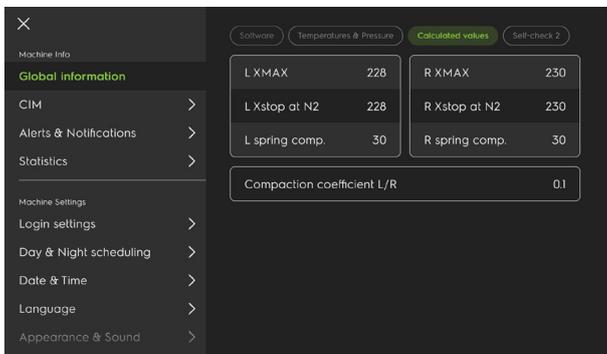
Item	Value
Software version	12 August 2021
CPU firmware version	12 August 2021
Display MCU frequency	792.000 MHz

#### 2- Temperature & pressure



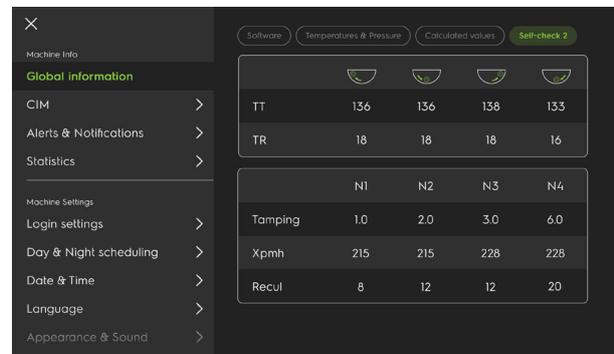
Item	Value
Hot water time	0.0 s
Steam time	10.0 s
Steam boiler pressure	0.0 / 1.3 bar
Coffee boiler temperature	0.0 / 95.0 °C
Coffee group temperature	0.0 / 85.0 °C
Circuit water pressure	1.5 bar
Supply water pressure	Yes
Display MCU temperature	38 °C

#### 3- Calculated values



Item	L Value	R Value
L XMAX	228	230
R XMAX		230
L Xstop at N2	228	230
R Xstop at N2		230
L spring comp.	30	30
R spring comp.		30
Compaction coefficient L/R	0.1	

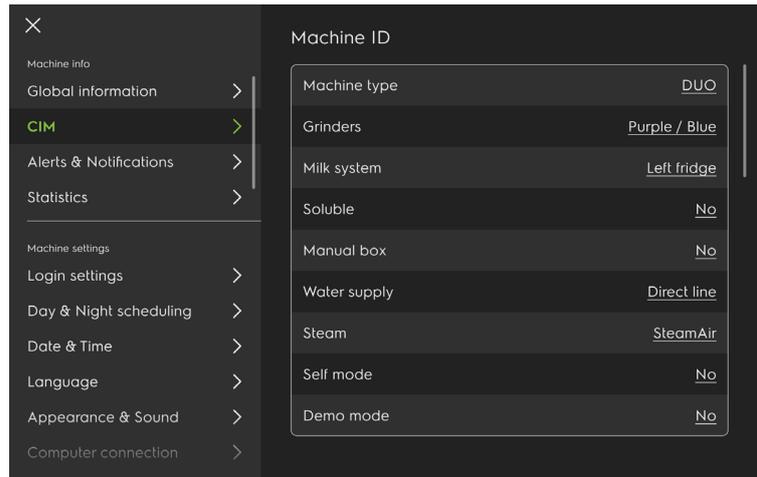
#### 4- Self check



Item	N1	N2	N3	N4
TT	136	136	138	133
TR	18	18	18	16
Tamping	1.0	2.0	3.0	6.0
Xpmh	215	215	228	228
Recul	8	12	12	20

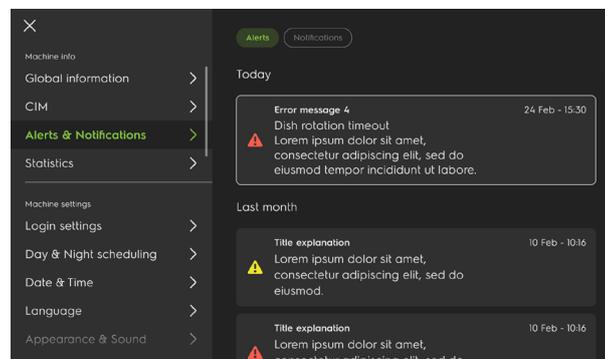
## ◆ CIM

Note : This values are interactive only for technicians profile.  
Underlined values can be modify.



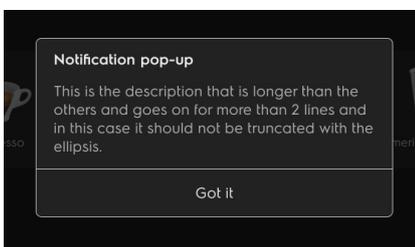
## ◆ Alerts & Notifications

This sub menu allows to view the historic of notifications & error messages.



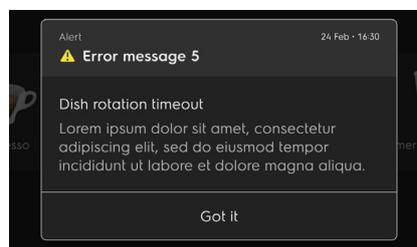
Notification pop-up :

Information pop-ups appear as soon as the problem is detected, regardless of what the user is doing.



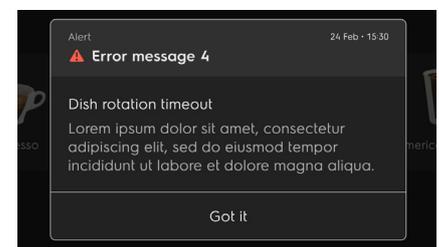
Error message, yellow :

The **yellow** alerts don't block the machine.  
The yellow icon stays on the top bar until the problem is solved.



Error message, red :

The **red** alerts block the machine, so even if you close the pop-up, most of the features remain unavailable/blocked.  
The red icon stays on the top bar until the problem is solved.



## ◆ Statistics

This sub menu allows to view the statistics of all the drinks produced by the machine. It is possible to reset the partial counters only (underlined values).

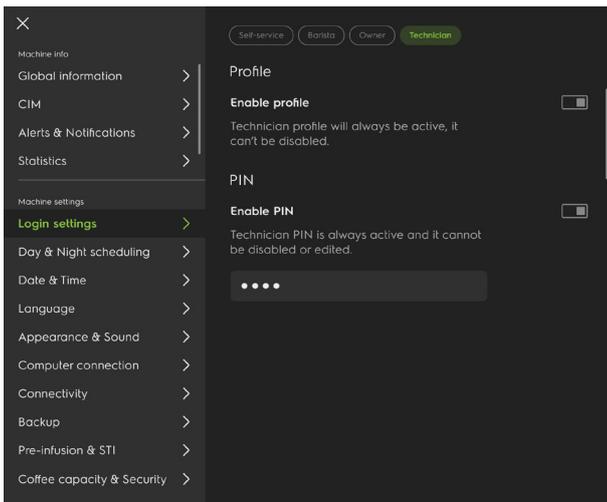
Coffee & Milk		Total	Partial
Dates since last reset		01 Jan 2022	15 Feb 2020
Amount of drinks delivered		897	<u>564</u>
☕ Macchiato		1234	244
☕ Café Creme		1234	112
☕ Cappuccino		1234	211
☕ Costa Café Creme		1234	34
☕ Cappuccino		1234	14
☕ Costa Café Creme		5432	56

## ◆ Login settings

This sub menu allows to enable or disable the different profiles (Self service / Barista / Owner / Technician), to change the code PIN of the different profiles.

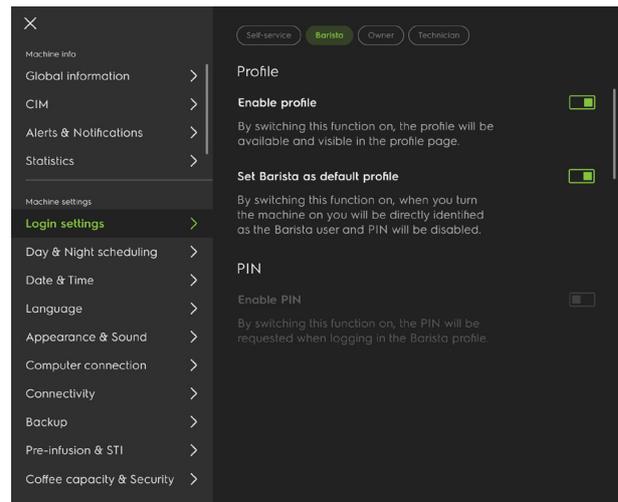
Note :

Technician profile is always active and its password cannot be disabled or edited. It cannot be set as the default profile.



Note :

Only barista has the direct login function.



## ◆ Day & Night scheduling

This sub menu allows to schedule the days and times of automatic switching to night mode (machine in standby, reduced heating temperatures), and day mode; may or may not be followed by an automatic cleaning cycle.

Note :

When Standby is enabled the regulation of the group and the coffee boiler goes to 70°C and 0.1 bar for the steam boiler, all screens are off, all safety functions remain activated.

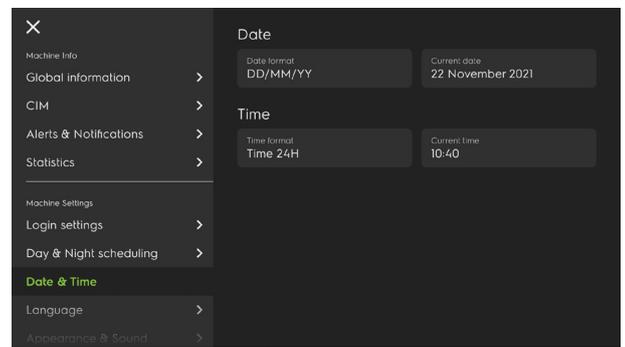
**Standby output** : resumption of the normal regulation is done 10 minutes before the exit from standby.

Timer	Power-on time	Standby time	Reset
Timer 1	6:00	12:00	Reset
Timer 2	14:00	16:00	Reset
Timer 3	19:00	23:30	Reset

Buttons: Reset day, Copy to all days

### ◆ **Date & Time**

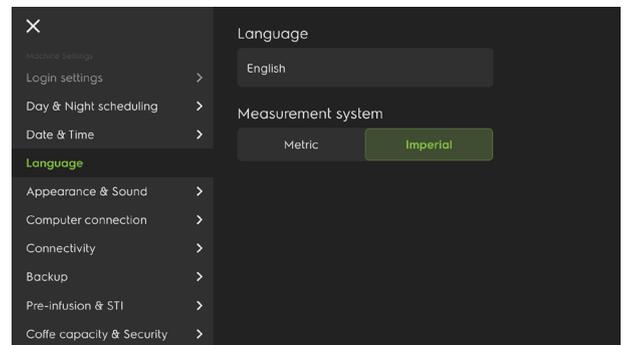
This submenu allows user to change the date, time and the time format of the machine.



### ◆ **Language**

This submenu allows user to change the language of the machine and the measurement of the system.

It is possible to change directly the language by the icon on the right top on the main screen.



### ◆ **Appearance & Sound**

WIP

### ◆ **Computer connection**

WIP

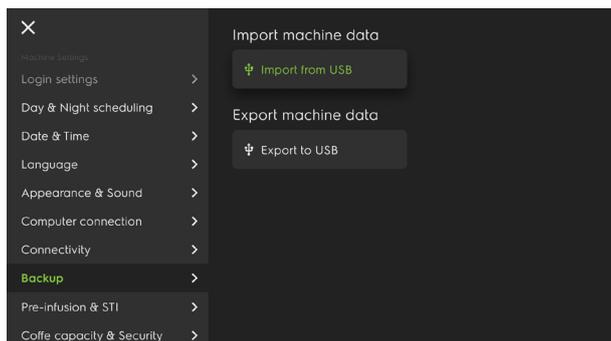
### ◆ **Connectivity**

WIP

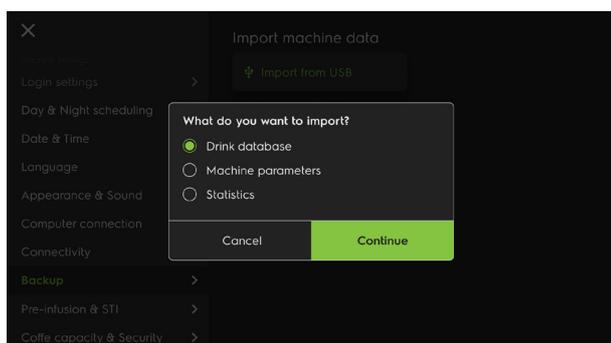
## ◆ Backup

This submenu allows importing and/or exporting keyboards, settings, databases, for configurations already created on a similar machine.

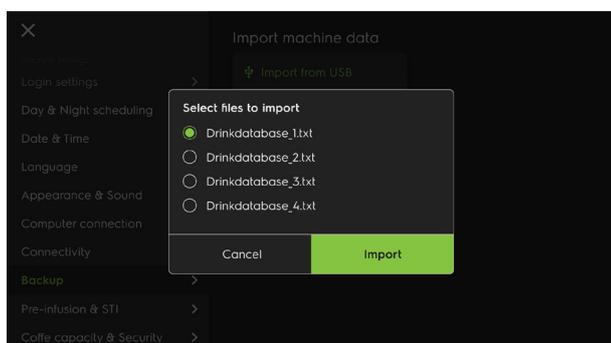
### Import, connect the USB key



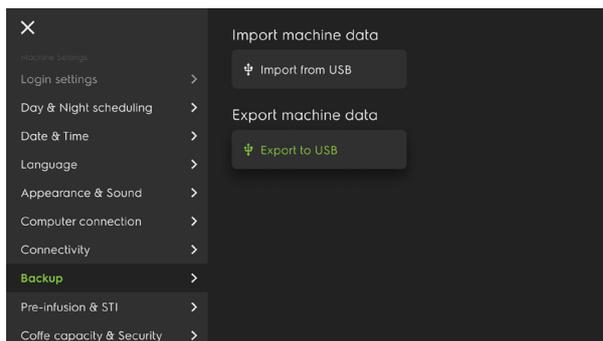
### Select the type of parameter to import from the list



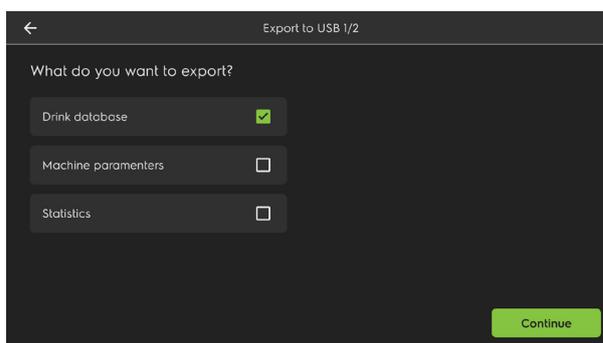
### Select the file to import from the list



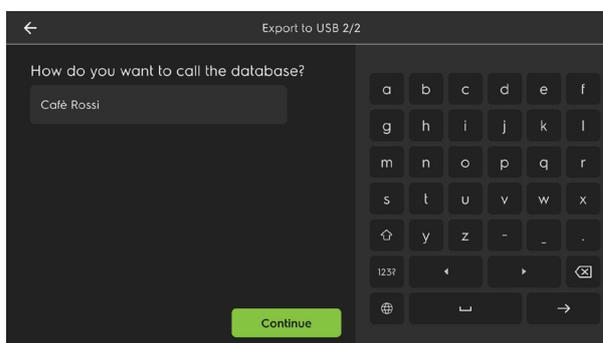
### Export, connect the USB key



### Select the type of parameter to export from the list



### Give a name of the export file and validate



## ◆ STI

This function is common to all “coffee” cycles. It permits adjusting when in the piston cycle the infusion starts, it is particularly effective for the “1 cup” cycles. The “1 cup” quality is therefore improved and more regular, therefore programming of all the “coffee” key settings can be done by the PP mode.

Settings for 1 or 2 cups are done separately.

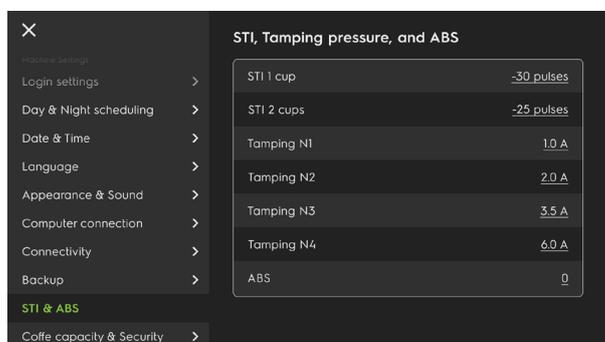
STI = 00 is the factory setting (ideal setting in 95% of cases) (00 setting includes a small amount of pre-infusion)

STI = +01 to +100: infusion starts later (less pre-infusion)

STI = -01 to -100: infusion starts earlier (more pre-infusion)

STI = > 60 cancels the effect of the STI.

*Note: Tapping on a value will open up a dialog with numeric input.*



### ◆ Tamping level

There are four tamping levels.

A number gives the intensity of the tamping force; the higher the number, the more force is applied.

Level	Setting range	Default value
1	0,6 to 1,4	1
2	1,5 to 2,5	2,0
3	2,6 to 4,0	3,5
4	4,1 to 6,5	6,0

When exiting this setting, the machine automatically carries out self-check phases 1 and 2 to recalculate the piston parameters generated by the new tamping values.

In general:

A small dose of ground coffee infused by a small quantity of water needs heavy tamping: Level 4

A large dose of ground coffee infused by a larger quantity of water needs light tamping: Level 1.

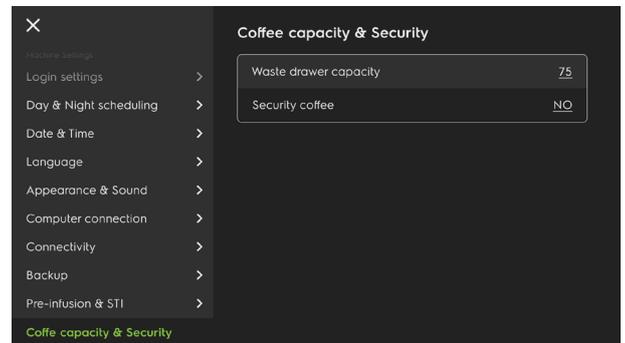
### ◆ Coffee capacity & security

This menu allows user edit the value of the waste drawer capacity and the presence sensor of the bins in the hopper.

The capacity is measured in number of coffee cakes that the machine ejects. The minimum is 1 and the maximum is 75. There is a third choice that is «infinite»: when the machine has a direct waste drawer underneath the countertop.

**WARNING : use the infinite capacity only with the direct drain configuration installed in the machine.**

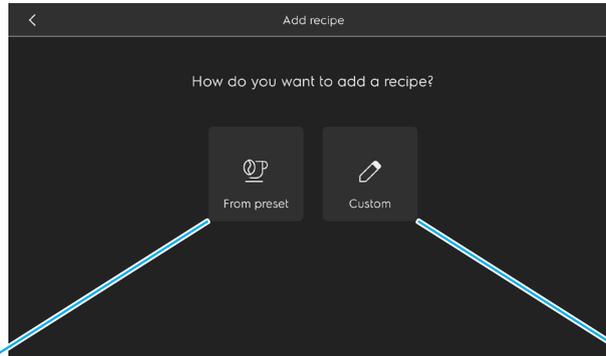
**Security coffee** = presence sensor of the bins in the hopper.



## ► Drink recipes

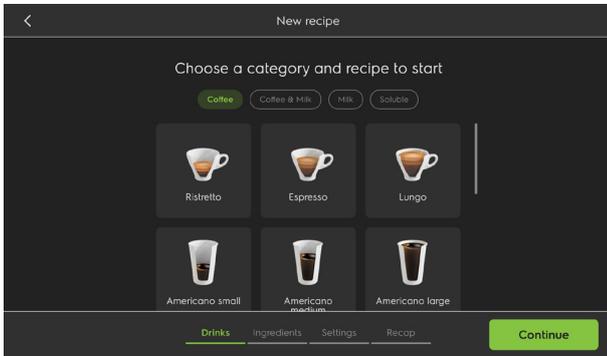
### ◆ Add recipe : Europe

Select Add recipe (Preset or Custom) on the main screen,  
It is a creation in 4 steps 1-Drinks / 2-Ingredients / 3-Settings / 4-Recap

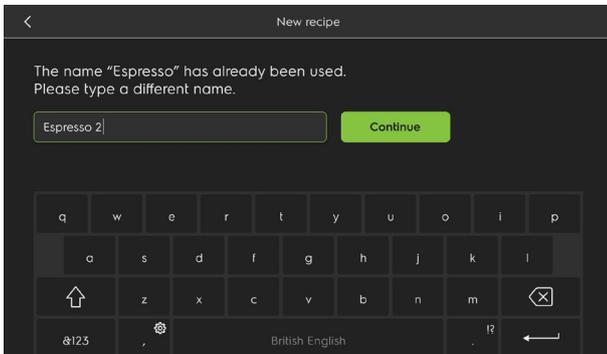


#### From preset

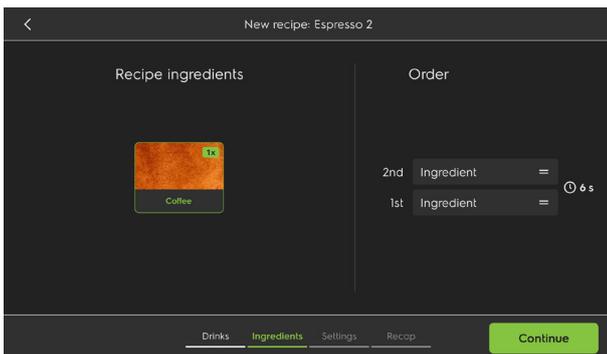
1- Choose a base of recipe for the new drink



2- Name the recipe

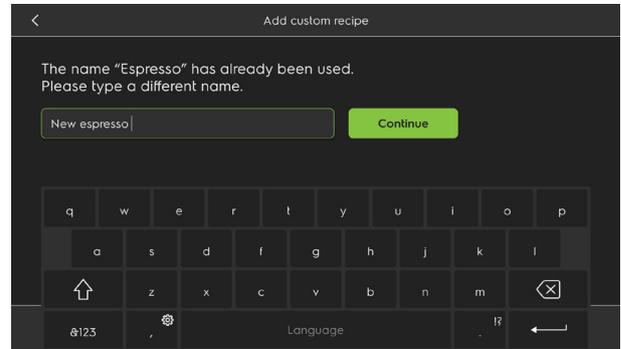


3- Drag the ingredient on the right in the order wanted and also the intervals between ingredients.

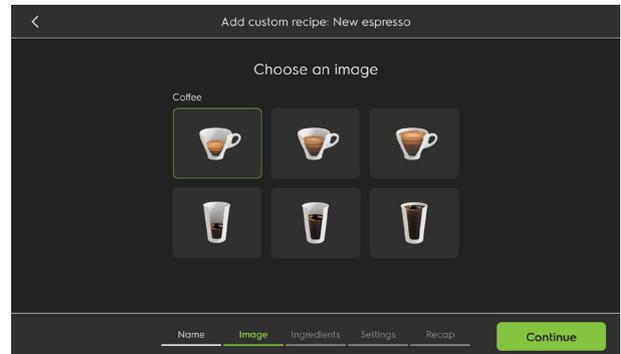


#### From Custom

1- Name the new recipe



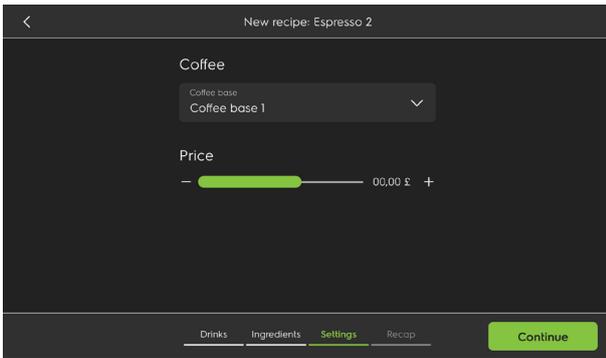
2- Choose the image of the new recipe



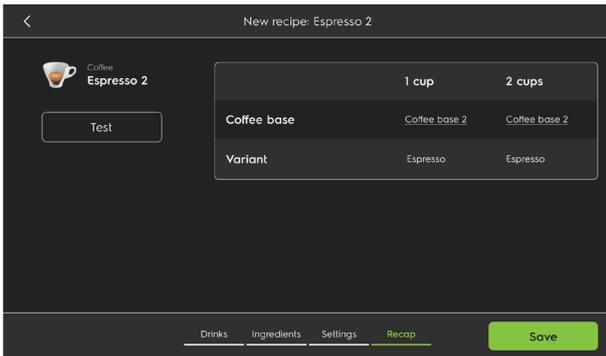
3- Drag the ingredient on the right in the order wanted and also the intervals between ingredients. Maximum of ingredient 5. "Delete" icon appears while long pressing, drag it on the icon.



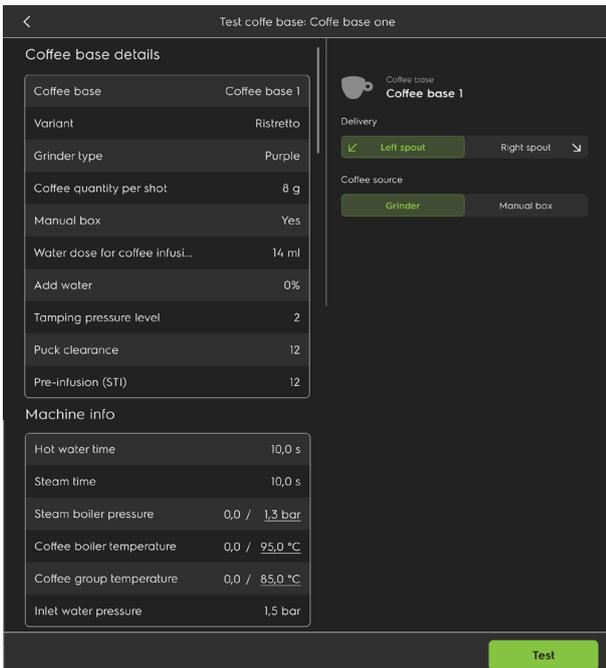
4- Choose the base where the recipe will be save and the price of the recipe.



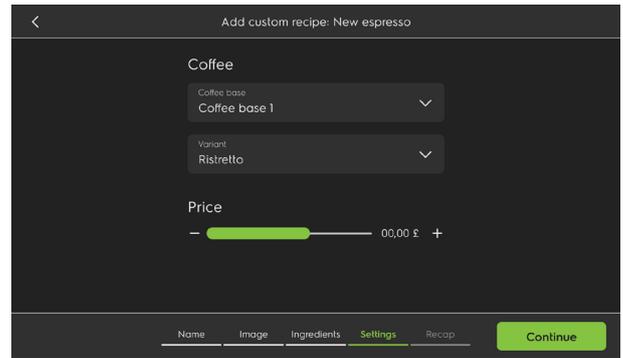
5- Recap of the recipe.  
Underlined values can be modify.



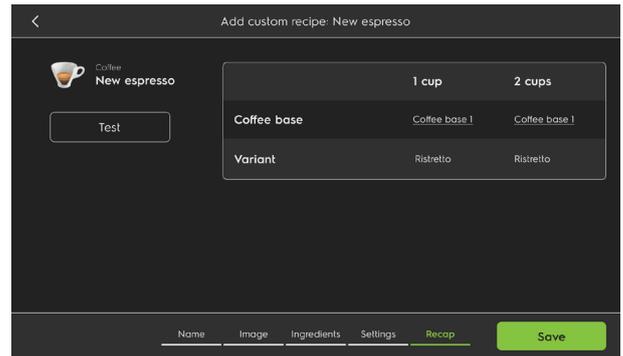
6- It is possible to see/modify the details and test the drink. After the test save the recipe.



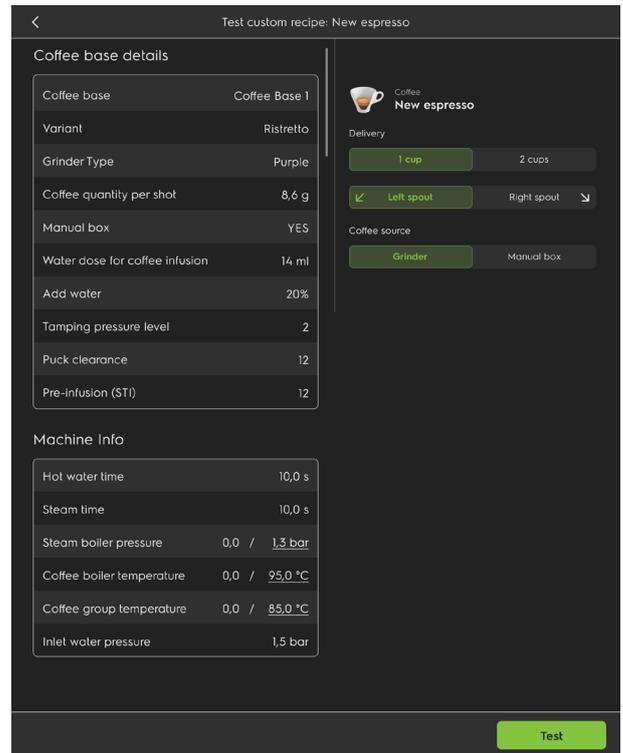
4- Choose the base where the recipe will be save the variant and the price of the recipe.



5- Recap of the recipe.  
Underlined values can be modify.



6- It is possible to see/modify the details and test the drink. After the test save the recipe.

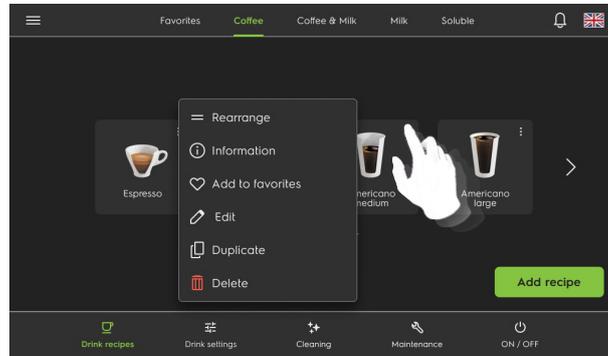


## ► Recipe shortcuts

Tap on the 3 little points on the top right of the drink to see the different shortcuts available.

Choose the action to apply :

- 1- Rearrange
- 2- Information
- 3- Add to favorites
- 4- Edit
- 5- Duplicate
- 6- Delete



## ► Drink Settings

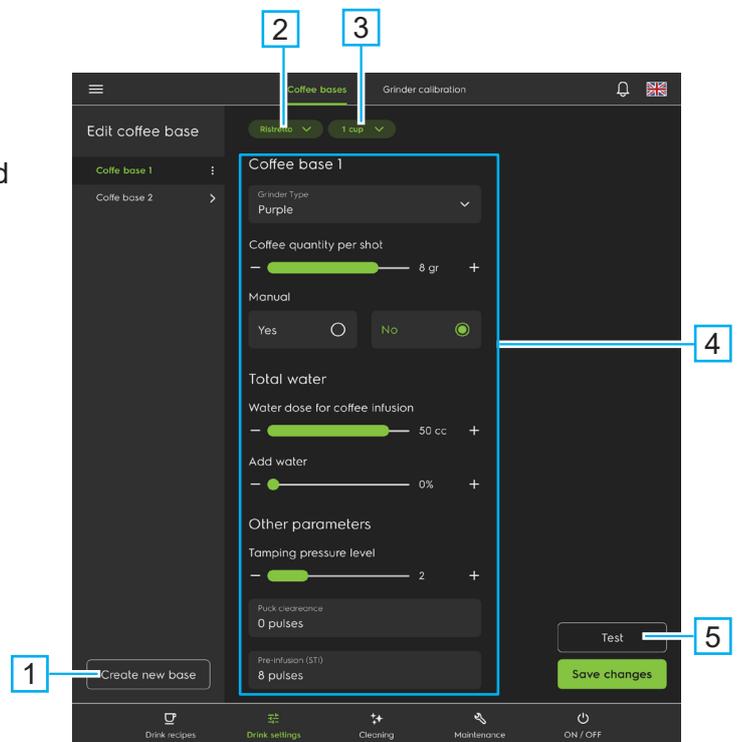
This submenu allows user to setup the needed coffee for one drink from the machine.

### ◆ Coffee base

Coffee base setting up for European countries. This allows user to edit or create or adjust coffee base in the software.

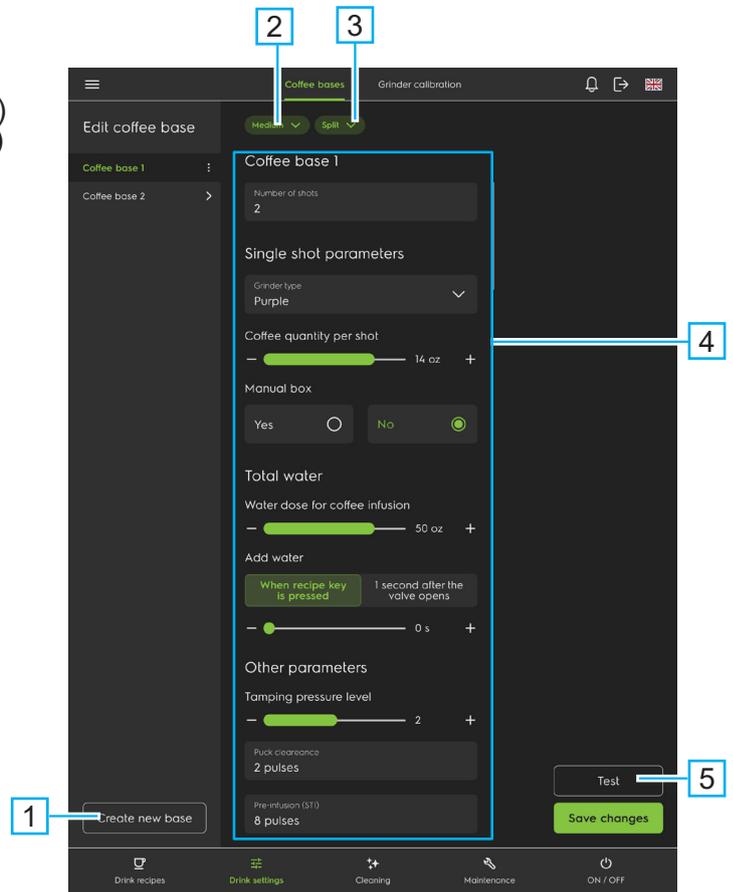
### Coffee base: Europe

1. Icon to create new base
2. Rolling list of recipes
3. Rolling list of numbers of cup(s) (1 or 2)
4. Settings for the base by type of recipe and number of cup(s) chosen before :
  - Type of grinder
  - Quantity of coffee per recipe (gr)
  - Using of manual box
  - Quantity of water per recipe (cc)
  - Additionnal water per recipe (%)
  - Tamping pressure (pulse)
5. Icon to test the settings.



## Coffee base: US

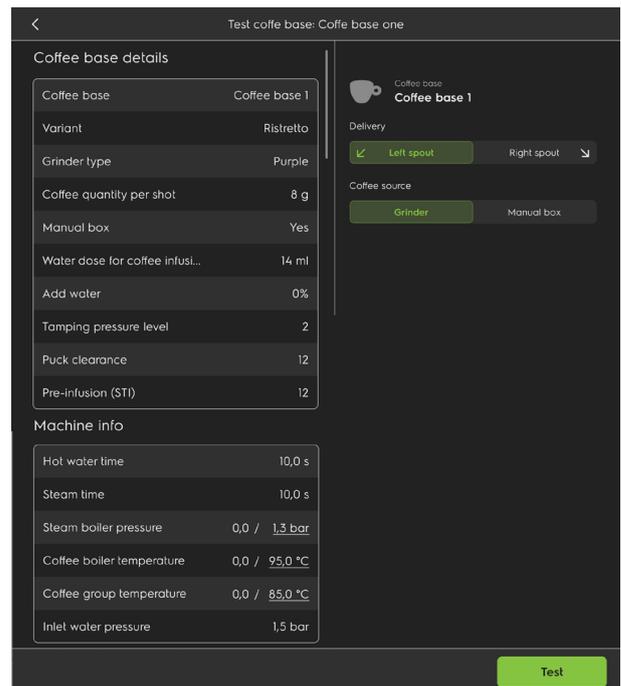
1. Icon to create new base
2. Rolling list of volumes (small / medium / large)
3. Rolling list of robustness (split / regular / bold)
4. Settings for the base :
  - Numbers of shot(s)
  - Type of grinder
  - Quantity of coffee per recipe (oz)
  - Using of manual box
  - Quantity of water per recipe (oz)
  - Additionnal water per recipe (s)
  - Tamping pressure (pulse)
5. Icon to test the settings.



Test icon :

It is possible to see/modify the details and test the drink.

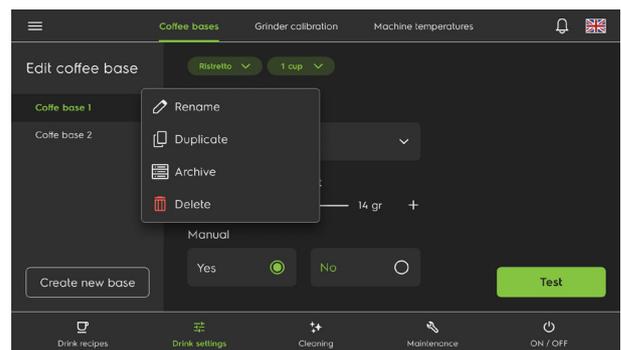
After the test save the recipe.



On the right side of the title of the base, tap on the 3 little points to see the different shortcuts available.

Choose the action to apply :

1. Rename
2. Duplicate
3. Archive
4. Delete



## ► Grinder calibration

The type of coffee used and the grinder collar setting will affect the ground coffee dose. This procedure calibrates the actual ground coffee weight dispensed to match the value in the programmed settings. Select the desired grinder, prepare the weighing kit and the scale, and then follow the procedure on the screen.

Kit Calibration :

54204 Plastic box  
NA2022 Weighing kit support

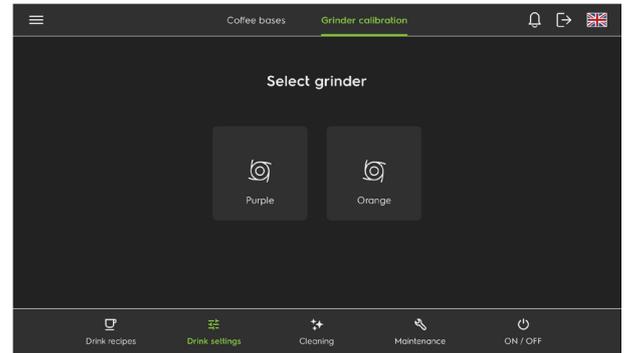
This procedure is done in 2 steps:

### Step1: Grinder Tuning (Grinder collar adjustment)

A test cycle displays the time of the extraction in seconds.  
Test cycle: 2 cups of 50 cl. using about 14 grams of ground coffee. The test cycle infusion time is displayed at the end of the cycle.

### Step2: Grinder dose Calibration

2 grind cycles, one short and one longer, are weighed and recorded. The resulting time needed per gram is automatically calculated and applied to the programming to produce an accurate weight for each dose.



## • CLEANING

Factory code	Code	Description FR	Description EN
26124	0UNBZO	Écouvillon	Swab
92017	0UN222	Brosse de nettoyage	Cleaning brush
0SPO27	0SPO27	U01 Pastilles de nettoyage	Cleaning box
0SPO29	0SPO29	U03 Détergent système lait 1L	U03 milk frother cleaner 1lt
54212	0UN220	Pichet 2 L gradué	JUG 2000 ML gradual

## ► Cleaning external outlets / housing

It is advisable to disassemble the coffee and milk outlets daily for thorough cleaning.

### ◆ Coffee outlet

1. Pulled down the removable part of the spout(s).
2. Clean the spout(s) under a tap or directly in a dishwasher.
3. Replace the spout(s) on the machine.

### ◆ Steam wand

After every use, clean the steam tube with a damp cloth and press the steam key briefly to drive out the small amount of liquid (e.g.: milk) remaining in the tube. Remove the tip of the steam nozzle to clean it more easily.

### ◆ Basin grille

Remove the basin grille by lifting it up from the front. Clean the basin with a sponge.

### ◆ Drip tray

Remove the drip tray by sliding the frame forward and lifting the grate out. Plastic tray cleaning will be done using dishwasher. Because of milk presence clean it regularly.

### ◆ Bodywork

Use a soft cloth and alcohol for the stainless steel parts, and non-abrasive detergent for the painted parts. Take care not to scratch the painted parts.

### ◆ Waste drawer

Clean regularly and carefully the waste drawer with clear water.

### ◆ Hoppers

Clean regularly and carefully the hoppers with clear water.

### ◆ Screen

Disinfectand clean regularly the screen with soft cloth.

## ► Cleaning Cycles

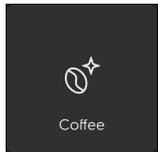
Daily cleaning is required; the machine will stop after 26 hours if a tablet cleaning has not been completed. As soon as the cleaning is finished, the timer restarts for another 26 hours. Machine temporarily out of use during the cleaning processes.

*Note: for more information about cleaning products, refer to the manufacturer's safety data sheet.*

### IMPORTANT :

To start the cleaning process, imperatively start by enter in the cleaning menu (middle bottom on the screen), select coffee or milk cleaning sub-menu and then follow the procedure step by step on the screen.

**Do not start to remove the drawer or insert the tablet(s) before the instruction from the screen.**

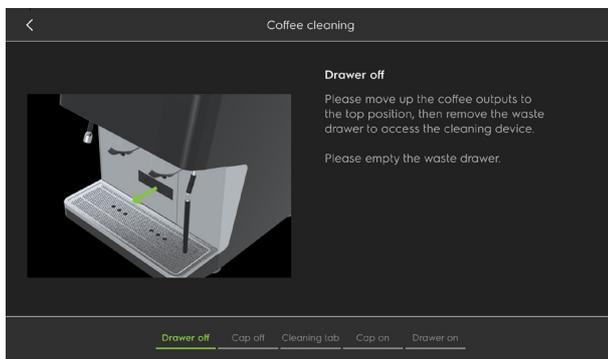


### ◆ Coffee cleaning

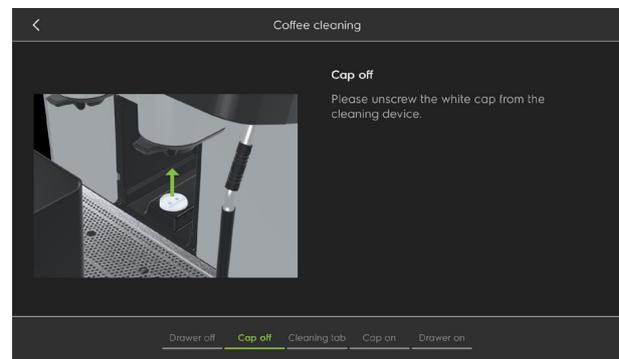
Tap the "Coffee" cleaning icon to access the procedure and follow it step-by-step, information on the screen.

**DON'T FORGET TO INSERT TABLET(S)**  
SOLO 1 tablet, DUO 2 tablets.  
reference, box of tablets: **OSPO27**

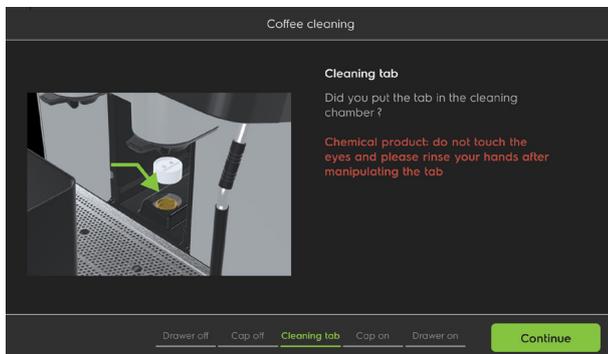
#### 1- Drawer off



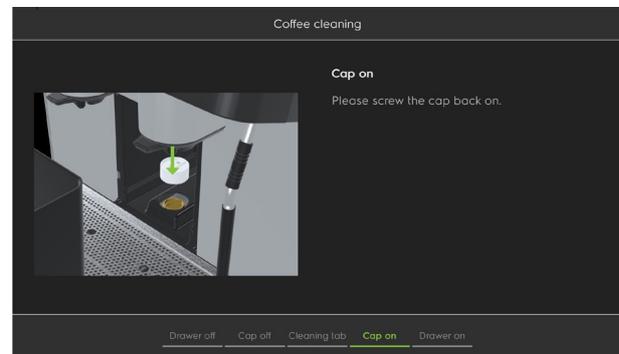
#### 2- Cap off



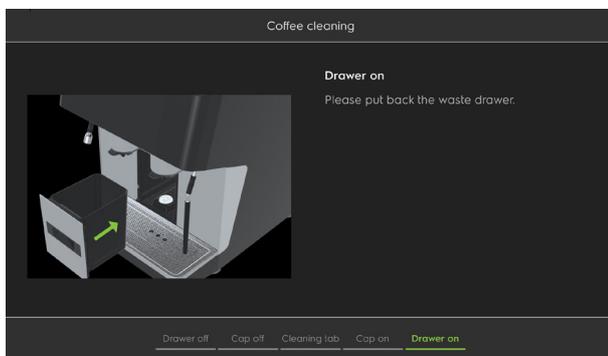
#### 3- Cleaning tab, **don't forget to insert tablet(s)**



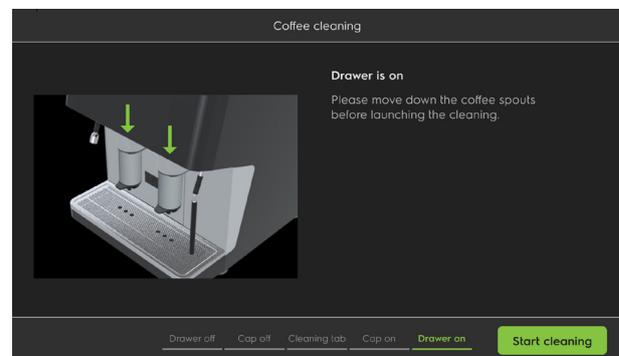
#### 4- Cap on



#### 5- Drawer on



#### 6- Drawer is on, **START THE CLEANING**



Cleaning details:  
2 minute > soak  
6 minute > wash  
3 minute > rinse



### ◆ Milk cleaning

This includes internal cleaning of the circuit and external components related to the circuit, such as the milk tray and spout. Use a pitcher of about 2 liters for cleaning.

Detergent part number **0SPO29**

Jug part number **54212**

Swab number **26124**

Please move down the coffee spouts before launching the cleaning.

#### 1- Coffee output

Take off the removable coffee output, clean with Swab (ref : 26124) and rinse the coffee output with clear water (10°C mini-30°C maxi) and put it back in place.

#### 2- Milk pitcher off

Take off the milk container, clean inside the fridge and the suction tube with a clean cloth.



#### 3- Pitcher cleaning

Put the pitcher (ref : 54212) inside the fridge with 1 liter of clear water (10°C mini-30°C maxi) and use the integrated dispenser for one dose (50 ml) of detergent bottle (ref : 0SPO29), put the tube inside the pitcher.

#### 4- Pitcher rinsing

Take off the pitcher, rinse the cleaning pitcher and fill it with 1 liter of clean water (10°C mini-30°C maxi). Put it back inside the fridge with the suction tube inside.



Please remove the pitcher and put back the milk container in the fridge, **Cleaning completed.**

## • MAINTENANCE & TROUBLESHOOTING

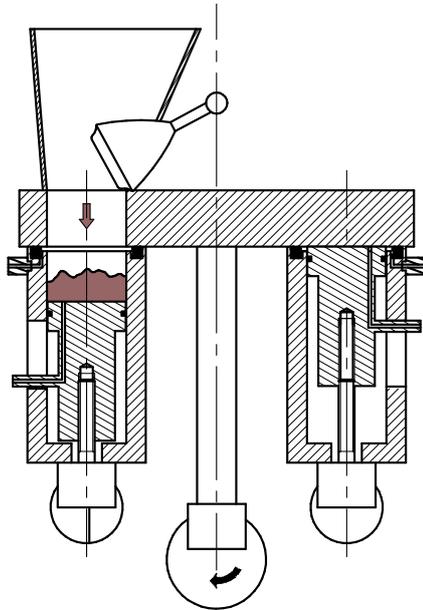
### ► Introduction

Sound pressure emission does not exceed 70 dB (A)

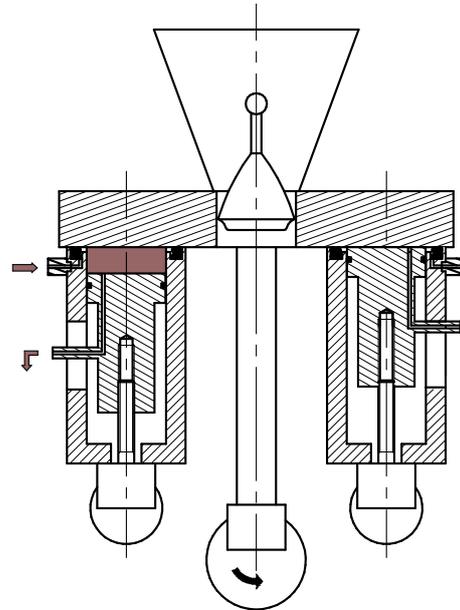
The appliance is used for coffee, the coffee bean not need special or particular temperature and duration of storage and the safety of the coffee bean do not depend upon the temperature of the appliance.

Reminder list of tools refer [p. 8](#).

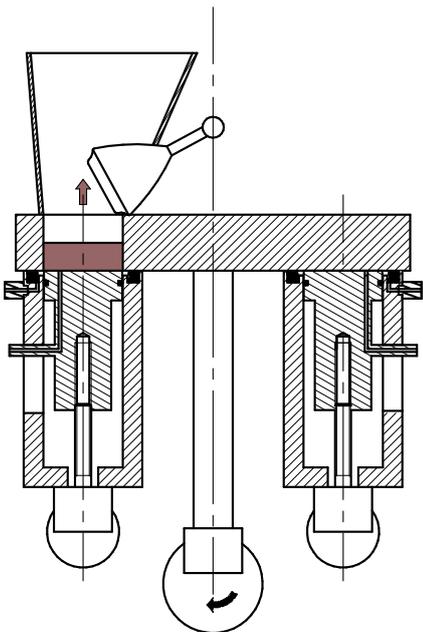
#### ◆ 2 groups Cycles



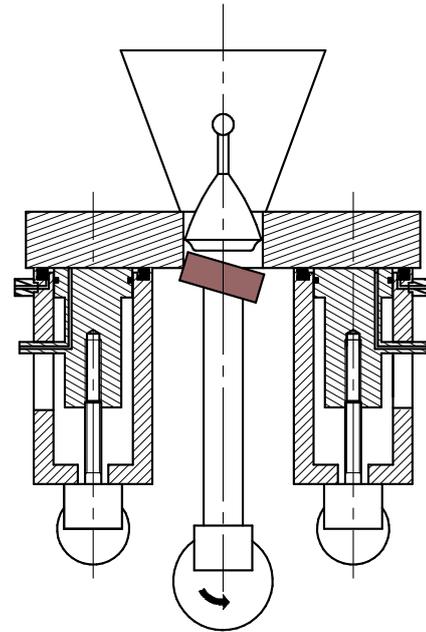
**CHARGEMENT CAFE**  
*COFFEE FEEDING*



**INFUSION**  
*INFUSION*



**EJECTION DU MARC**  
*EJECTION OF GROUT*



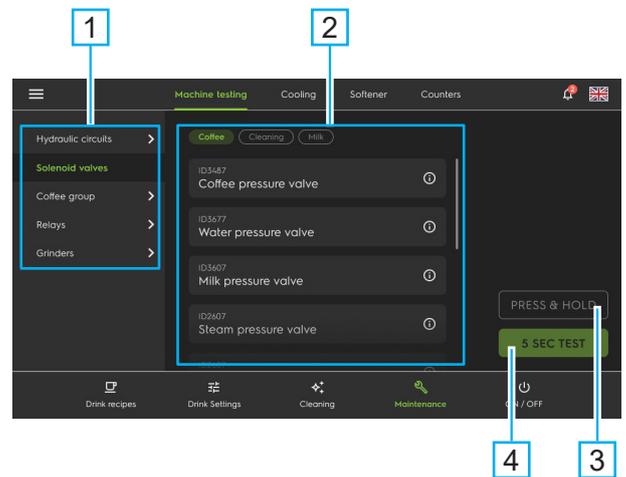
**ETAT REPOS**  
*STAND BY*

## ► Machine testing

When entering the menu the machine switches to the "test" mode, the group and steam heating are disabled.

1. Family of components
2. List of components
3. To test the component, Press = test, release = stop
4. To test the component, Press = 5 sec automatic test

*Note: Self-checks 1 and 2 are carried out after having left the test menu, and then the machine goes into normal operation.*



	Piston LEFT up
	Piston LEFT down
	Piston RIGHT up
	Piston RIGHT down
	Plateau to LEFT position
	Plateau to CENTER position
	Plateau to RIGHT position
	Find known plateau position
RSV1	Solid state relay steam 1
RSV2	Solid state relay steam 2
RSV3	Solid state relay steam 3
RSC1	Solid state relay coffee 1
RSC2	Solid state relay coffee 2
RSC3	Solid state relay coffee 3
MAC1	Grinder n°1 (purple)
MAC2	Grinder n°2 (green)
MAC3	Grinder n°3 (orange)
POMP	Motor pump
CHGR	Heating group
EAMAN	Electromagnet of DK door
EVRE	EV filling
EVSE	EV hot water outlet
EVSU	EV steam outlet
EVNK	EV coffee cleaning

EVKG	EV left coffee
EVP1	EV pre infusion 1
EVLFCF	Hot-cold milk selection
EVNR	EV steam/EV cleaning-rinsing
EVNO	EV bloc de nettoyage
EVALF1	EV cold milk air
EVNL1	EV cleaning milk
EVALC1	EV hot milk air
EVLG_EVVS	EV left LC latte outlet/EV coil pipe steam
EVAEG	EV water addition left coffee
EVCG_EVRP	EV left LC cappu outlet/EV rinsing purge
EVNC	EV cleaning cappuccino
EVKD_EVM1	EV right coffee/EV mixer 1
EVAED_EVM2	EV water addition right coffee/EV mixer 2
EVCD	EV right LC cappu outlet
EVLDC	EV right LC latte outlet
EVP2	EV pre infusion 2
MM1	Motor mixer 1
MM2	Motor mixer 2
MT1	Motor hopper 1
MT2	Motor hopper 2
FAN_SOL	Fan for soluble MT
MPOMP	milk pump

## ► Cooling

The temperatures (and pressure) showcased here are the current reading of the machine, thus the numbers will update in real time.

It is not possible to cool down the coffee boiler without cooling the coffee group and viceversa. Therefore there is only one button for the two items.

Select the boiler to be cooled down and then press the 'cooling' key.



## ► Opening of the front panel

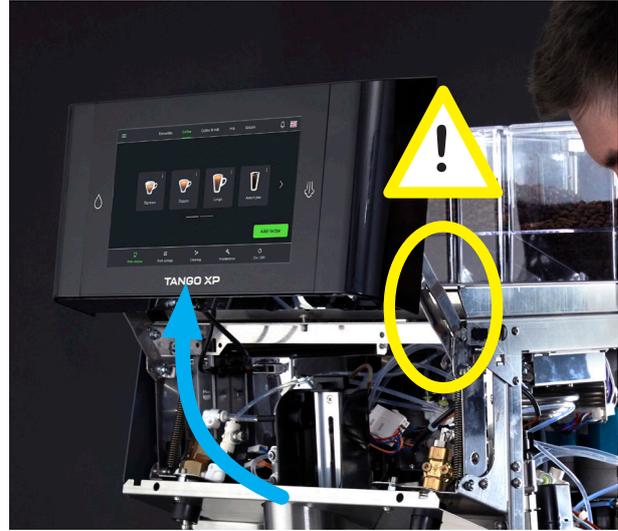
1- Unscrew the screw with cruciform screwdriver

*Note : the appliance can continue to work with the front panel up.*



2- lift the front panel

**Warning ! on the both sides of arms, not block your fingers, risk of injury.**

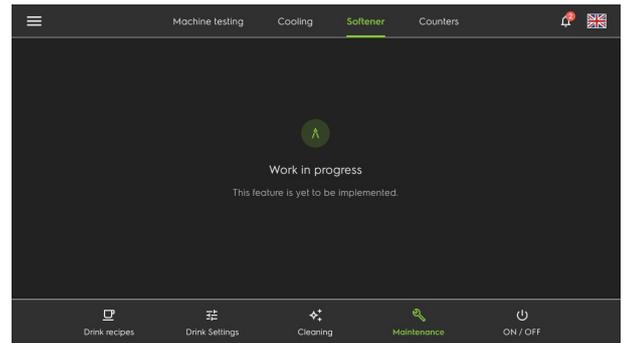


## ► Softener

Unic / Electrolux Professional, uses two softener suppliers. BRITA® and BESTMAX™

Have the hardness of the water tested in the mains, and then refer to the technical documentation of the softener used to find the best settings.

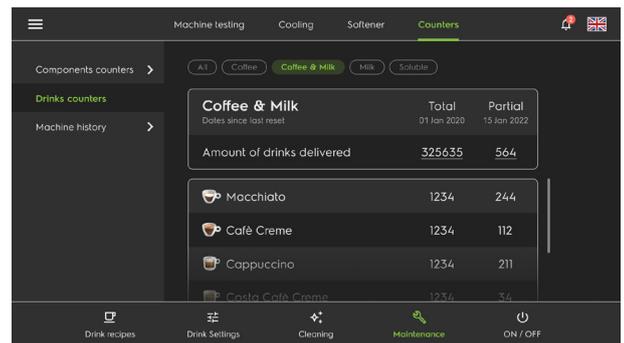
*Note: a softener must be changed every year, even if it does not reach the end of its filtering capacity.*



## ► Technician counters

This submenu allows to see/modify the counters of components, drinks and machine history.

*Note : for the bar owner corresponding flow, check out the statistics flow in the nav drawer. There it possible to reset only the partial counters. If the technician resets a value here, the bar owner will have a 0 in his statistics page. Underlined values can be modify.*



## ► Descaling

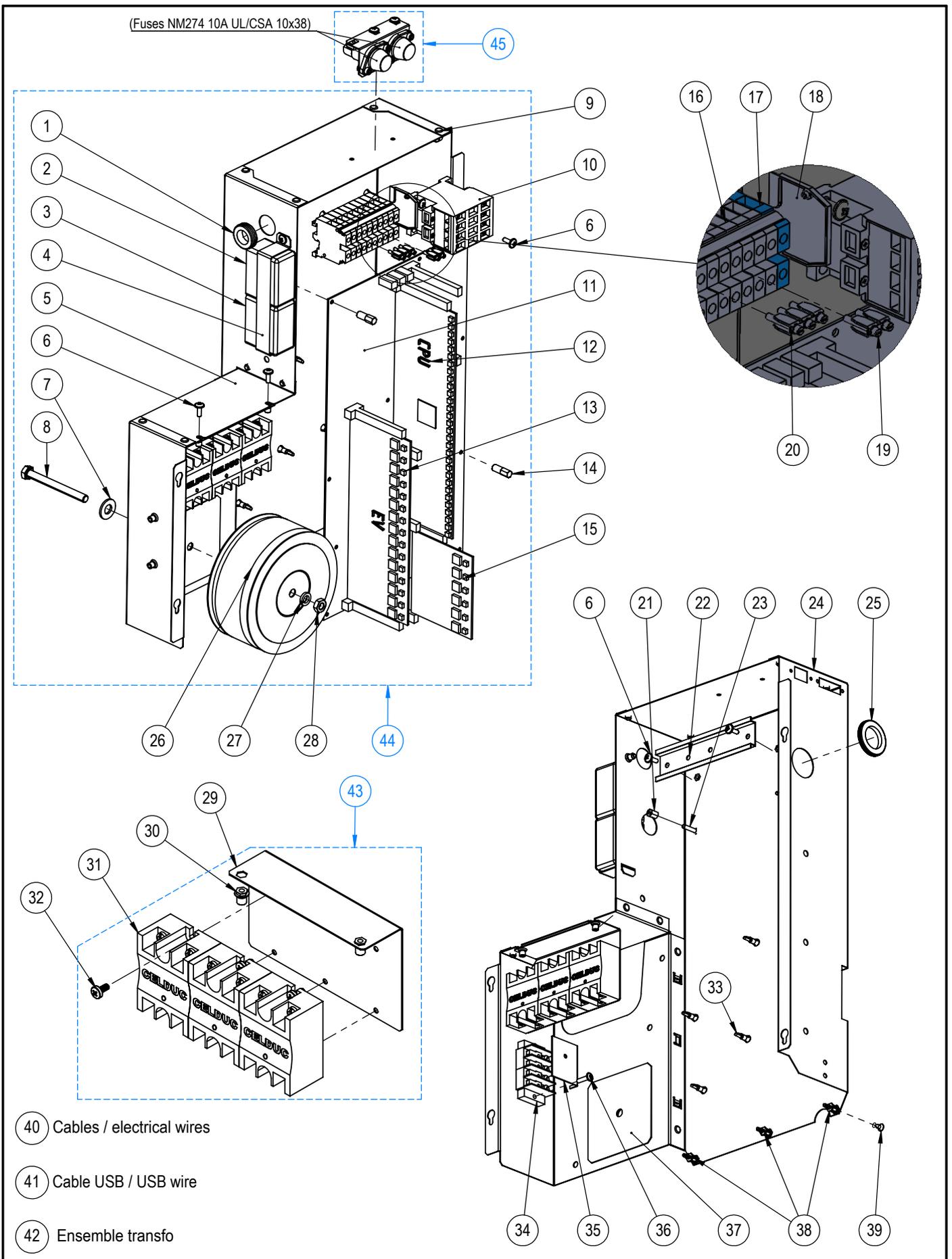
The machine should be descaled only by a qualified technician.

**PLANCHE - PLATE 520**

Pos.	Fact. code	Code	Description FR	Description GB	V	W&T	REF.	NOTES	S/N BREAK
1	ED72		PASSE-FIL CAOUTCHOUC 16/22/27	GROMMET					
2	44725		FILTRE CEM 16A 250V/440V 50/60Hz	EMC FILTER FA. 20.004-16A					
3	44727		FILTRE CEM 250V 50/60Hz	EMC FILTER 250V 50/60Hz					
4	NA2031		TOLE SUPPORT FILTRE EMC	EMC FILTER HOLDER					
5	NA2009		TOLE FERMETURE POUR HYBRIDE	CLOSING SHEET FOR HYBRID					
6	50126	0UN615	VIS TB CRUCIFORME A EMBASE M4 x 12	CRUCIFORM SCREW M4 x 12					
7	CH62	0UN835	RONDELLE ACIER ZINGUEE DE 10	WASHER					
8	50420		VIS TH M8 X 70 ZN	SCREW M8 X 70 ZN					
9	52008		RIVET INOX Ø4	SNAP RIVET STAINLESS STEEL					
10	43800	0UN087	CONTACTEUR TETRA. 220V 25A 50HZ	CONTACTOR 220V 25A 50Hz			a;b;c;d;e;f;g;h;i;j;k;l;m;n;o;p;q; r;s;t;u;v;w;x; y;za1;b1;c1		
10	43801	0UN578	CONTACTEUR TETRA. 200V 60HZ	CONTACTOR 200V 60HZ			g;h;l;m;n;o;p;q		
11	45387	0UNDG8	CARTE ELECTRONIQUE MERE LIGHT	ELECTRONIC MAINBOARD LIGHT					
12	45381	0UN094	CARTE CPU	CPU CARD					
13	45382	0UN098	CARTE DRIVER EV	ELECTROVALVE DRIVER CARD					
14	51053	0UN924	ECROU LONG M4	LONG NUT M4					
15	45384	0UN084	CARTE MODULE 2EME PISTON	MODULE CARD 2ND PISTON			a;b;c;d;g;h;j;k;l;m;x;y;za1; b1;c1		
16	AE50	0UN833	BORNIER GM GRIS	TERMINAL BLOCK GREY					
17	AE51	0UN762	BORNIER GM BLEU	TERMINAL BLOCK BLUE					
18	41422	0UN602	FLASQUE D'EXTREMITÉ	FLANGE TERMINAL BLOCK					
19	CN628	0UN766	BARETTE DE JONCTION 2 PLOTS	2 STUDS STRIP					
20	CN630	0UN644	BARETTE DE JONCTION 3 PLOTS	3 STUDS STRIP					
21	CN651	0UN940	ENTRETOISE COURTE DU C.I.	SHORT SPACER FRAME					
22	FR2013	0UNE51	RAIL	RAIL					
23	CN124	0UNA1R	VIS INOX TF 4 x 20	SCREW M4 X 20					
24	NA2008		TOLE ELECTRONIQUE HYBRIDE	HYBRID ELECTRONIC SHEET					
25	42003	0UNDBY	PASSE FIL Ø38	GROMMET Ø38					
26	44200	0UN360	TRANSFO TOROIDAL 540 Va / 200-230-240-22-19V	TRANSFORMER 540Va / 200-230-240-22-19V					
27	RR83	0UN592	RONDELLE GROVER DE 8	WASHER 8					
28	PE12	0UN430	ECROU M8	NUT M8					
29	NA2010		TOLE SUPPORT RELAIS STATIQUES	STATIC RELAY SUPPORT SHEET					
30	51065		ECROU A SERTIR M4 INOX	NUT TO CRIMP M4 STAINLESS STEEL					
31	44410	0UN169	RELAIS STATIQUE 25A	SOLID STATE RELAY 25A					
32	50103	0UNDK0	VIS AUTOFORMEUSE TC M4 X 12	SCREW M4 X 12					
33	42400	0UN312	ENTRETOISE PLASTIQUE FIX CARTE	PLASTIC PCB SUPPORT					
34	41402		BARRETTE 4 POLES	TERMINAL BOARD					
35	41403		PROTECTION 4 POLES	COVER					
36	CN489E	0UNBLN	VIS INOX CHC 4 x 16 A EMBASE	SCREW M4 X 16 WITH BASE					
37	NA2011		TOLE SUPPORT TRANSFO	TRANSFO SUPPORT SHEET					
38	42403		ENTRETOISE PLASTIQUE FIX CARTE	PLASTIC PCB SUPPORT					
39	50706	0UNDLF	VIS PARKER N6 9.5 SP CRUCIF.	PARKER SCREW					
40	NA8001		FAISCEAU ELECTRIQUE 1GR	WIRING HARNESS 1GR			e;f;i;n;o;p;q;r;s;t;u;v;w		
40	NA8002		FAISCEAU ELECTRIQUE 2GR	WIRING HARNESS 2GR			a;b;c;d;g;h;j;k;l;m;x;y;za1; b1;c1		
41	NA8008		CABLE USB A F-F	USB WIRE					
42	NA1043		ASM TRANSFO	COMPLETE TRANSFO					
43	NA1044		ASM RELAIS STATIQUES	COMPLETE STATIC RELAY					
44	NA1013		BOITE ELECTRONIQUE NEXT GEN	ELECTRONIC BOX					
45	TG1043		ENSEMBLE PORTE FUSIBLE UL	FUSES			g;h;l;m;n;o;p;q		

In the appendix, the detailed plans of the electrical harnesses :

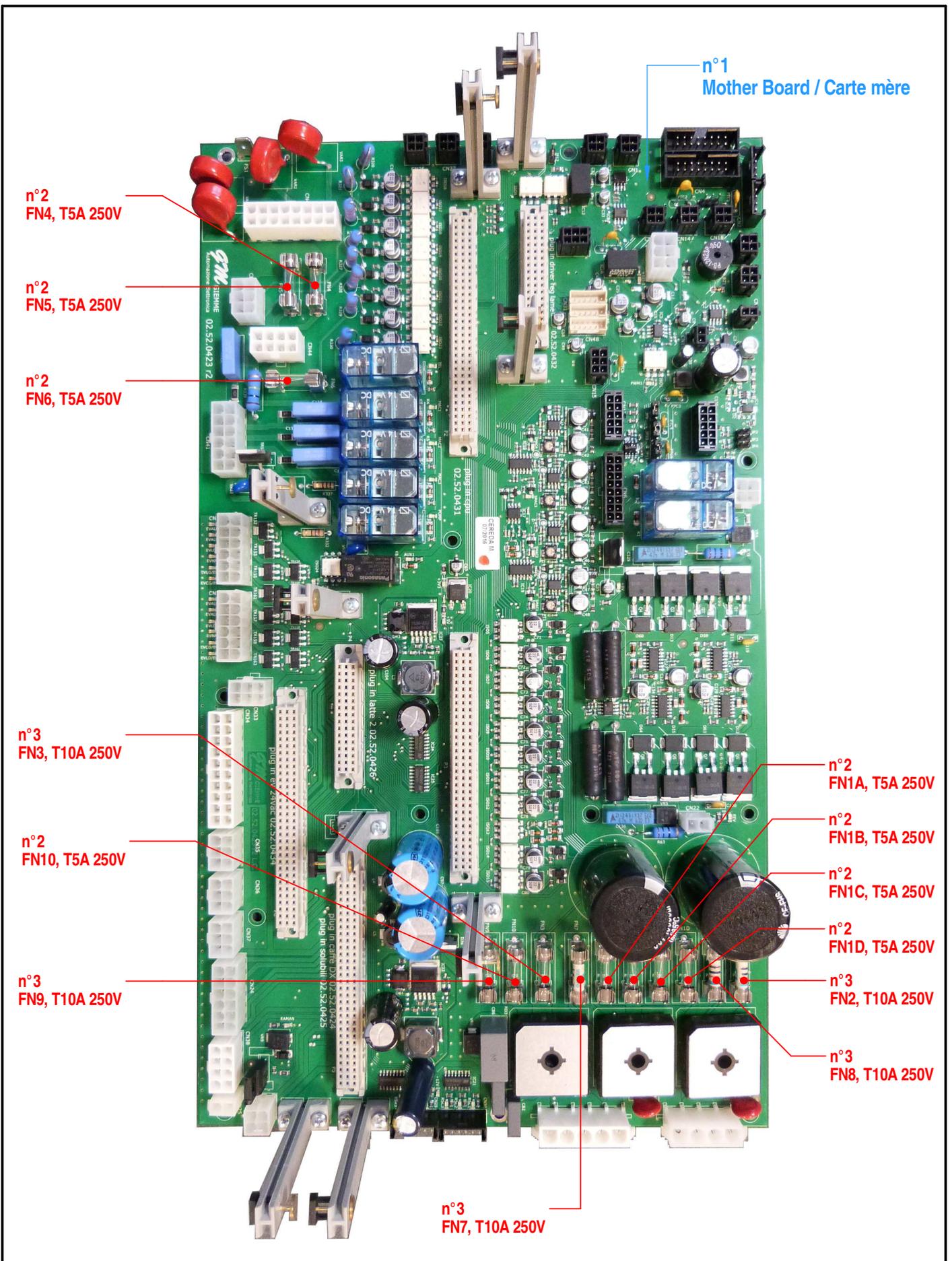
- NA8001 > for TANGO SOLO
- NA8002 > for TANGO DUO



**PLANCHE - PLATE 502**

Pos.	Fact. code	Code	Description FR	Description GB	V	W&T	REF.	NOTES	S/N BREAK
1	45387	0UNDG8	CARTE ELECTRONIQUE MERE LIGHT	ELECTRONIC MAINBOARD LIGHT					
2	43115	0UN115	FUSIBLE 5 X 20 5A RETARDE T	FUSE 5A DELAYED					
3	43112	0UN930	FUSIBLE 5 X 20 10A RETARDE T	FUSE 10A DELAYED					

- FN1A 5A / EV-AC1-A / MODULE 24V: EVRE - EVSE - EVSV - EVNC - EVNK/EVNC - EVA - EVV
- FN1B 5A / EV-AC1-B / MODULE SOLUBLE: MT1 - MT2 - FAN SOL - EVKD/EVM1 - EAED/EVM2  
MODULE CAFE DX: EVKD/EVM1 - EAED/EVM2 - EVCD - EVP2 - EVLD - EVS2
- FN1C 5A / EV-AC1-C / MODULE 24V: EVNKG - EVAEG EVLG - EVCG - EVP1 - EVS1
- FN1D 5A / EV-AC1-D / MODULE 24V: EVAL1 - EVNL1 - EVVL1 - EVAL2 - EVNL2 - EVLL2
- FN2 10A / 22V / ALIM MOTEUR PISTON & PLATEAU PISTON & TURNTABLE MOTOR SUPPLY
- FN3 10A / 19V / +24V SECONDAIRE TRANSFO TRANSFO SECONDARY
- FN4 5A / TELERUPTEUR STEPPING SWITCH
- FN5 5A / NEUTRE NEUTRAL
- FN6 5A / RELAIS / MAC1 - MAC2 - MAC3 - GET1 - GET2 - GET3 - POMPE - AUX1 - CHGR
- FN7 10A / +V PLATEAU / MOTEUR PLATEAU TURNTABLE MOTOR
- FN8 10A / +V PISTON / MOTEUR PISTON PISTON MOTOR
- FN9 10A / +24V CONTINU + POMPE LAIT DC + MILK POMP
- FN10 5A / +12V, +9V, +5V, +3.3V BASSE TENSION CONTINUE ALIM CAPTEUR

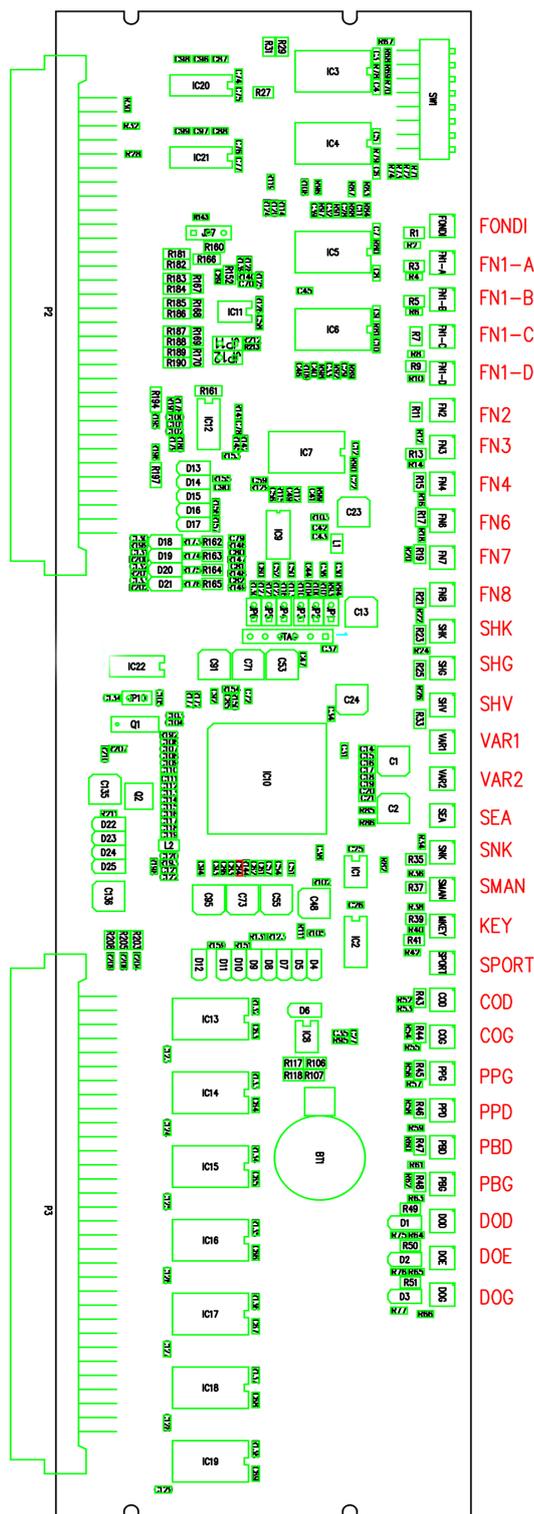


11/22	FUSIBLES CARTE MERE FUSES CONNECTORS	502
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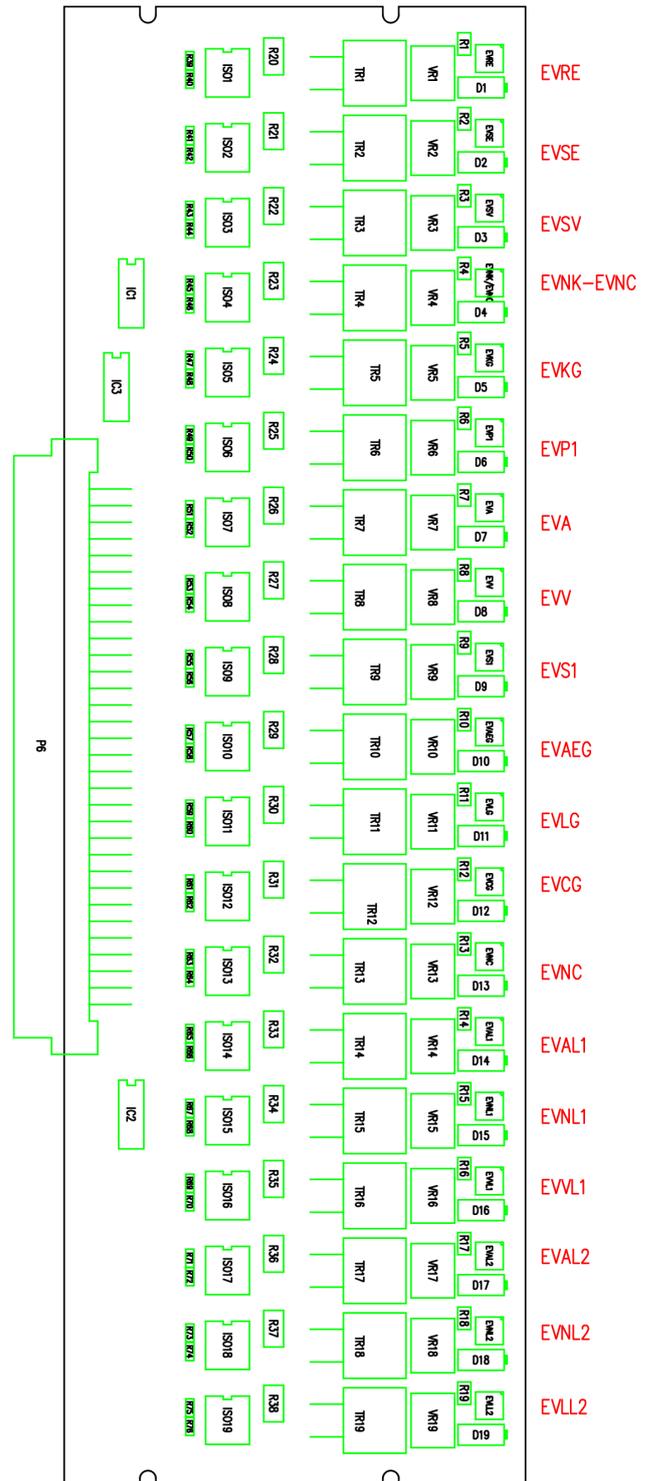
**CPU card > 45381**

FONDI	Coffee grounds tray
FN1A	MODULE 24V: EVRE - EVSE - EVSV - EVNC - EVNK/EVNC - EVA - EVV
FN1B	MODULE SOLUBLE: MT1 - MT2 - FAN SOL - EVKD/ EVM1 - EAED/EVM2 MODULE CAFE DX: EVKD/EVM1 - EAED/EVM2 - EVCD - EVP2 - EVLD - EVS2
FN1C	MODULE 24V: EVNKG - EVAEG - EVLG - EVCG - EVP1 - EVS1
FN1D	MODULE 24V: EVAL1 - EVNL1 - EVVL1 - EVAL2 - EVNL2 - EVLL2
FN2	Piston and tray motor supply
FN3	+24V
FN4	Main switch
FN6	MAC1 - MAC2 - MAC3 - GET1 - GET2 - GET3 - POMPA - AUX1 - CHGR
FN7	Tray motor
FN8	Piston motor
SHK	Heater element safety system, coffee boiler
SHG	Heater element safety system, group
SHV	Heater element safety system, steam boiler
VAR1	
VAR2	
SEA	Water presence safety system
SNK	Plug safety system for the group cleaning circuit
SMAN	Manual door safety system
KEY	
SPORT	
COD	Encoder, right cylinder
COG	Encoder, left cylinder
PPG	Tray position to the left
PPD	Tray position to the right
PBD	Right cylinder low position
PBG	Left cylinder low position
DOD	Right volumetric meter
DOE	Hot water outlet volumetric meter
DOG	Left volumetric meter



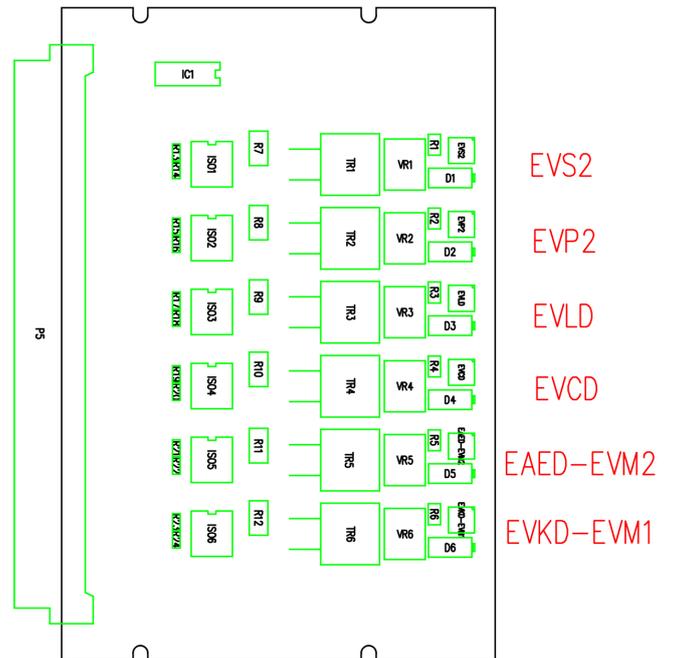
## Solenoid valve card > 45382

EVRE	Filling SV
EVSE	Hot water outlet SV
EVSV	Steam outlet SV
EVNK / EVNC	Coffee cleaning SV
EVKG	Left coffee SV
EVP1	Pre-infusion 1 SV
EVA	Air SV
EVV	Steam SV
EVS1	
EVAEG	SV add water at coffee outlet, left
EVLG	Latte from the LC outlet, left SV
EVCG	Cappuccino from the LC outlet, left SV
EVNC	Cappuccino cleaning SV
EVAL1	Cold air SV
EVNL1	Milk SV
EVVL1	Hot air SV
EVAL2	
EVNL2	
EVLL2	



**GR2 card > 45384**

EVS2	
EVP2	Pre-infusion 2 SV
EVLD	Latte from the LC outlet, right SV
EVCD	Cappuccino from the LC outlet, right SV
EAED / EVM2	SV add water at coffee outlet, right
EVKD / EVM1	Right coffee SV



► **Active components**

OPTION LC		24VDC pump option	
SM1	Coffee safety system, grinder no 1		
SM2	Coffee safety system, grinder no 2		
SM3	Coffee safety system, grinder no 3		
SM4	Coffee safety system, grinder no 4		
CHU	Moisture sensor		
CPV	Steam pressure sensor		
CPR	Mains pressure sensor		
MGET1	Coin acceptor no 1 micro switch		
MGET2	Coin acceptor no 2 micro switch		
SNB	Low level probe		
SNH	High level probe		
THV	Steam boiler thermostat probe		
THG	Group thermostat probe		
THK	Coffee boiler thermostat probe		
CO. D	Encoder, right cylinder		
PB. D	Right cylinder low position		
EVK.D	Right coffee SV		
EVAE.D	SV add water at coffee outlet, right		
EVINF.D	Infusion D (cleaning) SV		
EVS2			
EVC.D	Cappuccino from the LC outlet, right SV	EVVS2	Steam coil SV
EVL.D	Latte from the LC outlet, right SV	EVRP2	Steam cleaning purge-flush SV
MM1	Mixer motor 1		
MM2	Mixer motor 2		
MT1	Bin 1 motor		
MT2	Bin 2 motor		
SFAN	Soluble fan		
SMAN	Manual door safety system		
SEA	Water presence safety system		
SNK	Plug safety system for the group cleaning circuit		
DO. D	Right volumetric meter		
DO. G	Left volumetric meter		
DO. E	Hot water outlet volumetric meter		
CO. G	Encoder, left cylinder		
PP. D	Tray position to the right		
PP. G	Tray position to the left		
PB. G	Left cylinder low position		
EA.MAN	Manual door electro-magnet		
RSV1	Static steam relay 1		
RSV2	Static steam relay 2		
RSV3	Static steam relay 3		
RSC1	Static coffee relay 1		

RSC2	Static coffee relay 2		
RSC3	Static coffee relay 3		
EVALF1	Cold milk air SV	EVALF1	Cold air SV
EVNL1	Milk cleaning SV	EVNL1	Milk SV
EVALC1	Hot milk air SV	EVALC1	Hot air SV
EVRE	Filling SV		
EVSE	Hot water outlet SV		
EVKN	Coffee cleaning SV		
EVK.G	Left coffee SV		
EVP1	Pre-infusion 1 SV		
EVA	Air SV	EVLCF	Hot / cold milk selection SV
EVV	Steam SV	EVNR	Clean / flush SV
EVDC	DISCHARGE (cleaning) SV		
EVAE.G	SV add water at coffee outlet, left		
EVL.G	Latte from the LC outlet, left SV	EVVS1	Steam coil SV
EVC.G	Cappuccino from the LC outlet, left SV	EVRP1	Steam cleaning purge-flush SV
EVNC	Cappuccino cleaning SV	EVNL	Milk pump cleaning SV
MAC 1	Grinder no 1 (purple)		
MAC 2	Grinder no 2 (green)		
MAC 3	Grinder no 3 (orange)		
POMP	Pump motor		
SNL1	Milk level probe 1		
SNL2	Milk level probe 2		
EVALF2	Cold milk air 2 SV	EVALF2	Cold air SV
EVNL2	Milk cleaning 2 SV	EVNL2	Milk SV
EVALC2	Hot milk air 2 SV	EVALC2	Cold / hot air SV
GET1	Coin acceptor coil no 1		
GET2	Coin acceptor coil no 2		

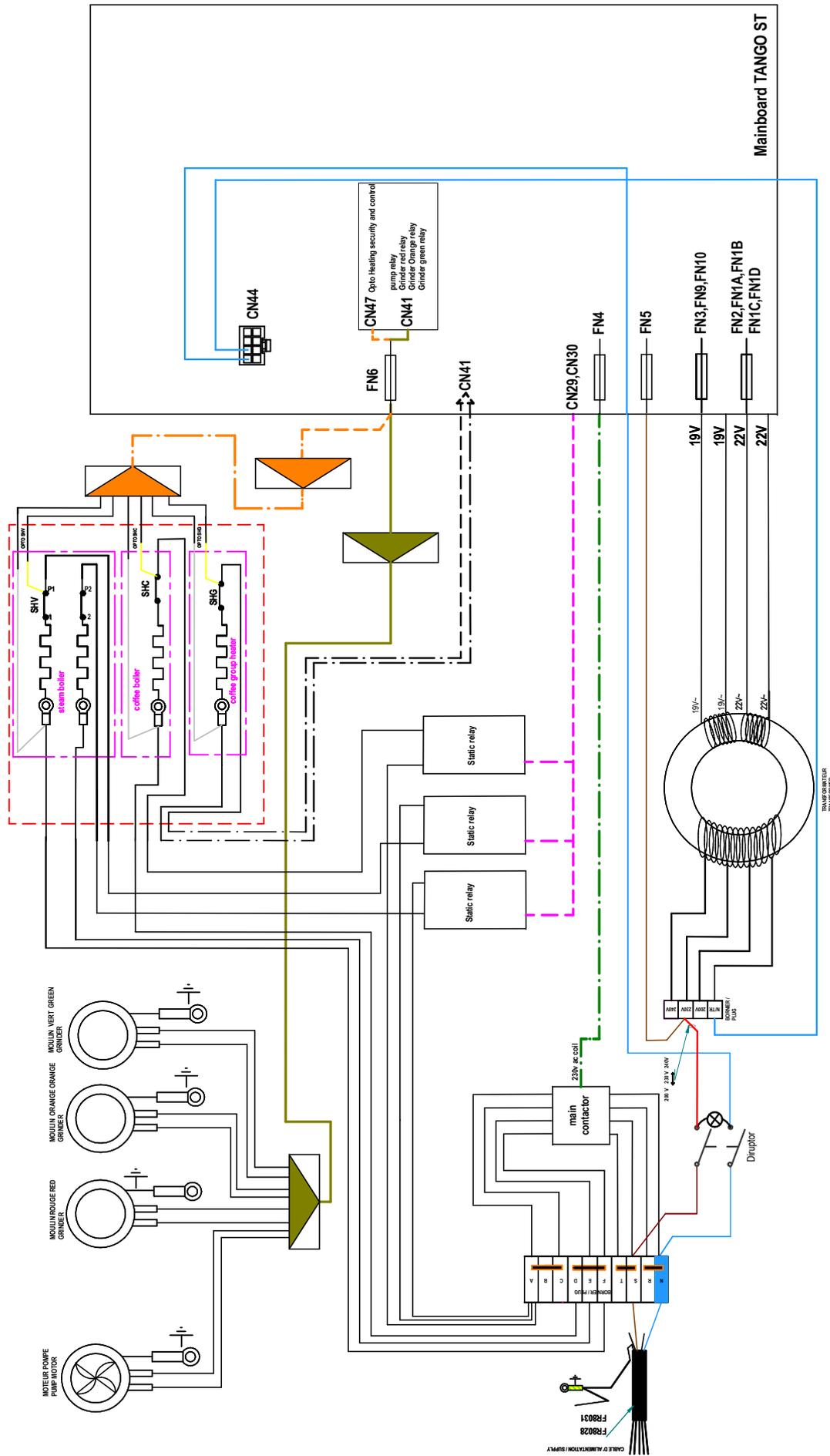
► **List of error codes**

<b>Error code no</b>	<b>Component</b>	<b>Error code description</b>
1		High level probe
2		Connection error, level probes
2		The two level probes not covered
3		Low level probe error
4		Tray rotation time-out
5	SHK	Coffee boiler heater overheating safety device
6	SHV	Steam boiler heater overheating safety device
7	SHG	Group boiler heater overheating safety device
8	SNK	Pellet cleaning unit plug open
9		Coffee grounds drawer out
10	Left piston	Lowering Time-out disconnected
10.1	Left piston	Lowering Time-out motor slow
10.2	Left piston	Lowering Time-out transmission
11	Right piston	Lowering Time-out disconnected
11.1	Right piston	Lowering Time-out motor slow
11.2	Right piston	Lowering Time-out transmission
13		Communication error, left screen
14		Communication error, right screen
15		Decaffeinated trap safety system
16	FN1A	Fuse broken
17	FN2	Fuse broken
18	FN3	Fuse broken
19	FN1B	Fuse broken
20	FN8	Fuse broken
21	FN1C	Fuse broken
22	FN1D	Fuse broken
23	FN4	Fuse broken
24	FN6	Fuse broken
25	FN7	Fuse broken
26		Screen fan over-voltage
27	THV	Steam overheating safety device
28	THG	Group overheating safety device
29	THK	Coffee overheating safety device
30		Boiler filling time-out
31	Left piston	Encoder Fault
31.1	Left piston	Encoder Fault
32	Left piston	Low position fault
33	Left piston	Does not rise safety time-out
34	Left piston	Movement error
35	Left piston	Rise safety time-out fault
35.1	Left piston	TKC Rise safety time-out fault

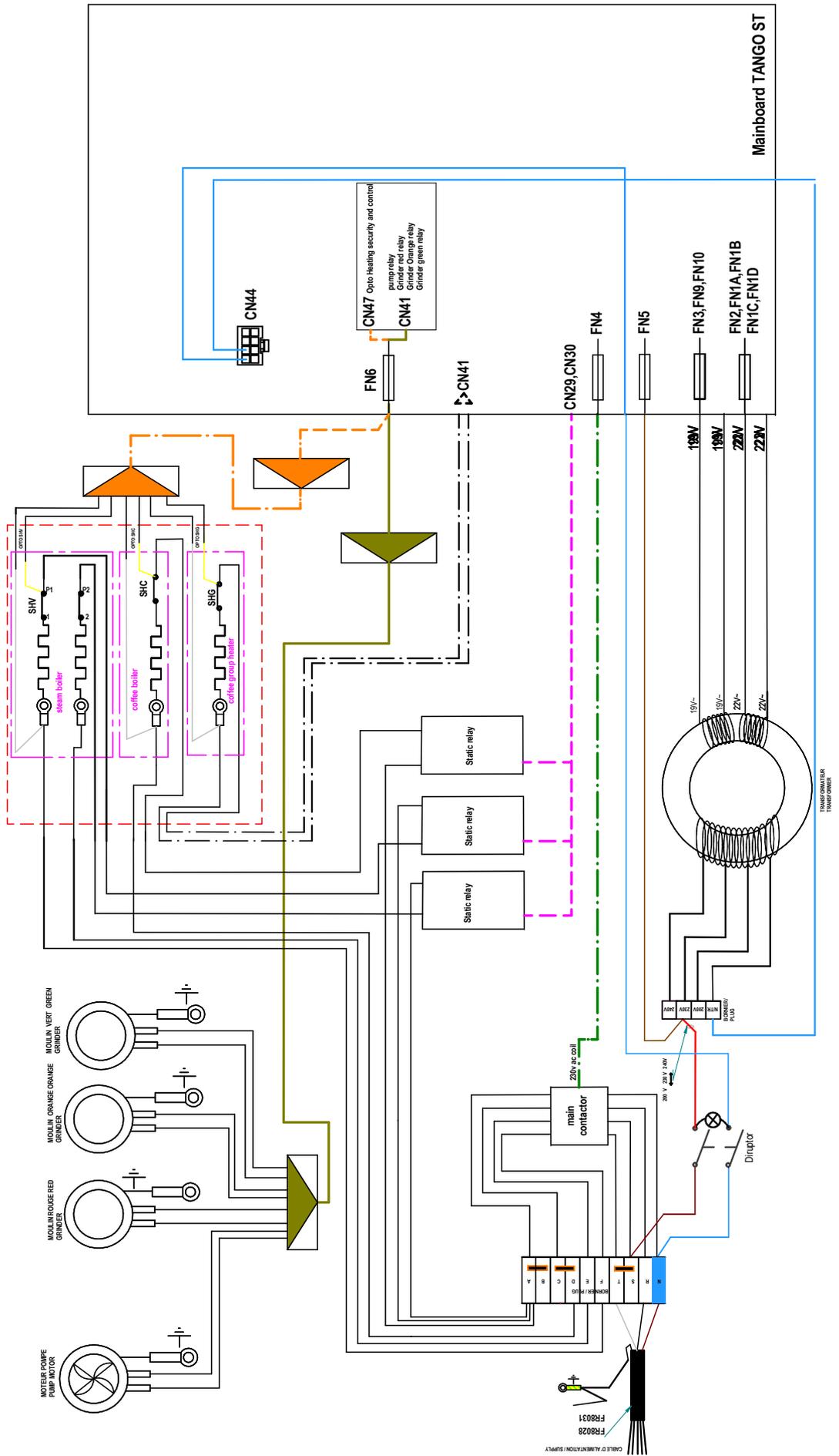
36	Left piston	Jammed or simultaneous faults on the encoder and the PMBas
37	Left piston	Does not move backwards
38	Left piston	Encoder Fault
41	Right piston	Encoder Fault
41.1	Right piston	Encoder Fault
42	Right piston	Low position fault
43	Right piston	Does not rise safety time-out
44	Right piston	Movement error
45	Right piston	Rise safety time-out fault
45.1	Right piston	TKC Rise safety time-out fault
46	Right piston	Jammed or simultaneous faults on the encoder and the PMBas
47	Right piston	Does not move backwards
48	Right piston	Encoder Fault
50	THK	Coffee boiler thermostat probe disconnected
51	THK	Coffee boiler thermostat probe, short circuit
52	Left piston	Over-voltage during descent
57	Left piston	Over-voltage during expulsion
60	THV	Steam boiler thermostat probe disconnected
61	THV	Steam boiler thermostat probe, short circuit
62	Right piston	Over-voltage during descent
66	Right piston	Over-voltage during expulsion
67		Volumetric meters reversed
70	THG	Group thermostat probe disconnected
71	THG	Group thermostat probe disconnected
72	CPV	Error
73	CPV	Short circuit
74	CPR	Error
75	CPR	Short circuit
76	CHU	Error
77	CHU	Short circuit
78	SEA	Inlet water pressure error
79	STM	Steamair probe disconnected
80	STM	Steamair probe disconnected in short circuit
81	DOG	Jammed
82	DOD	Jammed
83	DOE	Jammed
90		Machine settings corrupted
91		Piston settings corrupted
92		Calibration settings corrupted

► Electric wirings

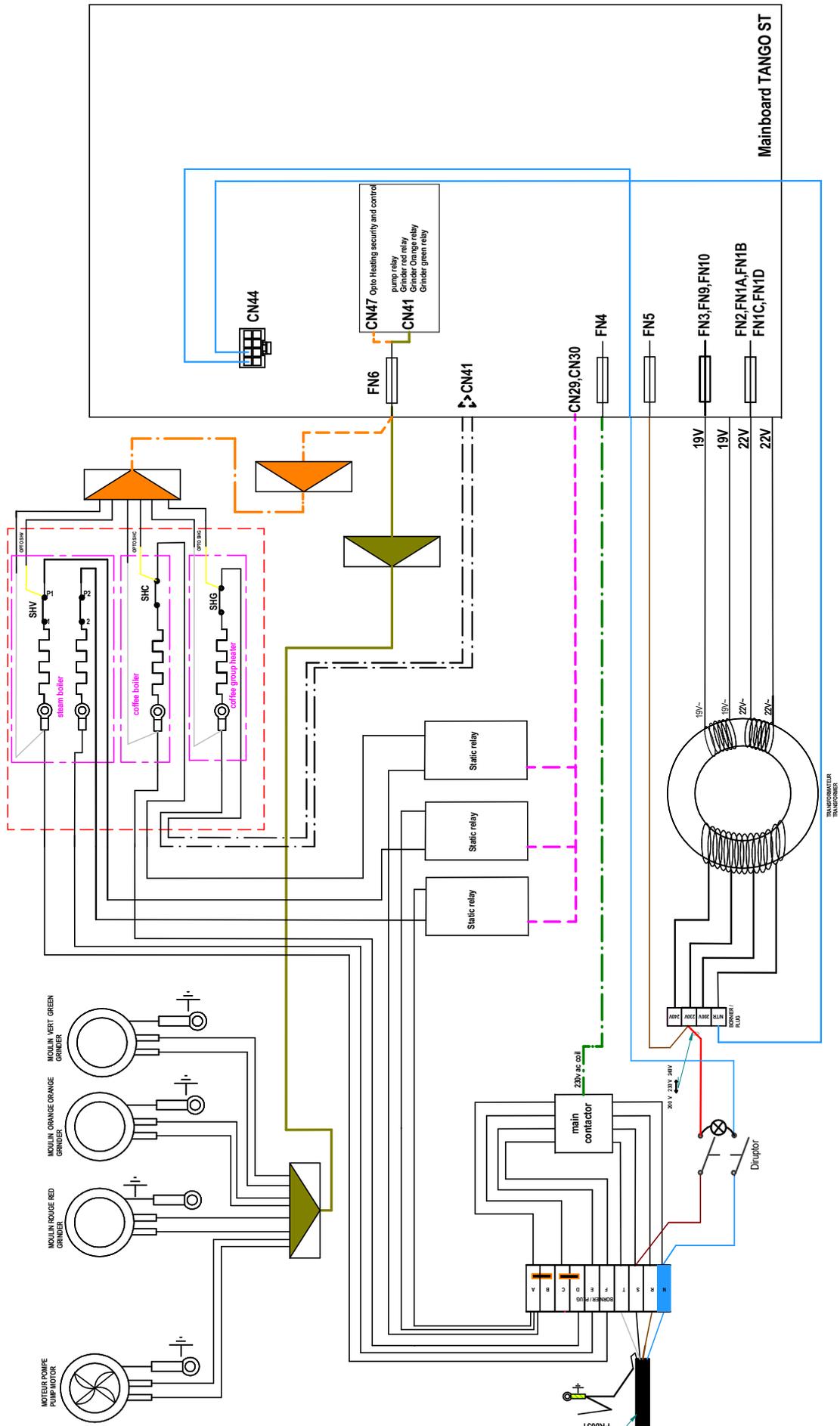
**TANGO NEXT GEN SCHEMA  
DE CABLAGE  
DE PRINCIPE 230V mono**



# TANGO NEXT GEN SCHEMA DE CABLAGE DE PRINCIPE 230V tri

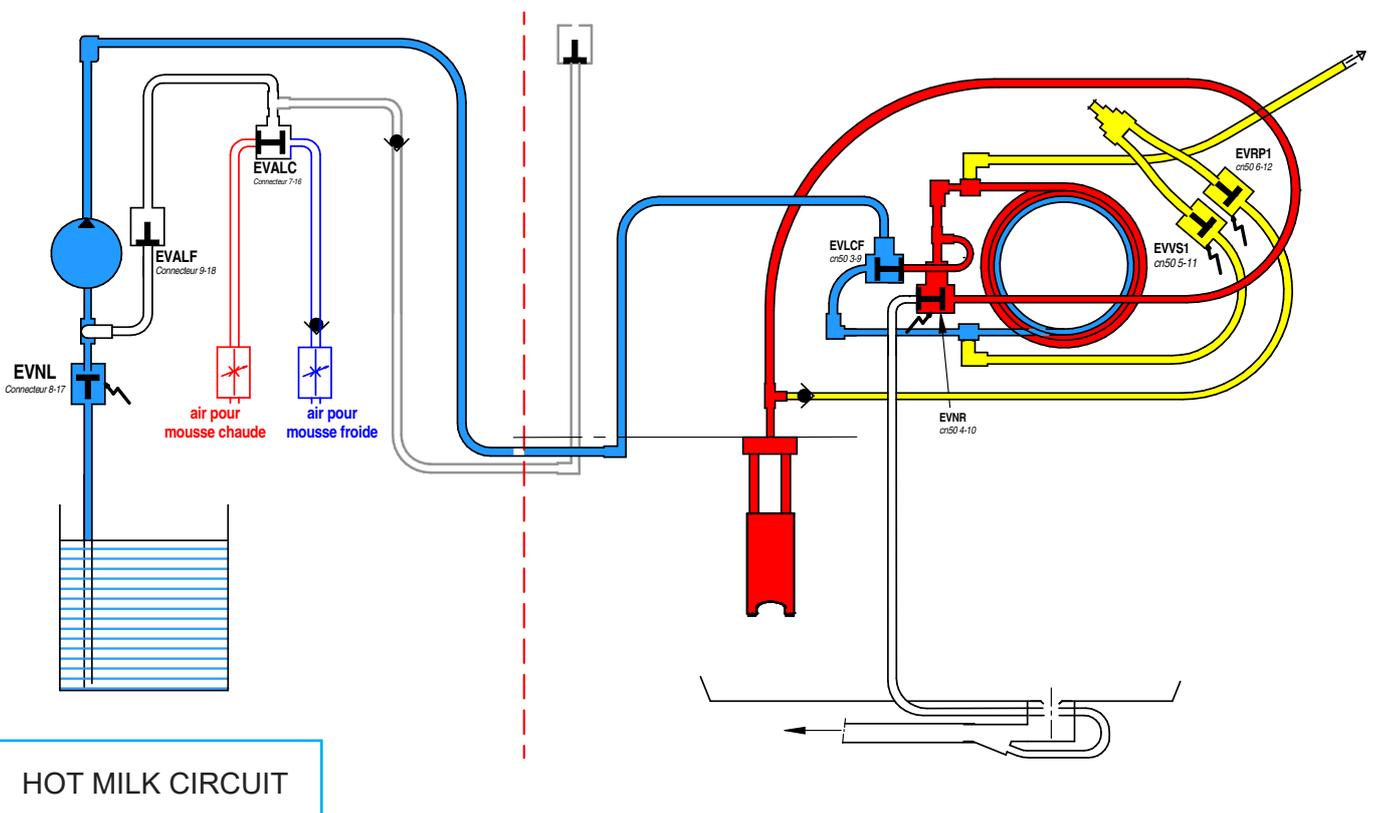
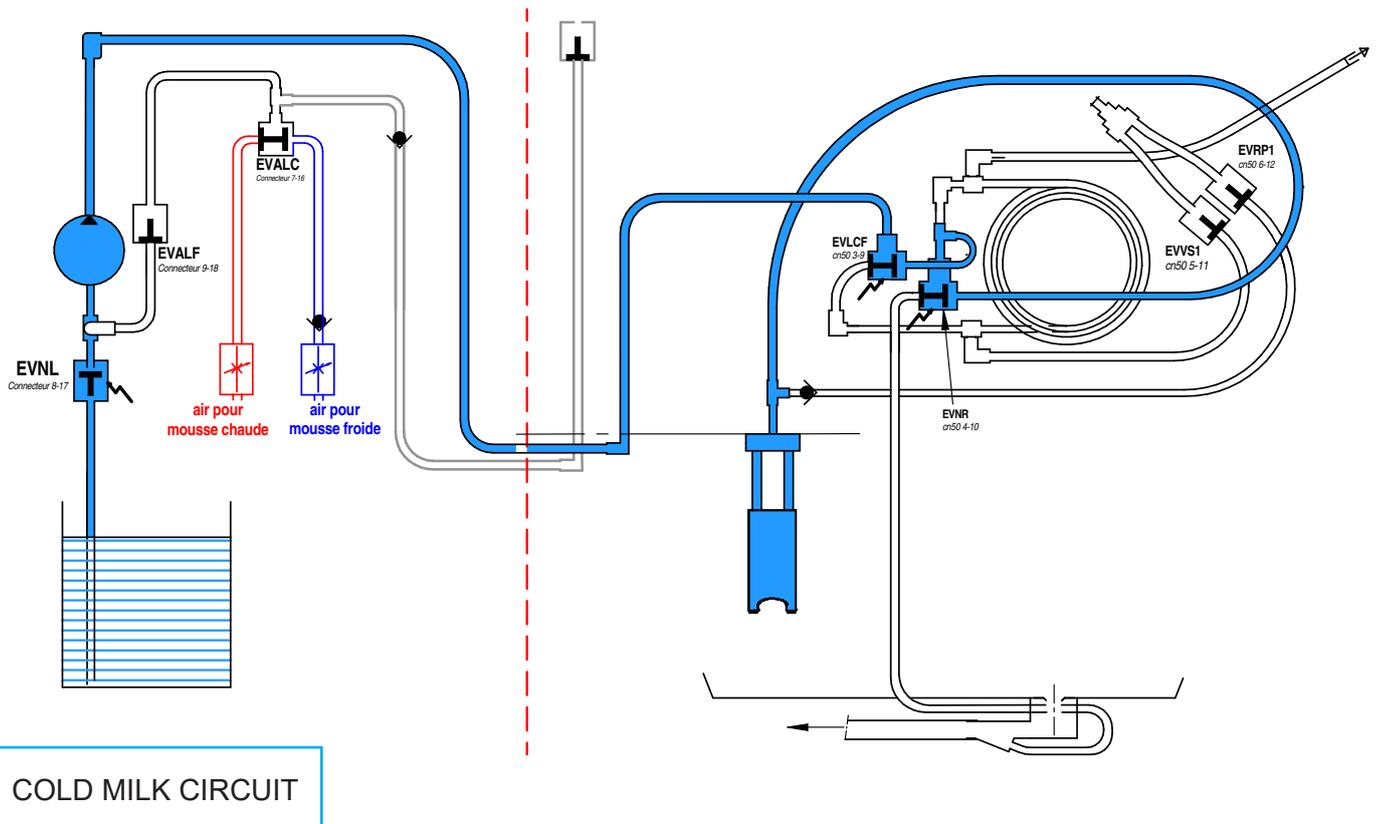


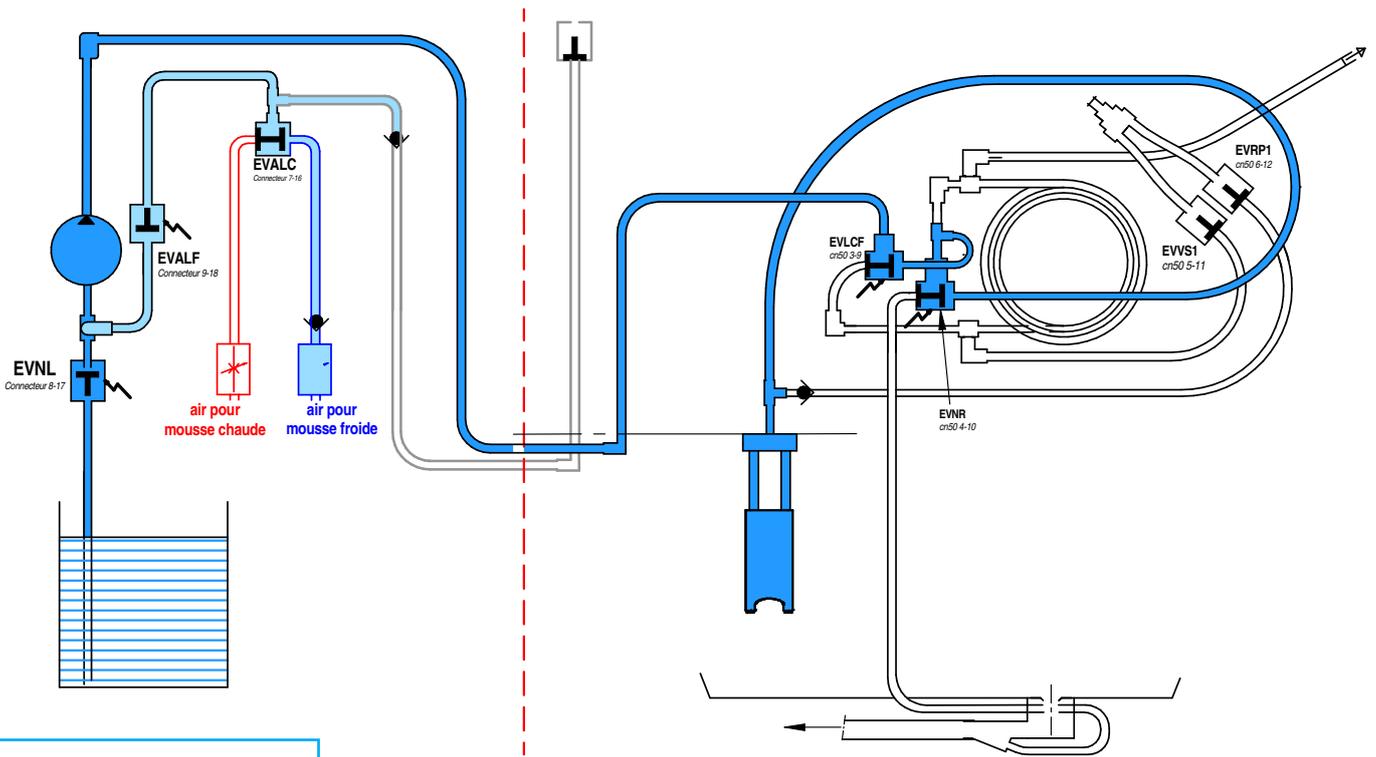
# TANGO NEXT GEN SCHEMA DE CABLAGE DE PRINCIPE 400V tri



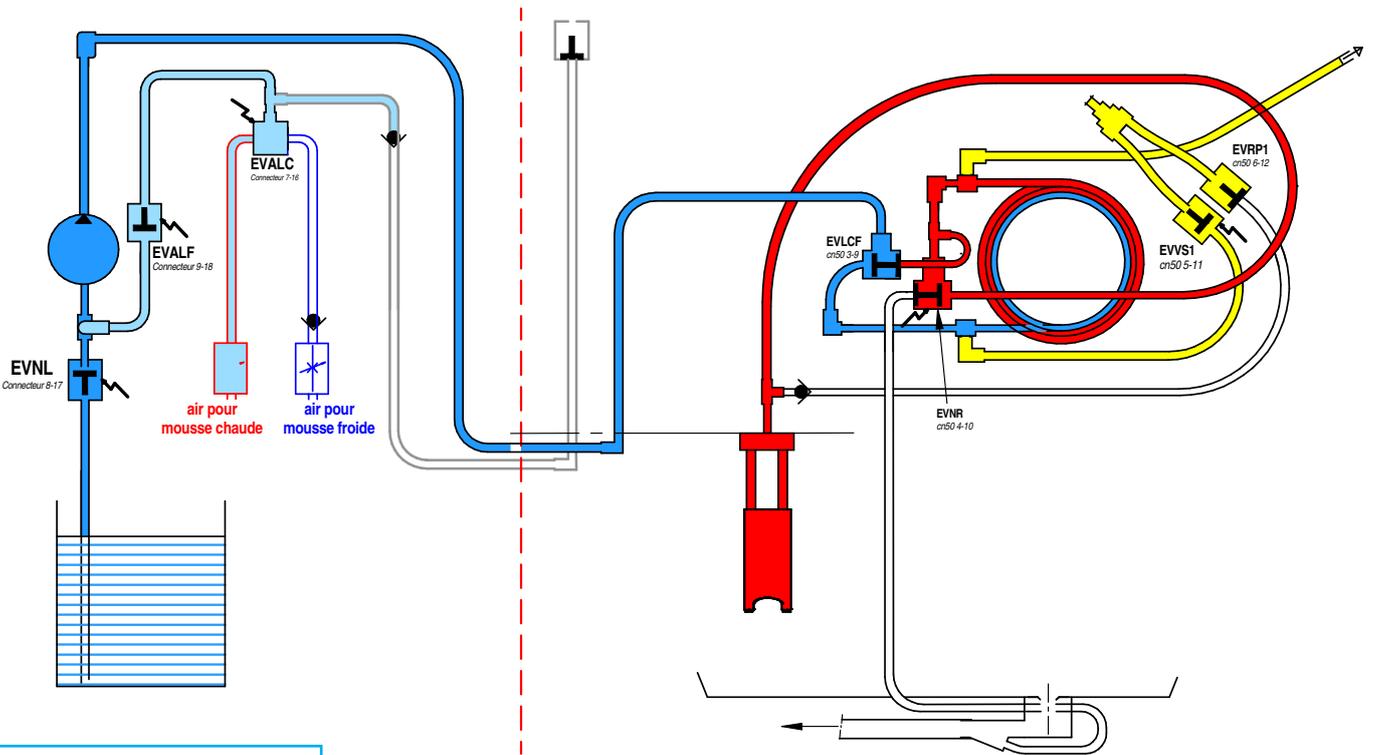
► Milk / foam system

◆ Principle diagrams



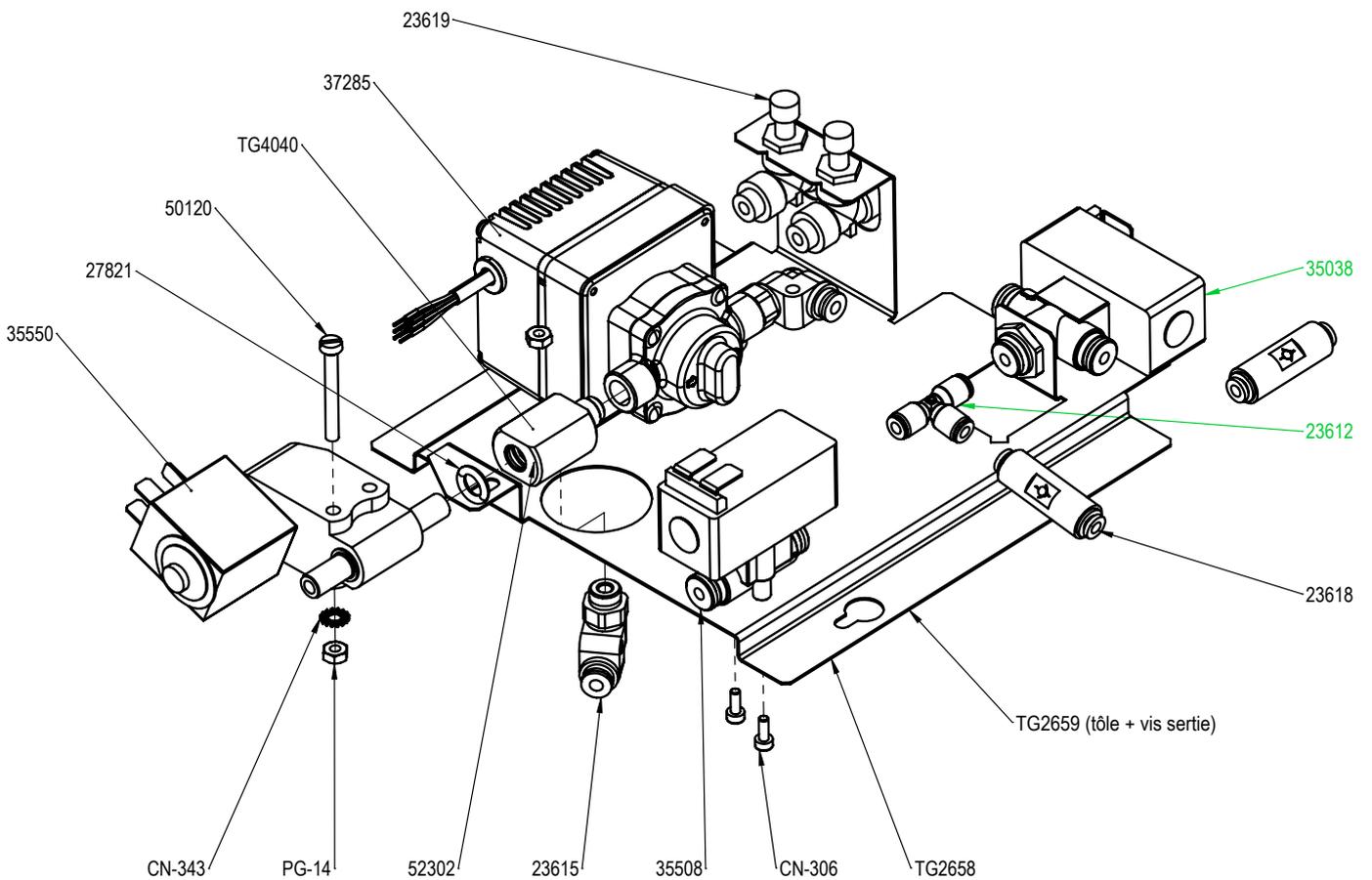
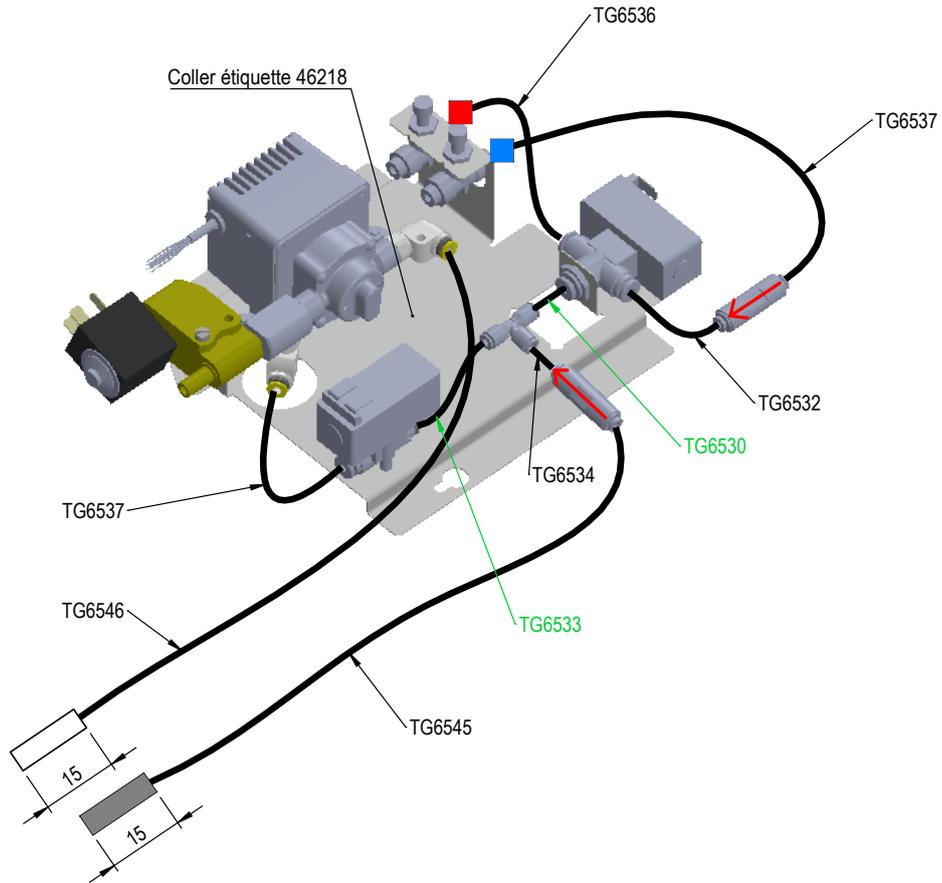


COLD FOAM CIRCUIT



HOT FOAM CIRCUIT

◆ **Subassembly in the fridge module**



◆ **Removing the sub-assembly**

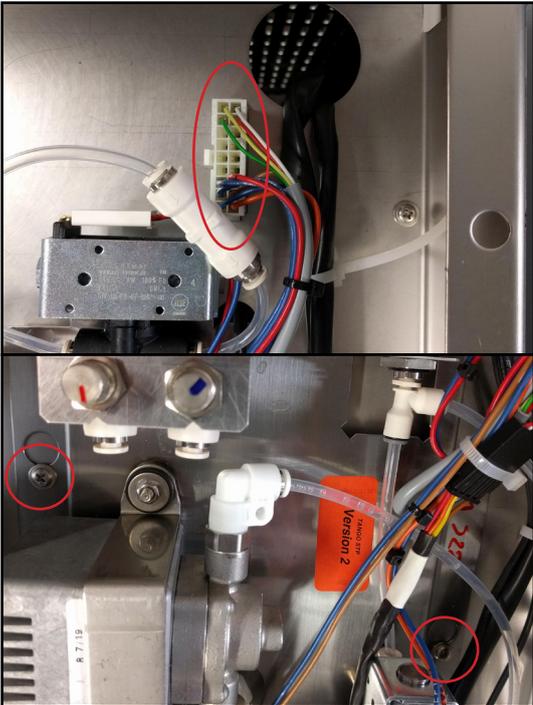
1- Remove the cup heater grille, then unscrew the 4 screws from the cup heater.



2- Module without cup heater unit.



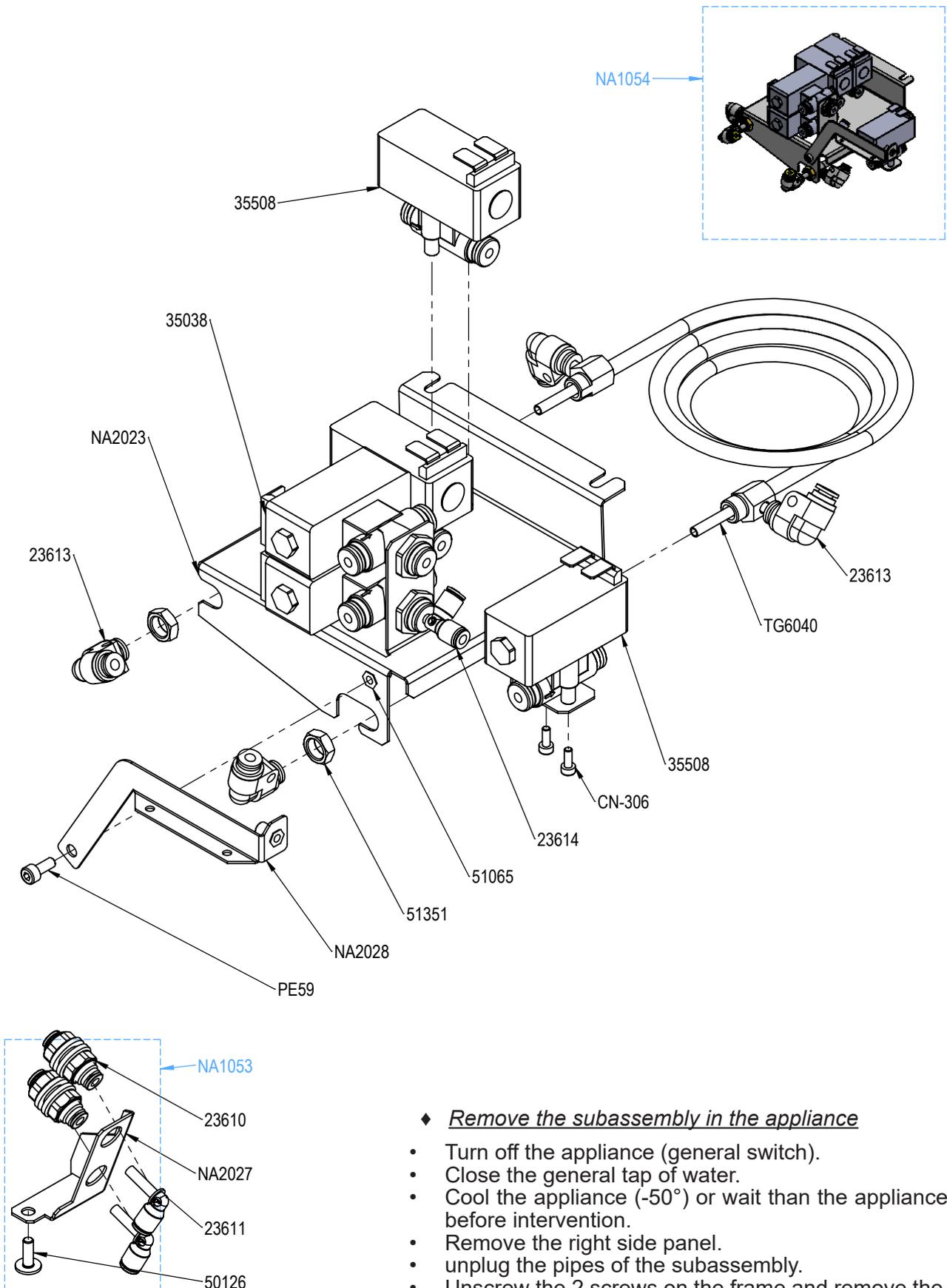
3- Disconnect the main connector on the back. Unscrew (not fully) the two screws; then simply slide the unit forwards to extract the module.



4- Module without the unit.



◆ **Subassembly in the appliance**



◆ **Remove the subassembly in the appliance**

- Turn off the appliance (general switch).
- Close the general tap of water.
- Cool the appliance (-50°) or wait than the appliance cold before intervention.
- Remove the right side panel.
- unplug the pipes of the subassembly.
- Unscrew the 2 screws on the frame and remove the bloc.

◆ **Troubleshooting**

«Milk» system diagnosis, follow step by step from the top to the bottom, for each element.

Product	Possible cause	Remedy
<b>MILK</b>	<b>Not hot enough</b>	Check steam boiler pressure+-1.1bar
		Check the speed of the pump (between 20% and 35%)
		Check the EVVS solenoid valve heating circuit (coil heating)
		Check the coil; it is probably clogged. Replace if necessary
	<b>Dose problem</b>	Check the inlet nozzle (refrigerator tube)
		Check for pinching /positioning of the tube in the refrigerator
		Check the milk time in seconds (product settings)
		Check pump rotation speed, replace if needed
	<b>Bubble at the nozzle or spitting</b>	Check the refrigerator module circuit for air leaks
		Check the hot water nonreturn valve, change if necessary
		Check the pump union / EVNL sealing
		Check the sealing of the hot/cold air EVALF/EVALC SV
	<b>Cold milk / not cold enough</b>	Check the milk temperature in the refrigerator
		Check the EVLCF; it must be in operation during a cold cycle.
		If EVLCF does not operate check the presence of 24VDC; if OK replace the solenoid valve

«Foam» system diagnosis, follow step by step from the top to the bottom, for each element.

Product	Possible cause	Remedy
FOAM	<b>Not hot enough</b>	Check steam boiler pressure +/-1.1bar
		Check the pump speed (between 20% and 35%)
		Check the EVVS solenoid valve heating circuit (coil heating)
		Check the coil; it must be clogged
	<b>Dose problem</b>	Check the inlet nozzle (refrigerator tube)
		Check the milk time in seconds (product settings)
		Check pump rotation speed, replace if necessary
	<b>No foam</b>	Check EVALC (hot milk) or EVALF (cold milk)
		Check that the hot water valve is not clogged
		Check the pump speed in relation to the product (hot 10-15%/ cold 50-70%)
		Disconnect the hot water valve, run a cycle, if presence foam with spitting problem of air entry (check EVALF/EVALC)
		Change the pump
	<b>Poor quality foam</b>	Check milk temperature between 3°C and 8°C
		Check the «advanced milk settings» (see of adjustment sheet)
		Review the air settings (flush first)
		Check the tightness of the entire hydraulic circuit
		Change the pump
	<b>Foam too dense</b>	Check the pump speed in relation to the product (hot 10-15%/ cold 50-70%)
		Reduce hot air if hot product
		Reduce cold air if cold product
	<b>Foam not dense enough</b>	Check the pump speed in relation to the product (hot 10-15%/ cold 50-70%)
		Increase hot air if hot product
		Increase cold air if cold product
	<b>Bubbly foam or spitting from the nozzle</b>	Check the refrigerator module circuit for air leaks
		Check the hot water nonreturn valve, change if necessary
		Check the pump union / EVNL
		Check the sealing of the hot/cold air EVALF/EVALC SV
	<b>Cold milk / not cold enough</b>	Check the milk in the refrigerator (check the calibration)
		Check EVLCF; it must be in operation during a cold cycle.
		If EVLCF does not operate check the presence of 24 VDC; if OK replace the solenoid valve

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