



NGC



TECHNICAL DOCUMENTATION

Edition 02/2025

Table of contents

Page

1	SAFETY INSTRUCTION	3
2	TECHNICAL DOCUMENTS	5
3	DIMENSIONS	5
4	INSTALLATION	6
5	OPERATION	8
6	HOW TO USE THE MACHINE	9
7	"NORMAL" MODE AND "ECO MODE"	14
8	CLEAN MENU	16
9	DOSE PROGRAMMING	17
10	PROGRAMMING MENU	19
11	COFFEE COUNTERS	38
12	MENU ALARME	39
13	ALARMS RESET	42
14	ELECTRONIC DIAGRAM	45
15	HYDRAULIC SCHEMA	50
16	OPTION AVAILABLE	51



1 SAFETY INSTRUCTION

1.1 WARNINGS

- The machine can be used with ground coffee only
- It is advisable to install a mains earth leakage circuit breaker with a rated differential current not exceeding 30 mA
- The device must not be installed less than 3cm away from a wall.
- This appliance is intended to be used by expert or trained users in shops or for commercial use by lay persons
- This appliance can be used by children aged from 8 years and above and persons 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.
- Children shall not play with the appliance.
- Cleaning and user maintenance shall not be made by children without supervision.
- Technical handling operations, such as installation, maintenance, or troubleshooting, must be carried out by qualified personnel or by a local dealer.
- The A-weighted sound pressure level is below 70 db.
- The appliance shall be connected to the water mains by the hose provided with the coffee machine, paying attention to any applicable national rules.
- For the installation instructions, check the section 4 of this manual.
- The appliance is not suitable for installation in an area where there is a water jet.
- The appliance must be placed in a horizontal position.
- The appliance is only to be installed in locations where its use and maintenance is restricted to trained personnel.
- For maintenance, check section 15.
- The appliance must not be cleaned by a water jet.
- To ensure the hygienic aspect follow the section 15 “Daily maintenance”.
- Devices for disconnection from the main supply, having a contact separation of at least 3mm in all poles, that provide full disconnection under overvoltage category III must be provided in the fixed wiring in accordance with the installation rules.
- If the supply cord is damaged, it must be replaced by manufacturer, its service agent, or similarly qualified persons to avoid a hazard.
- To prevent freezing, we recommend respecting the declare operating temperature: 5-25°C.
- The ambient humidity must not exceed 70 %
- The machine must be placed such as the cup warmer is located more than 1.5 meters from the ground.
- The machine must be connected to a supplying voltage:
Suitable for the voltage and the power consumption of the machine
- For the correct operation the minimum inlet water pressure should be 0,2 MPa and the maximum inlet water pressure should not exceed 0,6 MPa



1.2 AMBIENT CONDITIONS

- The ambient temperature around the machine had to be between 5°C et 25°C.
- The ambient humidity must not exceed 70 %
- The machine must be placed such as the cup warmer is located more than 1.5 meters from the ground.

1.3 DURING INSTALLATION

- The installation (electrical connections, water supply and drainage) must be carried out by a qualified technician approved by CONTI.
- The machine must be connected to a device conforming to the standards of the country where the machine is installed. Potential costs of equipment compliance are the only responsibility of the customer.
- Conditioned electrical connection:

The machine must be connected to an electrical network whose output impedance must be at least:

L: 0,24 Ohm + j 0,15 Ohm for phase

N: 0,16 Ohm + j 0,10 Ohm for neutral



- For any technical intervention, the machines must always have the power disconnected from the mains.
- An effective earth connected to the terminal provided for this purpose on the device is mandatory
- A screw located under the bottom base machine, allow if necessary, to connect several machine on an equipotential way.
- Devices for disconnection from the main supply, having a contact separation of at least 3mm in all poles, must be provided in the fixed wiring in accordance with the installation rules.

1.4 DURING THE USE

- When the machine is not operating, the water cut-off valve has to be closed and the electrical power supply cut.
- When the machine is not supervised it must be disconnected from the power and water supply.
- Never disconnect the earthing when the machine is connected to the power supply.
- Machines must always be disconnected from the main power, in case of technical interventions.

➤ **We guarantee our machines subject to a correctly sized water treatment is installed backward and adjusted according to the carbonate hardness of the water network.**

1.5 RULES RELATING TO THE ENVIRONMENT

- This device has been designed according to the European Directive No. 2002/95/EC. This refers to the restriction of certain hazardous substances in electrical and electronic equipment (ROHS)
- This device has been designed in compliance with the European Directive No. 2002/96/EC concerning waste electrical equipment (WEEE).
- This picture informs you that this device should not be discarded with household waste.
- At end of life, this product must be returned to a collection point or returned to an authorized dealer. By doing so, you will help to protect the environment and human health.



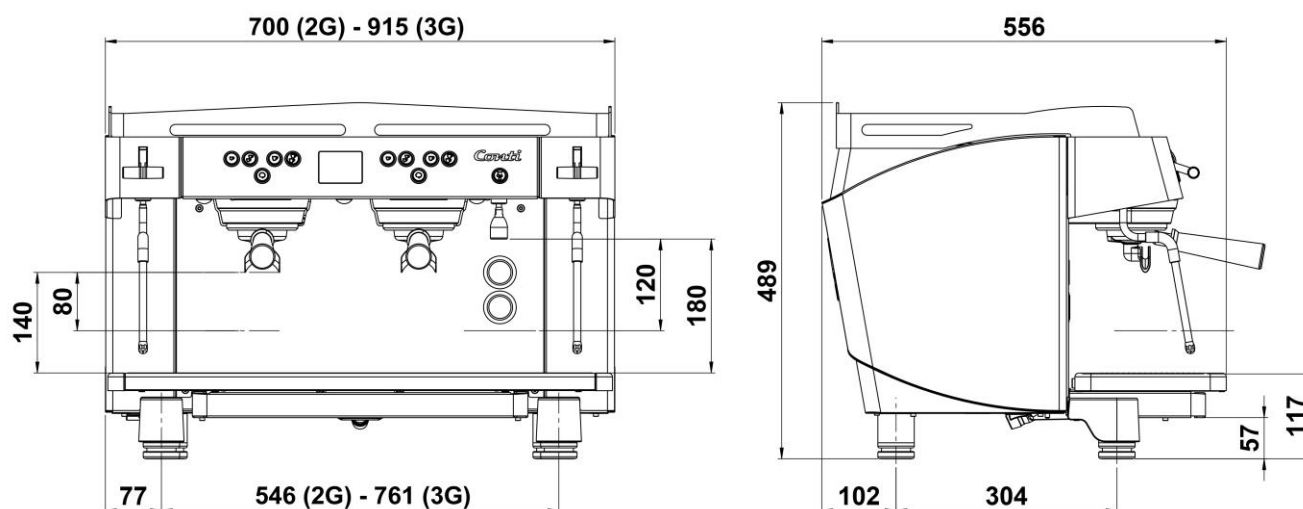
2 TECHNICAL DOCUMENTS

MACHINE TYPE	HEATING POWER (Watt)	INSTALLED POWER (Watt)	POWER USED (Ampères).	
			230V	400V
NGC2 monophasé	3300	3600	15	--
NGC3 monophasé	4700	5000	22	--
NGC2 triphasé	4200	4500	--	7A / Ph
NGC3 triphasé	6000	6300	--	10A / Ph

CAPACITY OF BOILER IN LITERS		
	2G	3G
TOTALE	10	16
VOLUME of HOT WATER	7,5	12
VOLUME of STEAM	2,5	4

	WEIGHT (Kg)	WEIGHT WHEN WORKING (Kg)
2G	63	71
3G	73	85

3 DIMENSIONS



4 INSTALLATION

4.1 IN CASE OF A STANDBY OF THE MACHINE (STANDBY = 2 MONTHS):

- The first thing to do is to test your machine in a lab.
- If the machine stop running for a long time, you could have scale in some places.
- More precisely in small area like the spray nozzle.

4.2 PROTECTIONS

- It is necessary to place before the machine:
 - A water shutoff valve.
 - An electrical protection standard, suitable for voltage and power consumption.

4.3 WATER SUPPLY

- Recommended operating pressure from 0,2 MPa to 0,6 MPa
- Water connection pin 3/8"
- The water supply pipes must resist to 145 Psi / 1 MPa

4.4 DRAIN

- Without pressure.
- **Spigot at the outlet of the machine and a pipe is supplied with the machine**
- Ensure a connection that causes no risk of fluid return, and ensure good drainage:
 - The drain pipe must be located lower than the machine.
 - Do not create a bend in the exhaust tube.

4.5 SUPPLYING VOLTAGE

According to the model:

- 220-230 V 50-60 Hz
- 380-400 V 3N~ 50-60Hz



4.6 WATER SOFTENER

- When the mains water has a high hardness ($>10^{\circ}\text{TH}$ ou $>4^{\circ}\text{KH}$), it is recommended:
 - To use a water treatment
 - To regenerate regularly the filters.
- What is the **total Hardness of the water** ?
 - This is the amount of calcium and magnesium ions in the water.
 - These ions are partly responsible for limestone formation.
 - It is measured with the test strip provided with the machine.
 - The unit of measurement is the $^{\circ}$ French ($^{\circ}\text{TH}$) or the $^{\circ}$ German ($^{\circ}\text{dH}$).
- What is the **Karbonat Hardness of the water** ?
 - This is the amount of Carbonate Calcium ions and Carbonate Magnesium ions in the water.
 - These ions are completely responsible for limestone formation.
 - It is measured with chemical dropper testers.
 - The unit of measurement is $^{\circ}$ Carbonate ($^{\circ}\text{KH}$)

There are 2 types of water treatments:

- Salt water softeners
 - They treat the total water hardness ($^{\circ}\text{TH}$)
 - By an exchange of sodium ions with calcium and magnesium ions.
 - They require periodic regeneration of the resins by the user.
 - To use when the water hardness is $> 10^{\circ}\text{TH}$ ou $> 5^{\circ}\text{GH}$
- Resins filters :
 - They treat the Carbonat hardness water ($^{\circ}\text{KH}$)
 - By fixing carbonate ions on the resins.
 - Often fitted with microfiltration and carbon filtration.
 - To use when the Carbonat Hardness is $> 6^{\circ}\text{KH}$
 - Highly recommended by the manufacturer :
 - The machines are equipped with suitable protection in accordance with flowrate and the water encountered.
 - The changing cartridges is carried out by the technical service, at intervals to be determined



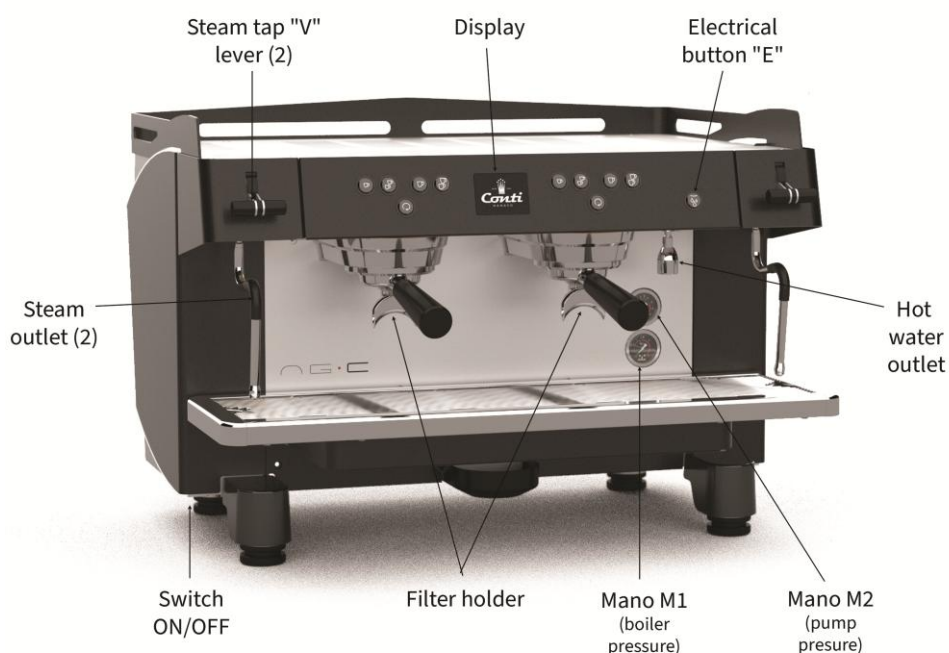
5 OPERATION

5.1 RECOMMANDATIONS

- Open the main water tap if it is closed.
- Do not power the machine currently.
- Check the water presence in the machine on the M2 pump pressure gauge. (between 2 and 6 Bar)

5.2 INITIAL FILLING-UP

- Ensure that steam taps levers 'V' are open.
- Switch on the machine.
- The light bar around the machine turns on.
- The boiler fills up automatically without heating.
- The keyboard lights scroll.
- When the boiler is full, the machine starts heating up.
- Close the steam taps levers 'V' and wait.
- When the keyboard lights stop scrolling, the machine is ready.
- Before the first use, run 1 liter of water from each group as well as from hot water.



5.3 FURTHER FILLING-UP

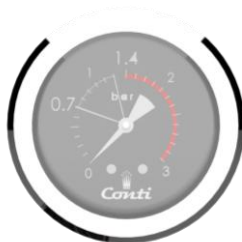
- Further filling-up will run automatically, according to the hot water needs.
- The water level in the boiler is controlled by the electronics through the level probe.



6 HOW TO USE THE MACHINE

6.1 OPERATING ELEMENTS

➤ MANOMETER M1 : BOILER PRESSURE



The "M1" pressure gauge indicates **the steam pressure** in the boiler.

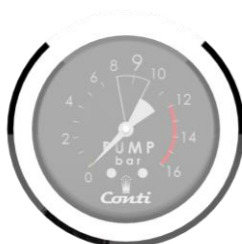
Adjustment range: 0.8 Bars to 1.4 Bars (0.8 MPa to 0.14 MPa).

Factory setting: **1 Bar** (120 °C) (0.1 MPa)

This pressure fluctuates slightly around the setting value, thanks to a PID regulation that manages the heating and limits the current expenditure to its strict minimum

NOTE : A safety thermostat shuts off the heat in the event of an abnormal temperature increase.

➤ MANOMETER M2 : PUMP PRESSURE



The "M2" pressure gauge indicates the pressure in the coffee circuit, which corresponds to:

The pressure of the water network when the machine is idle: 2 to 6 Bar (0.2 MPa to 0.6 MPa)

The pressure of the pump when the machine is in action: **9 Bars.** (0.9 MPa)

A setting of **9 Bars** (0.9 MPa) guarantees the best conditions for extracting the aromas from the coffee.

A professional positive displacement pump guarantees this **constant pressure** during extraction.

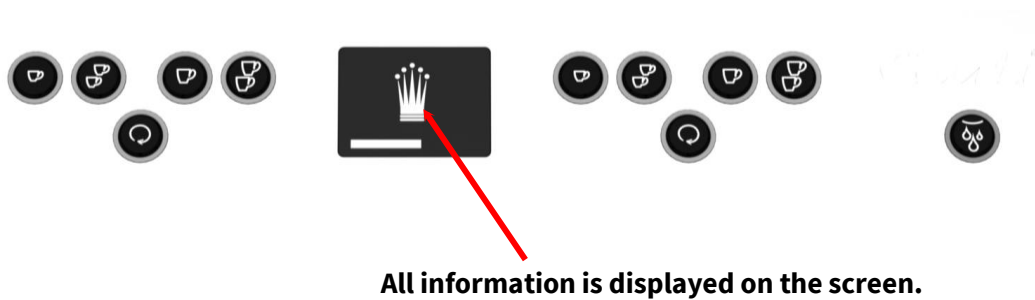
It is equipped with a bypass system that allows self-regulation.

Thus, the simultaneous operation of all groups does not impact this setting.



- **TACTILE DISPLAY:**

A main touch display allows the user to interact with the machine:
 Display of all information during product manufacturing
 Navigating the technical menus to set up the machine



6.2 **STEAM FUNCTION**

Two steams tap levers « V » are provided to allows:

- The heating of liquids by spraying steam.
- The milk foam production to create Cappuccino or Macchiato.



Preparation advice:

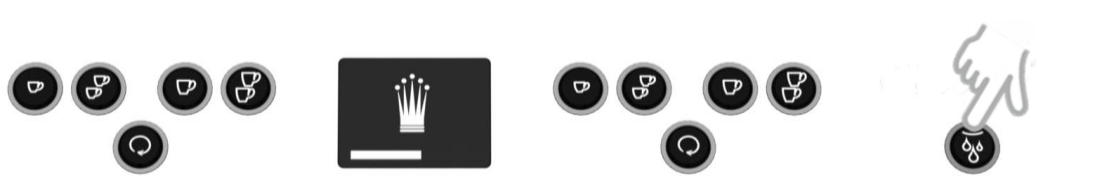
*The liquid to be heated should preferably be placed in a fairly deep container.
 The end of the steam wand should soak in the liquid but not touch the bottom of the container.
 Systematically clean the stainless steel steam wand and the outlet nozzles with a damp cloth after each use and imperatively after heating the milk, removing all traces present.
 The internal duct of the steam wand is flushed by a short downward pulse on the lever to release a jet of steam.
 Steam can also be used for sterilization and glass chambering.*



6.3 PREPARATION OF "HOT WATER / TEA" DOSES

An electric "E" control is provided to allow the preparation of infusions, grogs, etc.

Simply press the "E" button provided



Hot water is dispensed through the outlet located under the electric control "E":



The display shows:

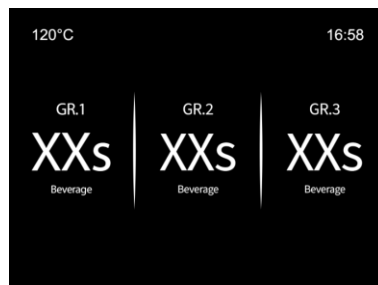
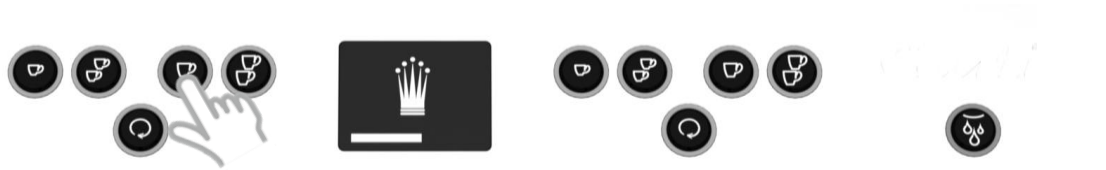


Be careful not to burn yourself with pressurized water splashes.



6.4 MAKING COFFEES BY PROGRAMMED DOSES

- Simply select one of the 4 keys of the chosen group available on the associated keyboard:



- The button for the selected dose remains lit. The other buttons in the group turn off.
- The water flows through the selected group until the programmed dose is obtained.
- Note: The 5th key is a "Continue" key*
 - It doesn't have any associated programming*
 - It flows for 3 minutes*
- The display displays the name of the manufactured product and the extraction time for each group.



- Dose discontinuation is done automatically when the scheduled dose is reached
- The extraction can be stopped at any time by pressing the product button again



6.5 TIPS FOR USING FILTERS & FILTER HOLDERS

FILTER HOLDER:

Tighten the filter-holder to the point of contact with the seal, slightly extending over it.
This ensures that the water resistance is guaranteed.

Do not try to crush the gasket unnecessarily by tightening the portafilter to the end of your tightening possibilities, as this may damage the gasket or age it prematurely.

Never remove the filter-holder while the group is running.
The end of the extraction can be seen at the coffee outlet spouts: these should no longer leak.

To empty the filters of used coffee grounds, turn the filter-holder upside down and lightly tap the edge of a wooden box.
Never hit metal or hard bodies!

Always leave the filter-holders on the group emptied of the coffee grounds, to keep them at temperature.

In the event of a prolonged shutdown, remove the portafilter from the unit and eject the worn grounds.
Dissolve a Conti detergent tablet (reference: 466662) in hot water, soak the filter holder and filter to ensure that the whole is kept clean.

FILTERS

The machine comes with two filter models: one cup (7 grams) and two cups (16 grams)
Each of the filters is associated with its respective filter-holder: 1-cup outlet or 2-cup outlet.

Filters must be kept very clean at all times:

- They should be cleaned at least once a day with hot water by removing them from the filter-holders.
- Take care to remove all residual traces of coffee.
- Make sure that the perforations in the bottom of the filter are clean.

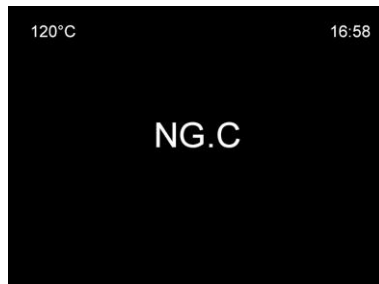


7 "NORMAL" MODE AND "ECO MODE"

7.1 "NORMAL" MODE (READY-TO-USE MACHINE)

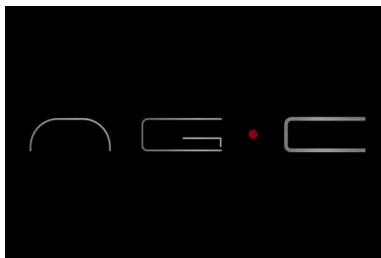
When the boiler is full and hot (set point reached), the machine is ready to use. It is in "Normal" mode.

The display shows the homepage:



If the machine is not used for 30 seconds, the following screen savers will scroll.

The machine remains ready to use, the home page returns as soon as you press a key.



7.2 ECO MODE (MACHINE STANDBY)

After the service, it is recommended to set the machine on ECO mode.

The boiler is maintained at 60°C which allows:

- To extend the lifetime of the seals by limiting temperature fluctuations.
- Energy savings if the period extends beyond 4 hours of standby.
- A quick return to operating temperature.

Here is the way to enable the "ECO" mode:

- Press the key ⑤ and then the key ③ without releasing the n°5 key.

The display shows:

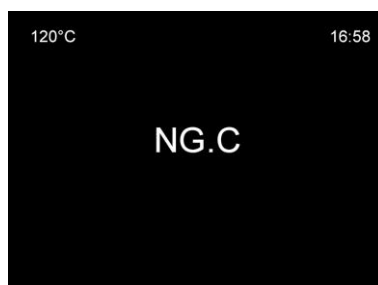


The "ECO" mode exit allows the machine to return to its operating mode very quickly, without large energy expenditures.

To return to normal operation, the following steps must be taken:

- Press the key ③

The display shows:

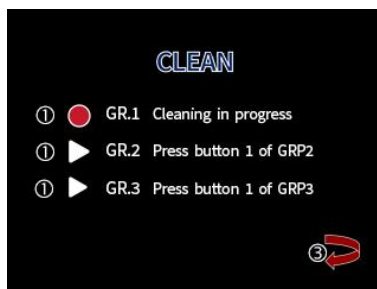
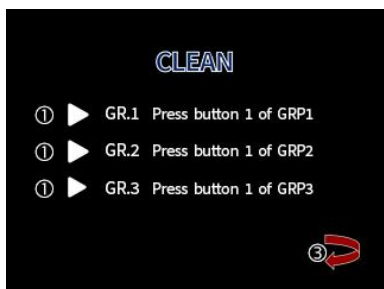


8 CLEAN MENU

From the homepage.

- Press the key ⑤ and then the key ① without releasing the n°5 key.

The display shows:



- To finish and return to the home page, press the key ③



The display shows:

- The machine is back in operation.
- Remove the portafilter and run the units for 5 seconds.

Note:

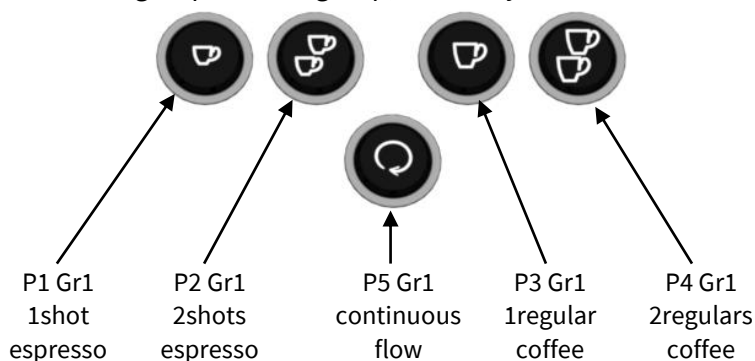
- The cycle can be stopped by pressing key 1.
- If cleaning phases are not carried, this compromises their effectiveness.
- It is possible to start this process on all 3 groups at the same time, although it is advisable to do it on one group at a time.
- Cleaning up one group does not prevent making coffees on the other groups.



9 DOSE PROGRAMMING

9.1 COFFEE DOSE PROGRAMMING

All the programming is done from group n°1 (left group), the 5 keys are defined as follows:



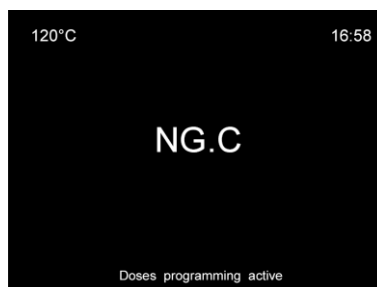
2 ways of programming are possible to set the coffee dose.

- Choose 1st group (on the left when the user is in front of the machine)
 - To program all groups at the same time with the same value.
 - The programmed key will have its equivalent key programmed identically on the others groups.
- Choose the other groups separately if the groups need to have different values.

Methodology:

- ☞ Put the ground coffee (1 dose or 2 doses according to the programmed key), in the suitable filter holder.
- ☞ Press the key n°5 "P5 Gr1" from the selected group for 5 seconds, until it's blinking, Release the key n°5 "P5 Gr1".

- ☞ Display shows "Doses programming active".



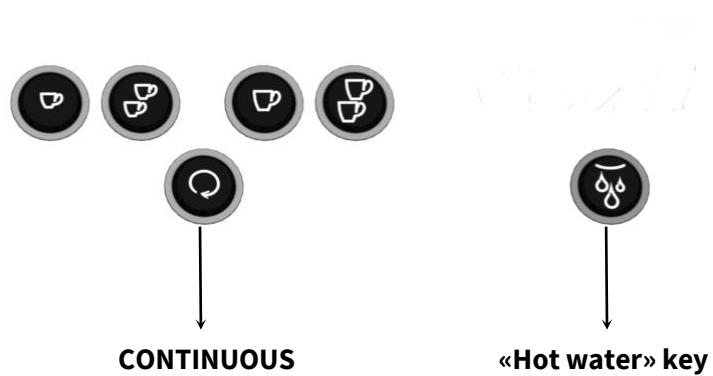
- ☞ The operation can start in a delay of 10 seconds. Otherwise, it goes back from the programming mode.
- ☞ Press the key to program to start the flow and press again when water quantity is correct. The value is directly registered.
- ☞ Then, continue programming the next key within 10 seconds, and so on for the other keys.
- ☞ You can use any coffee button after the message "Doses programming" disappears.

Note: On the factory, each machine follows a test protocol for which a program has already been completed, according to the following settings:

1 espresso = 2,5 cl / 2 espressos = 5 cl / 1 coffee = 4,5 cl / 2 coffee = 9 cl



HOT WATER PROGRAMMING



Methodology

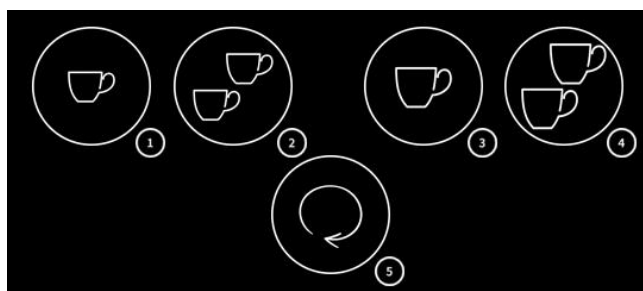
- Press key n°5 (CONTINUOUS) from the 1st group for 5 seconds, until it flashes.
- The programming operation must then start within 10 seconds, otherwise you will exit the programming mode.
- Display shows “Doses programming active”.
- Push hot water key to start the flow and push again when the water volume is correct.
- You can use hot water key after the message “Doses programming active” disappears.



10 PROGRAMMING MENU



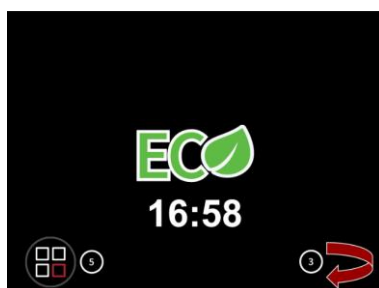
Recall of the programming keys:



To enter programming mode, follow these steps:

- Press the key ⑤ and then the key ③ without releasing the key ⑤

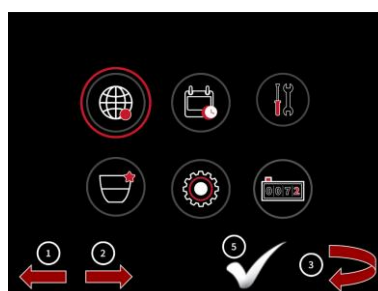
The display shows.



- Press the key ⑤



The display shows.



To navigate in the menu, press the key ① or ②.

Press the key ⑤ to enter the menu you want to edit.



10.1 LANGUAGE



This function defines the language used for display registrations.



Available languages: French (F) - Italian (I) - English (GB-USA)

Press ① or ② to switch between languages. The selected language is circled in red.

Press ⑤ to confirm and return to the previous menu.

10.2 TIME SETTING



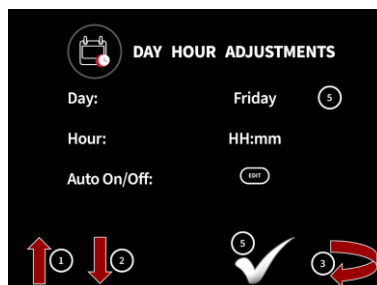
This function sets the day, time and auto on/off.

Day:

Press ① or ② to switch to the digit day.

Press ⑤ and then ① or ② until the desired day appears.

Press ③ to confirm.



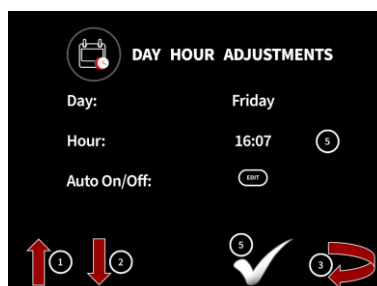
The display shows.

Hour:

Press ① or ② to switch to the time digit.

Press ⑤ then ① or ② until the desired time appears and press ⑤ then ① or ② until the desired minutes appear.

Press ③ to confirm.



The display shows:

Press 2 times ③ to confirm and return to the previous menu.



10.3 AUTO ON/OFF

This device allows the automatic switching on and off the machine for one hour.
Through a sub-menu accessible from the previous "Clock" menu.

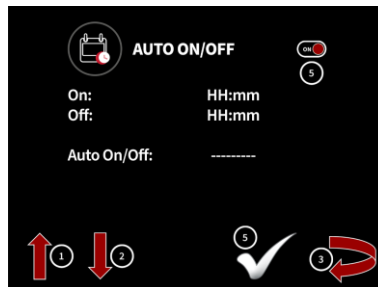
This page allows you to adjust the following 3 parameters:

On:	HH:mm	Time when the machine exits ECO mode
Off:	HH:mm	Time when the machine enters ECO mode
Day off:	Sunday	Rest day (Day when the machine remains in ECO mode)

Set **1 on and off 1**, valid for every day of the week.

Press ① or ② to switch to the auto digit On/Off.

Press 2 times ⑤ to switch from OFF to ON mode.



On :

Press ⑤ then press ① or ② until the desired time appears, press ⑤ then ① or ② until the desired minutes appear.

Press ③ to confirm.

Appuyer sur ② pour passer au digit OFF

Off :

Press ⑤ then press ① or ② until the desired time appears, press ⑤ then ① or ② until the desired minutes appear.

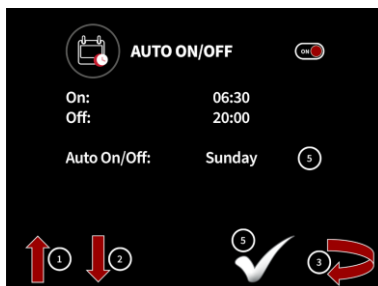
Press ③ to confirm.

Press to ② switch to Day off digit.

Day off :

Press ⑤ and then ① or ② until the rest day appears.

Press ③ to confirm.



The display shows:

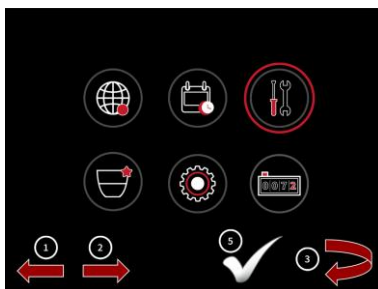
Press 2 times ③ to confirm and return to the previous menu.



10.4 INSTALLATION MENU



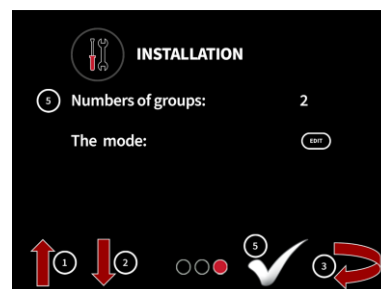
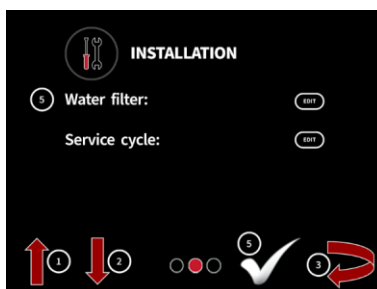
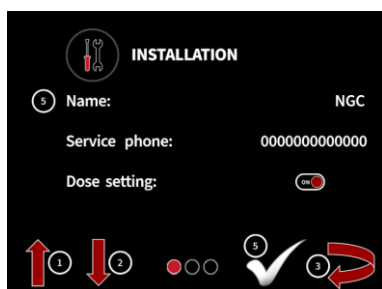
From the menu page:



Press ① or ② to switch between menus.

Press to ⑤ access the technical settings.

The display displays the INSTALLATION menu on 3 pages:



Press ① or ② to switch to the different installation menus.

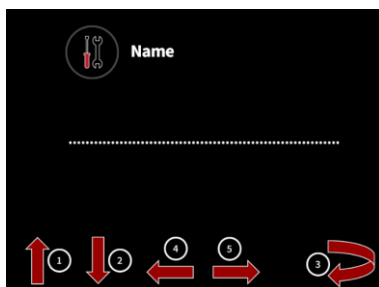


10.4.1 Name

Allows you to set the name that appears in the center of the home page.
By default, the name is “NG. C”.

To change the name:

The display shows.



Press on ③ and press on ① or ② till you get the desired character.
push on ④ or ⑤ to get following character.

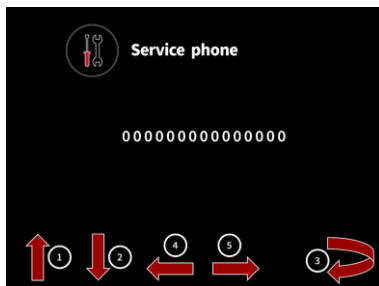
Press ③ to confirm and return to the previous menu.

10.4.2 Service phone

Allows you to define the technical service phone number to call in case of a breakdown.
By default, the number is not provided.

To modify service phone:

The display shows.



Press on ③ and press on ① or ② till you get the desired number.
push on ④ or ⑤ to get following number.

Press ③ to confirm and return to the previous menu.

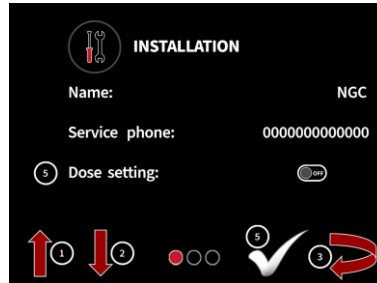


10.4.3 Dose setting

This menu allows you to block access to dose settings.
This helps reducing the risk of dose mis adjustment by restricting access.
By default, access to doses is not blocked.

To enable the feature, push on ⑤

The display shows.



Press ③ to confirm and return to the previous menu.



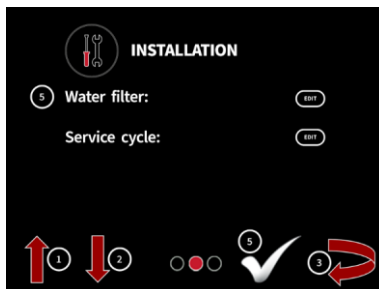
10.4.4 Water filter

Allows you to set the number of liters of water consumed before the filter regeneration.
The water consumption includes:

- Water from coffees passing through the groups.
- Water entering the steam boiler.

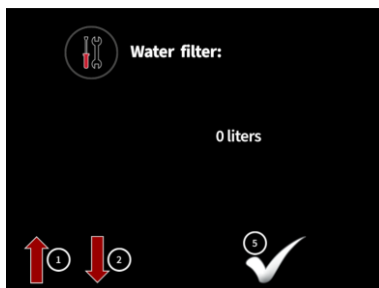
Disabled by default.

The display shows.



To adjust, push on ⑤ and on ① or ② till you get the number of liters desired.

The display shows.



Push on ③ to confirm and return to the previous menu.

Nota :

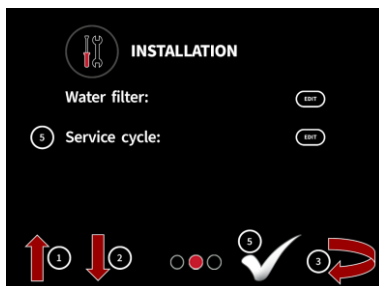
"When the programmed water volume is reached, an alarm message appears (See chapter 'Alarms'). To reset this alarm, refer to the chapter 'Resetting Alarms'."



10.4.5 Service cycle

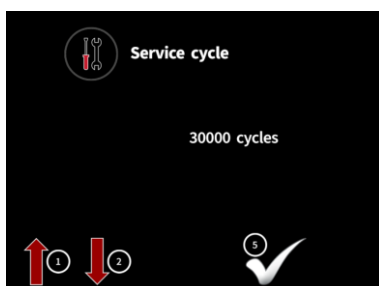
Allows you to set the number of cycles (or coffees) the machine should complete before a preventive maintenance operation is required. A default value is provided (30000 cycles).

The display shows.



To adjust, push on ⑤ and on ① or ② until the desired number of cycles appears.
(Value up to 999000 cycles)

The display shows.



Push on ③ to confirm and return to the previous menu.

Nota :

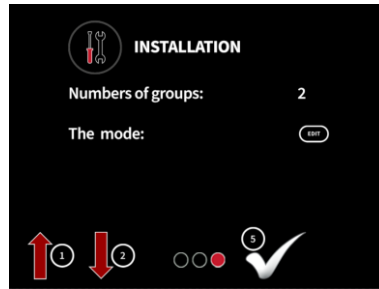
"When the programmed water volume is reached, an alarm message appears (See chapter 'Alarms'). To reset this alarm, refer to the chapter 'Resetting Alarms'."



10.4.6 Number of groups

Enables to define the number of groups on the machine. The number of groups is 2 by default.

The display shows.

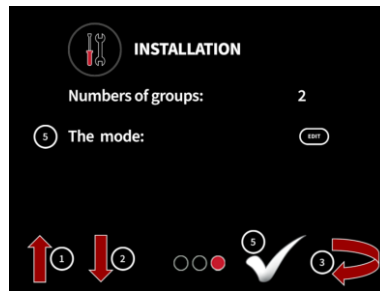


To adjust push on ⑤ and on ① or ② till you get the desired number of groups.

Push on ③ to confirm and return to the previous menu.



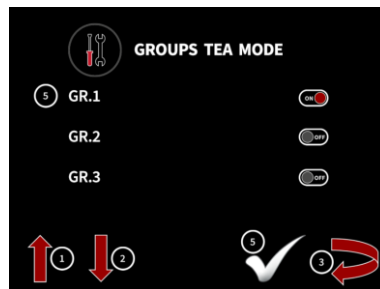
10.4.7 Tea mode:



This feature allows high quality tea extraction.

By default, tea mode is not enabled.

The display shows:



To adjust push on ⑤ to validate the tea mode on the desired group, then on ① or ② to move on to the next group.

Push on ⑤ to confirm.

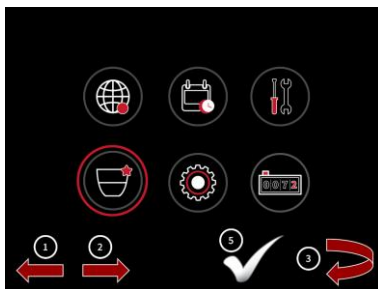
Press ③ to return to the previous menu.



10.5 COFFEE QUALITY



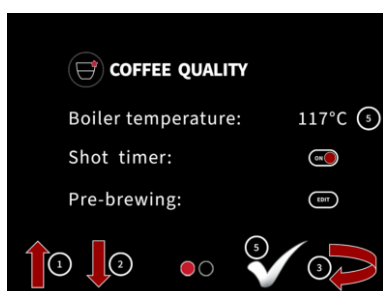
From the menu page :



Push on ① or ② to navigate.

Push on ⑤ to access “Coffee Quality” menu.

The display shows 2 pages for the “Coffee quality”:



Push on ① or ② to navigate.



10.5.1 Boiler temperature

This menu allows to adjust the temperature of the steam boiler.

By default → 117 °C.

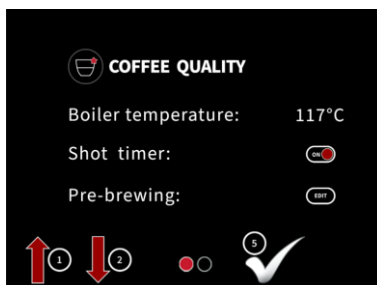
Adjustment range: 100 to 125°C

Resolution: 1°C

To adjust:

Push on ⑤ and on ① or ② till you get the desired temperature.

The display shows.



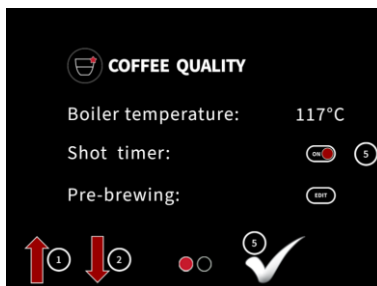
10.5.2 Shot timer

This feature allows to display the shot timer during an extraction.

Push on ① or ② to get the « Shot timer ».

Push on ⑤ for modification.

The display shows.

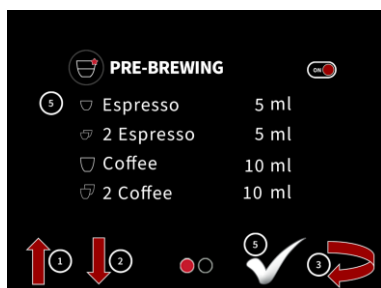
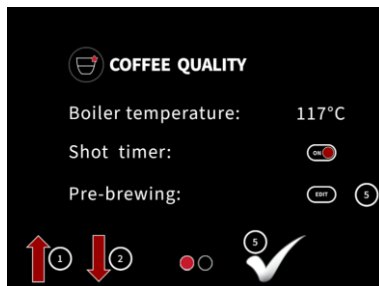


10.5.3 Pre-brewing

This menu allows to activate and program pre-brewing and infusion times for 4 doses.
By default, the feature is off.
To access to the “Pre-brewing » page:

Push on ① or ② to get to « Pre-brewing ».

The display shows.



Pre-brewing

Push on ① or ② and on ⑤ to adjust the pre-brewing water volume and push on ⑤ for validation.

Push on ① or ② for following beverage.
Adjustment from 0 to 30 ml.

Infusion

Push on ① or ② and on ⑤ to adjust the infusion time of each product and push on ⑤ for validation.

Push on ① or ② for following beverage.
Adjustment from 0.0 to 5.0 s

Push on ③ to return to the previous menu.

Nota :

All groups have the same programming for the pre-brewing.



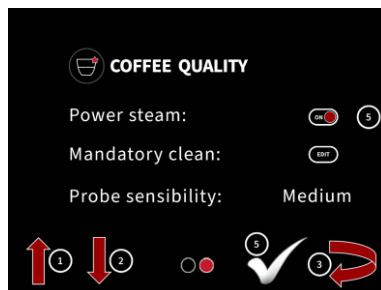
10.5.4 Power Steam

This feature allows to enable the power steam.

Push on ① or ② to get the « Power steam ».

Push on ⑤ for modification.

The display shows.



10.5.5 Probe sensibility

This menu allows to adjust the sensibility level of the level probe.

Adjustable values: LOW : For hard water (poorly softened).
 MEDIUM : For normal hardness water (7°TH or 4°KH).
 HIGH : For very pure water (mountain water, for example).

By default → **MEDIUM**

Push on ⑤ for adjustment.

Push on ⑤ to validate.

The display shows.



Push on ③ to confirm and return to the previous menu.



10.5.6 MANDATORY CLEAN

This menu allows to schedule a mandatory clean request at a specific time.

A useful feature to require daily cleaning on all groups.

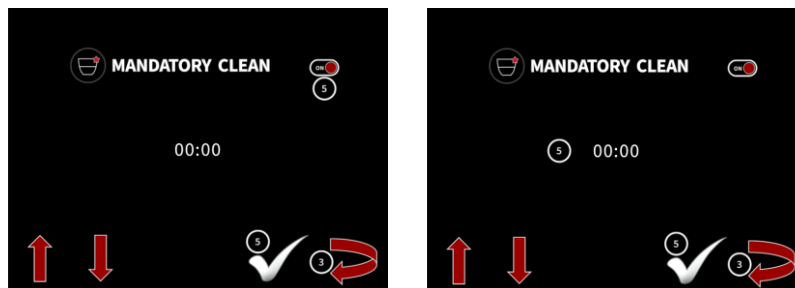
If the user does not perform this mandatory cleaning, **the machine will lock.**

By default → **OFF**

Push on ① or ② to get to « Mandatory clean ».

Push on ⑤ to switch from OFF to ON mode and enter the time parameter

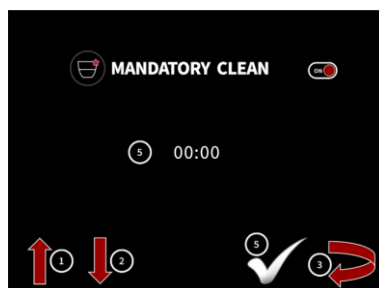
The display shows.



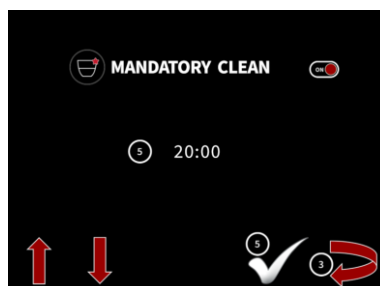
Push on ↑ or ↓ to adjust the time.

Push on ⑤ and on ① or ② to adjust the hour.

Push on ⑤ and on ① or ② to adjust the minutes.



Push on ⑤ to validate.
The display shows.



Push 2 times on ③ to confirm and return to the previous menu.



10.6 MAINTENANCE



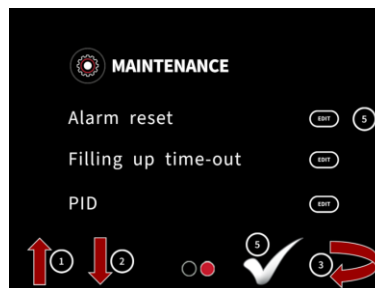
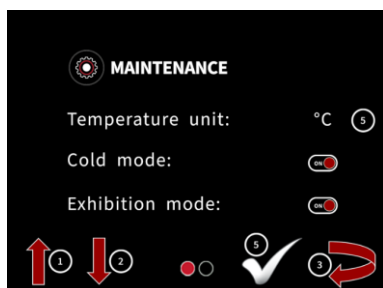
From the menu page:



Push on ① or ② to get to another menu.

Push on ⑤ to enter “Maintenance” menu.

The display show the menu « Maintenance » on 2 pages :

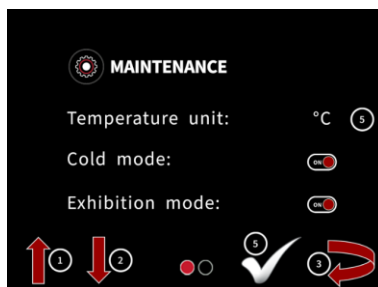


10.6.1 Temperature unit

This menu allows you to set the unit of measurement for all temperatures: °C (Celsius) or °F (Fahrenheit).

By default → °C

Push on ⑤ to change.



Nota :

When you change the unit, all values are automatically converted.



10.6.2 Mode Cold

Check chapter « troubleshooting tools » / « Cold mode ».

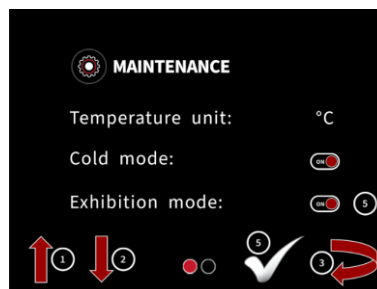
10.6.3 Exhibition mode

This allows the machine to remain fully powered on without being active:

It does not fill the boiler.
It does not heat the boiler.
No alarms are triggered.

Bu default → OFF.

The display shows.



10.6.4 Alarm reset

Check the chapter « Alarm reset »

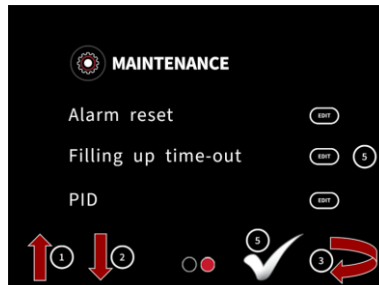


10.6.5 Filling up time-out

This menu allows to allocate a maximum time for the boiler filling up process. Beyond this time, the machine goes into a safety mode, and an alarm message appears on the display.

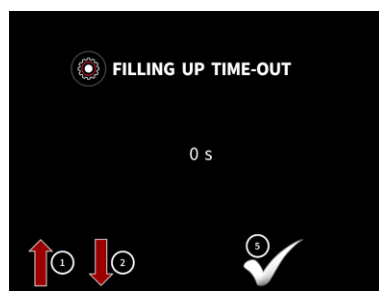
The time-Out adjustable in seconds.

By default, the value is 360s



Push on ⑤ to enter the “Filling up time-out” feature.

Push on ① or ② to adjust.



Push on ⑤ to confirm and return to the previous menu.



10.6.6 PID

The PID optimizes temperature stability in the steam boiler. It's a ROBUST feature that limits overshoots through a compromise between SPEED and PRECISION.

Operating principle:

Measurement every 2 seconds of the actual temperature compared to the set temperature. A reevaluation of the power to be supplied to the heating element between 0% and 100%. This reevaluation is weighted by 3 coefficients K_p , K_i , K_d , which are as follows:

K_p : The temperature

K_d : The rate of temperature change

K_i : The average temperature over the last 10 evaluations

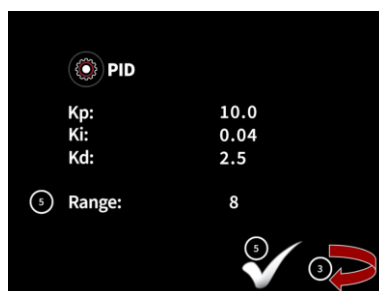
The reevaluation is carried out within the range of 5°C around the set value.

Beyond that, the machine operates at full power.

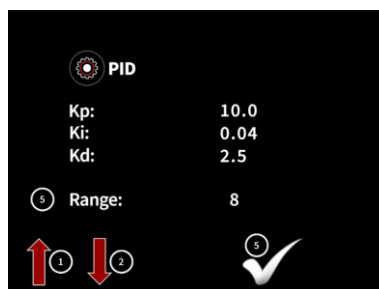
Only the « Range » is adjustable.

Push on ⑤ to enter PID feature.

The display shows.



Push on ⑤ and on ① or ② to adjust the range.



Push on ⑤ to validate.

The display shows.

Push on ③ to confirm and return to the previous menu.

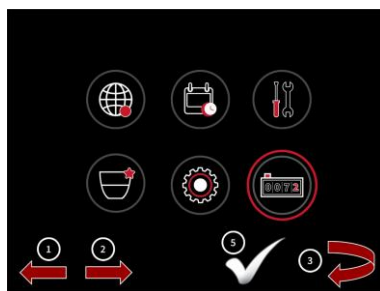
Nota: If “Range” = 0, no PID any more.



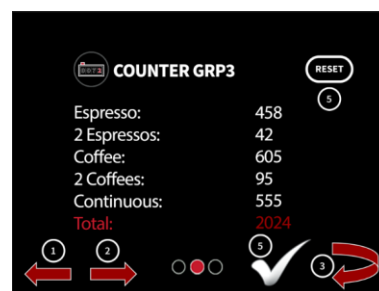
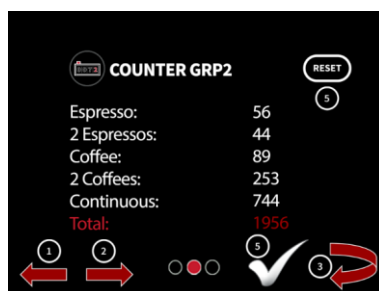
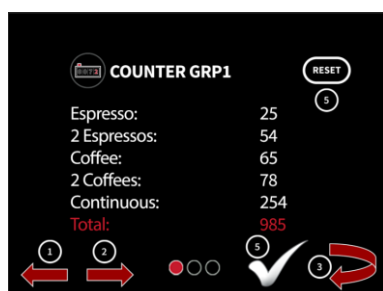
11 COFFEE COUNTERS



From the menu page :



The counters are displayed group by group:



Push on ⑤ to reset the counter.
Each group resets independently.
Push on ② to get to following group.

This menu allows to know the number of products consumed on each group:

- The number of single espresso (1 cup)
- The number of double espresso (2 cups)
- The number of coffee (1 cup)
- The number of double coffee (2 cups)
- The Total is not reset

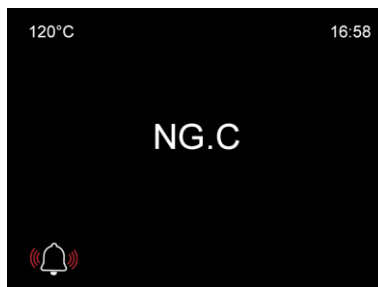
Nota :

*The maximum countable number is 65535 for each button. After that, the counter resets to 0.
Pressing the 'Double espresso' or 'Double coffee' button counts as 1 product but 2 products in the total.*



12 MENU ALARME

- From the homepage.



➤ Cleaning alarm:

When the message "**compulsory cleaning**" appears on the display, the user need to start an automatic cleaning on each groups (one after the other).

If it does only partially (1 group instead of 2, for example) or if it does not, the machine will no longer be used and the message "Warning cleaning groups" remain permanently displayed on the display.

This message will disappear when all groups have been cleaned.

The machine comes back to NORMAL MODE.

➤ Cleanning Gr : X SVP

After 250 coffees on one group, the display shows «**Please Cleaning Gr: X**»

The machine is usable, but the message will not disappear until the cleaning has not been made. To remove the alarm, simply run an automatic cleaning (see chapter: use)

Nota: Automatic cleaning is always possible even if there is no message on the display.



➤ **Filling up time out:**

The high level probe SN did not detect water within the programmed time (250 sec).

Possible reasons: Water inlet solenoid valve must be cleaned.
 Water inlet solenoid valve does not work.
 Water high level probe is disconnected.
 Water inlet tap is closed.

Solution: After checking up, cut the mains then put it back.

➤ **Boiler temperature alarm message**

The electronics detected a temperature > 140 °C for more than 5 seconds in the boiler.

Alarm message disappears when temperature decreases 2°C under the limit.

➤ **Temperature probe open**

The electronics does not detect the temperature probe.

Possible reasons: Reconnect or replace the temperature probe.
 Check temperature probe cable, replace if necessary
 Mother board may be damaged
 Check the connector on the mother board

➤ **Flowmeter alarm Gr X**

The electronics does not receive group X flowmeter information.

Possible reasons: No water in the flowmeter
 Damaged cables
 Damaged flowmeter
 Coffee too fine
 The water inlet tap is closed.



➤ **Water softener maintance alarm:**

When programmed water quantity is reached, display shows «**change filter**» together with the programmed telephone number (machine keeps on working).

After servicing the water filter, please do the following:

- Switch off the machine (ON / OFF button).
- Press continuously buttons n°3 and n°4 on the left group while
- Switch on the machine (ON / OFF button)
- Display shows «**Filter Reset**».

Counter restarts from 0.

➤ **Service:**

When service cycles number is reached, display shows «Service» together with the programmed telephone number for service (change check valve gaskets, limiter, steam tap gaskets...).

After servicing the machine, please do the following:

- Switch off the machine (ON / OFF button).
- Press continuously buttons n°1 and n°2 on the left group while
- Switch on the machine (ON / OFF button)
- Display shows «**Service Reset**».

Counter restarts from 0.

➤ **The machine does not turn on:**

The klaxon is open and/or general relay is not supplied.

Possible reasons: The heating boiler operate without water
General relay coil is switched off.

Solution: Disconnect the machine from the power
Reset manually the klaxon
Check for water in the boiler
Restart the machine.



13 ALARMS RESET

From the menu page.

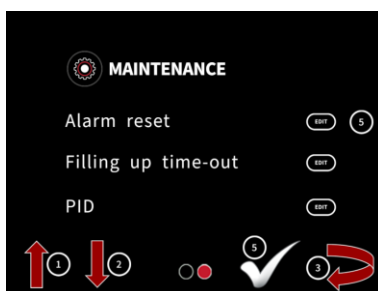


13.1 « WATER FILTER » RESET

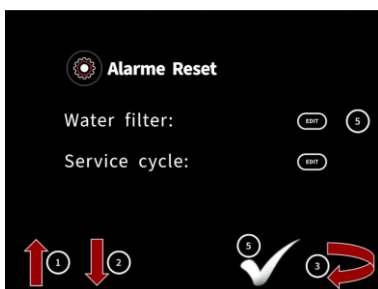
When the filter is replaced, delete the message. To do it, enter the « Maintenance » menu.

Push on ① or ② to navigate.

Push on ⑤ to enter the « Maintenance » menu.



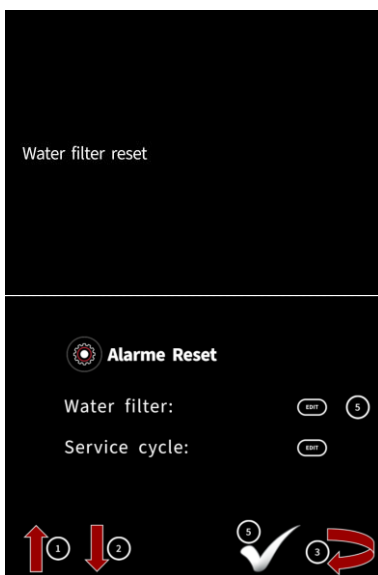
Push on ⑤ to enter the “Alarm reset” menu.



The display shows.

Push on ⑤ to reset the alarm.

The display shows.



After few seconds,
the display shows.

Push on ③ to get out.

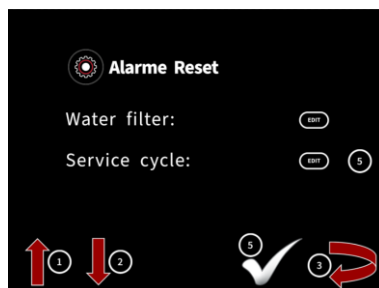


13.2 « **SERVICE CYCLE** » **RESET**

When the service is done, delete the message. To do it, enter the « Maintenance » menu.

Push on ⑤ to enter the “Alarm reset” menu.

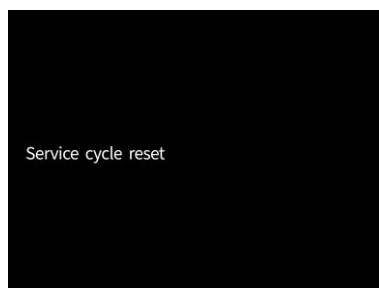
The display shows.



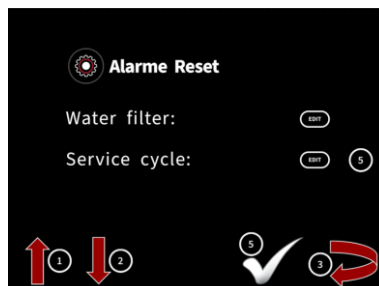
Push on ② to access to « Service cycle » feature.

Push on ⑤ to reset the alarm.

The display shows.



After few seconds,
the display shows.



Push on ③ to get out.

13.3 **FACTORY RESET**

A factory reset can be attempted in case of unexplained malfunction of the machine.
This procedure results in a complete loss of all system data.

Enquire with your agency.

Push on ①+③+⑤

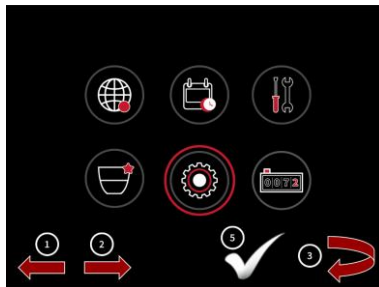


13.4 COLD MODE

A cold mode is available on the machine. It allows the machine to operate while cold. This is very useful for a technician who wants to intervene without risking burns.

Cold mode enabling:

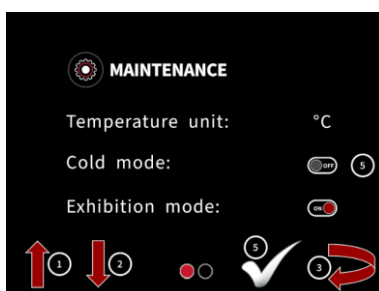
From the menu page:



Push on ① or ② to navigate.

Push on ⑤ to enter the “Maintenance” menu.

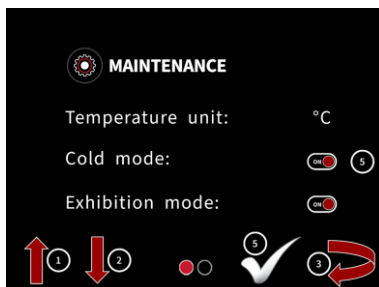
The display shows.



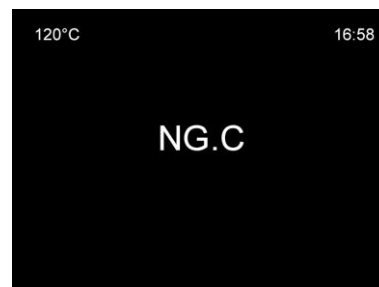
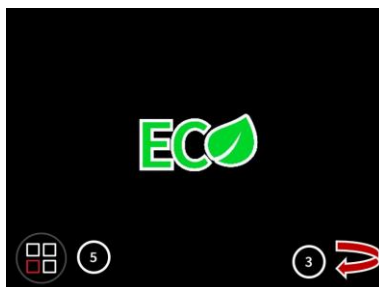
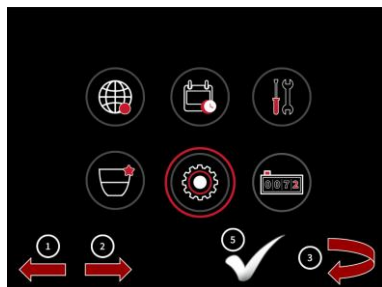
Push on ① or ② to access to « Cold mode » feature.

Push on ⑤ to enable the “Cold mode”.

The display shows.



Push 2 times on ③ to validate, and push on ③ and ① to get to the main page.



The machine on « Cold mode ». It operates normally **but remains cold** (no heating up)



14 ELECTRONIC DIAGRAM

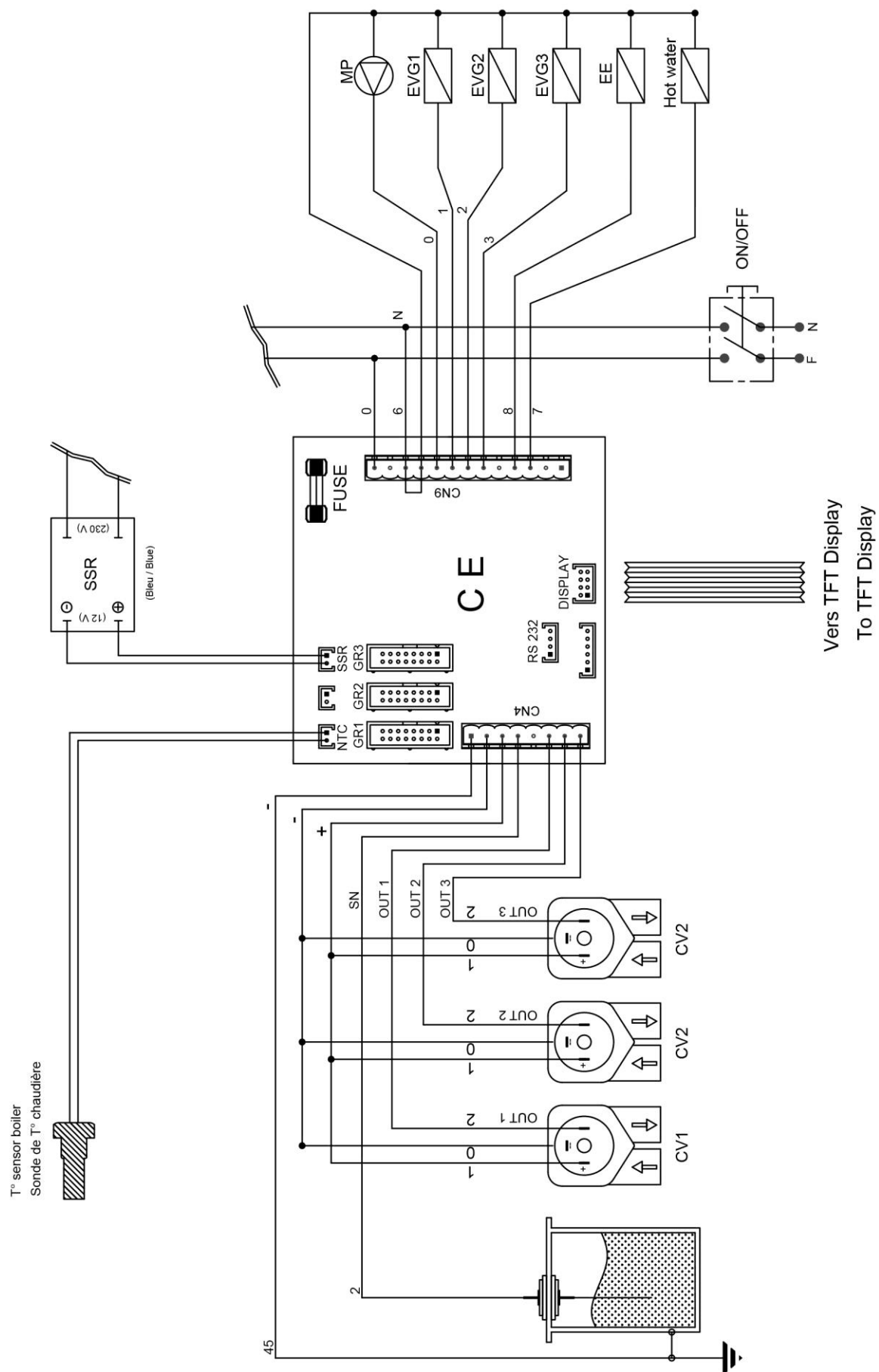
14.1 DESIGNATION OF USEFUL CODES

REF.	DESIGNATIONS	DESIGNATION
CE	Carte électronique	<i>Electronic controller</i>
CN	Connecteur tableau	<i>Panels connector</i>
CV	Compteur volumétrique	<i>Flow meter</i>
EE	EV entrée eau	<i>Solenoid valve water feeding</i>
EVG	EV de groupe	<i>Group solenoid valve</i>
MP	Motopompe	<i>Motor/pump</i>
RC	Résistance chauffage	<i>Immersion heater</i>
SSR	Relais statique 12Vdc – 230Vac 25A	<i>Solid state relay 12Vdc – 230Vac 25A</i>
ST	Sonde de température	<i>Temperatur sensor</i>
TS	Thermostat de surchauffe	<i>Overheating thermostat</i>

	CODE COULEUR FILS	CABLE COLOUR CODE
1	marron	<i>Brown</i>
2	rouge	<i>Red</i>
3	orange	<i>orange</i>
4	jaune	<i>Yellow</i>
5	vert	<i>Green</i>
6	bleu	<i>Blue</i>
6f	bleu foncé	<i>Blue dark</i>
7	violet	<i>violet</i>
8	gris	<i>Grey</i>
9	blanc	<i>White</i>
0	noir	<i>black</i>

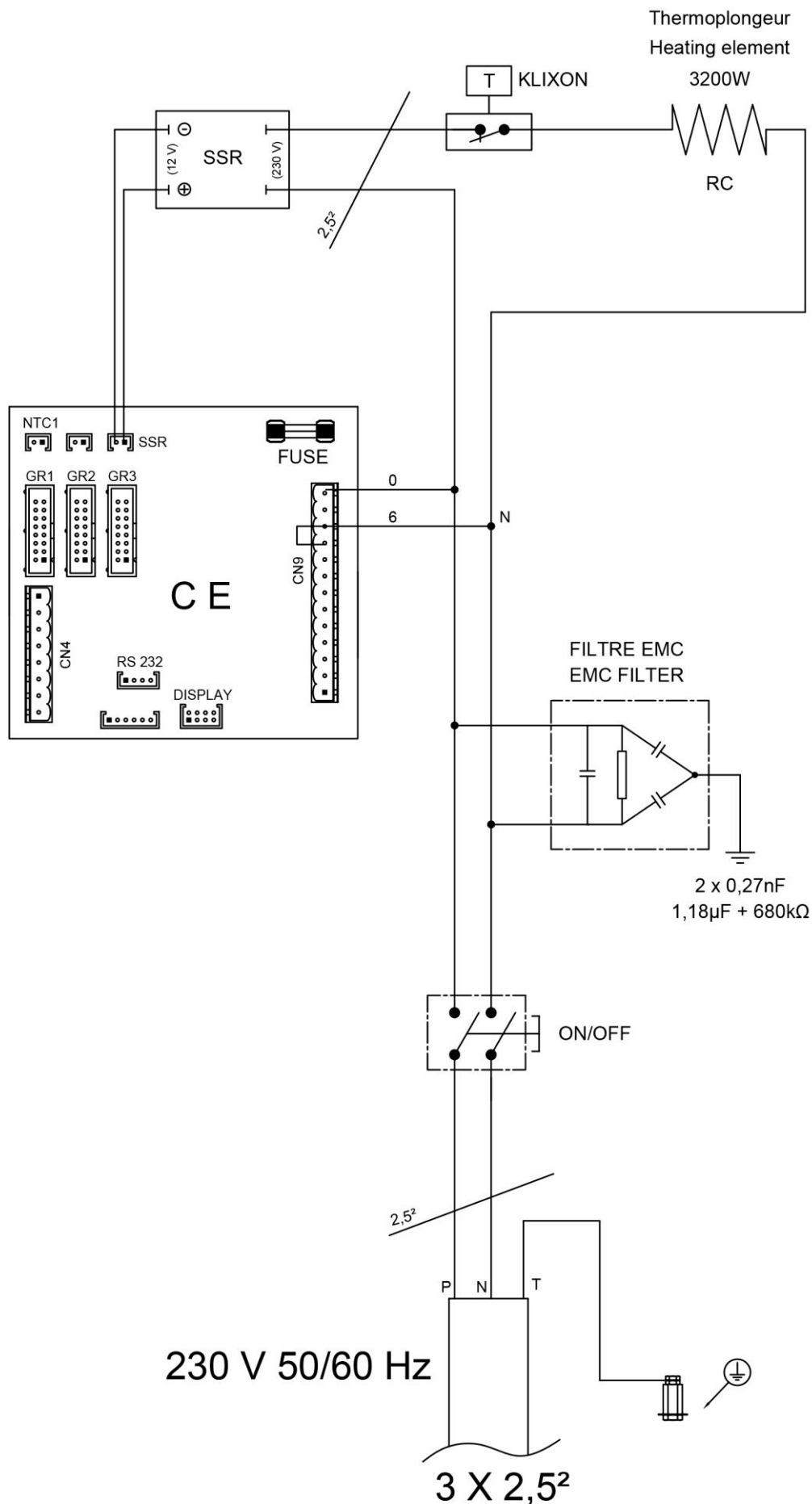


14.2 ELECTRICAL CIRCUIT 230V 50/60HZ (ALL MODEL)



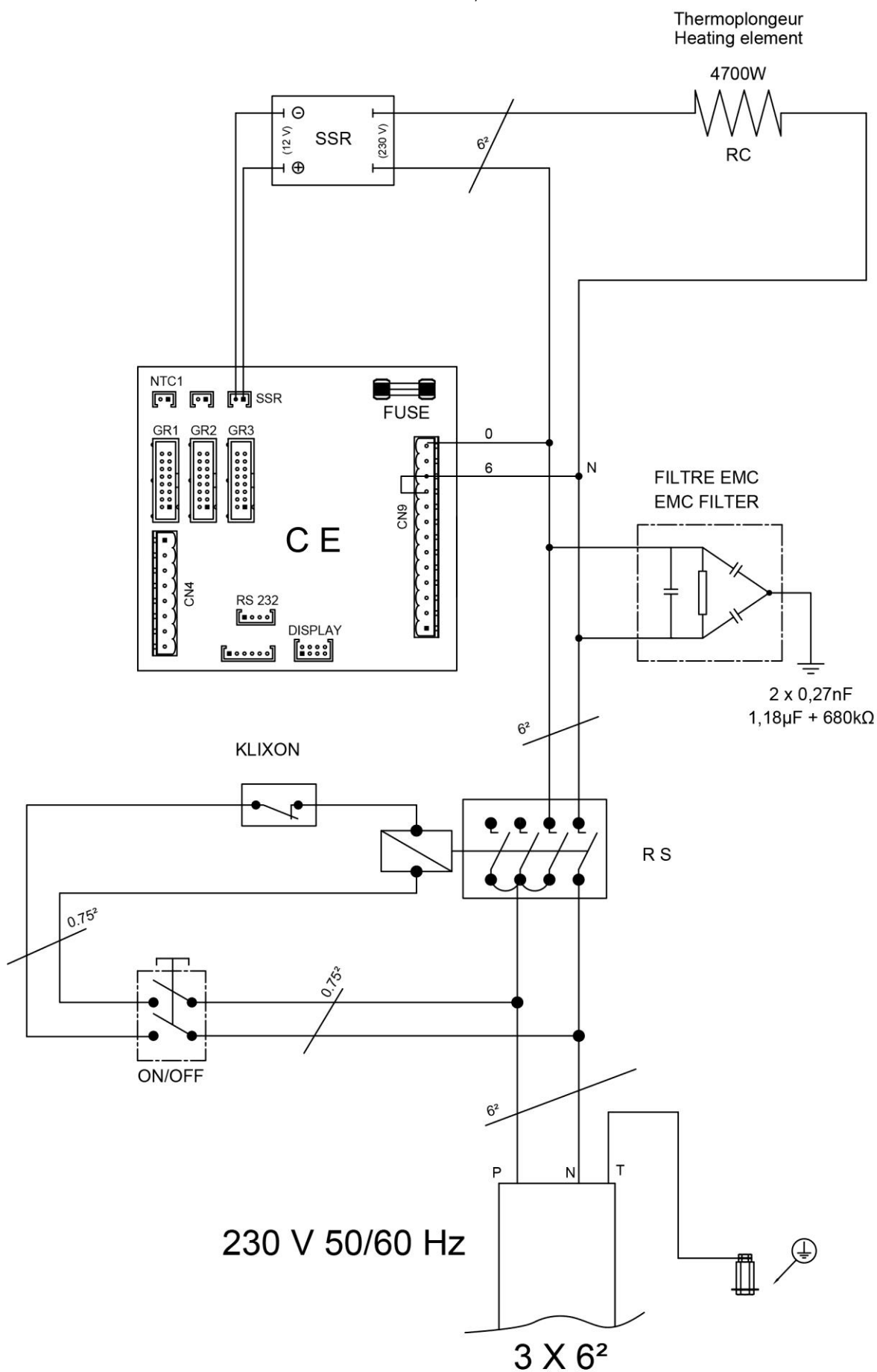
14.3 ELECTRICAL HEATING CIRCUIT NGC2 MONOPHASE

Monofase 230V 50/60Hz 3300W



14.4 ELECTRICAL HEATING CIRCUIT NGC3 MONOPHASE

Monofase 230V 50/60Hz 4700W

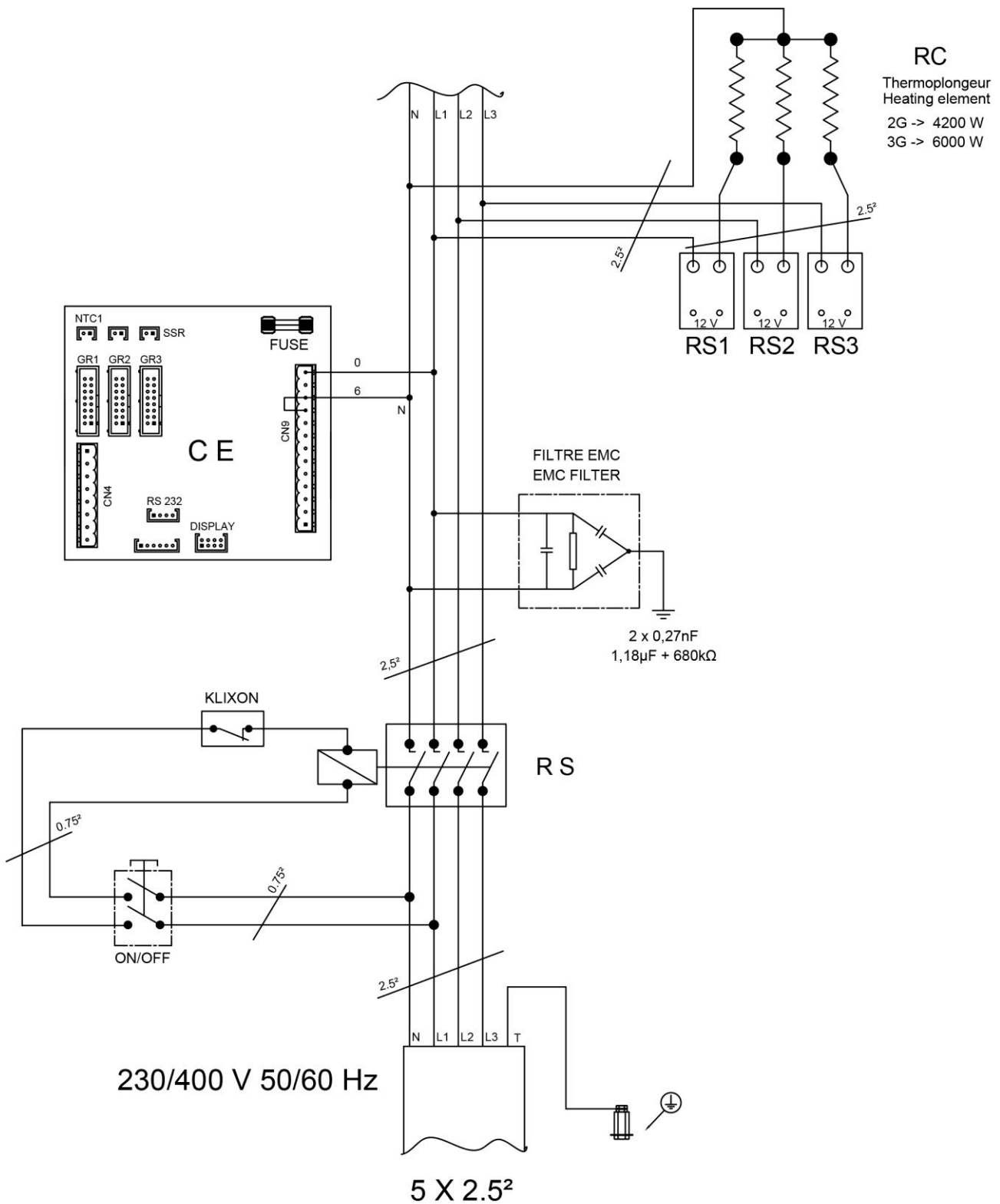


14.5 ELECTRICAL HEATING CIRCUIT NGC2 - NGC3 TRIFASE

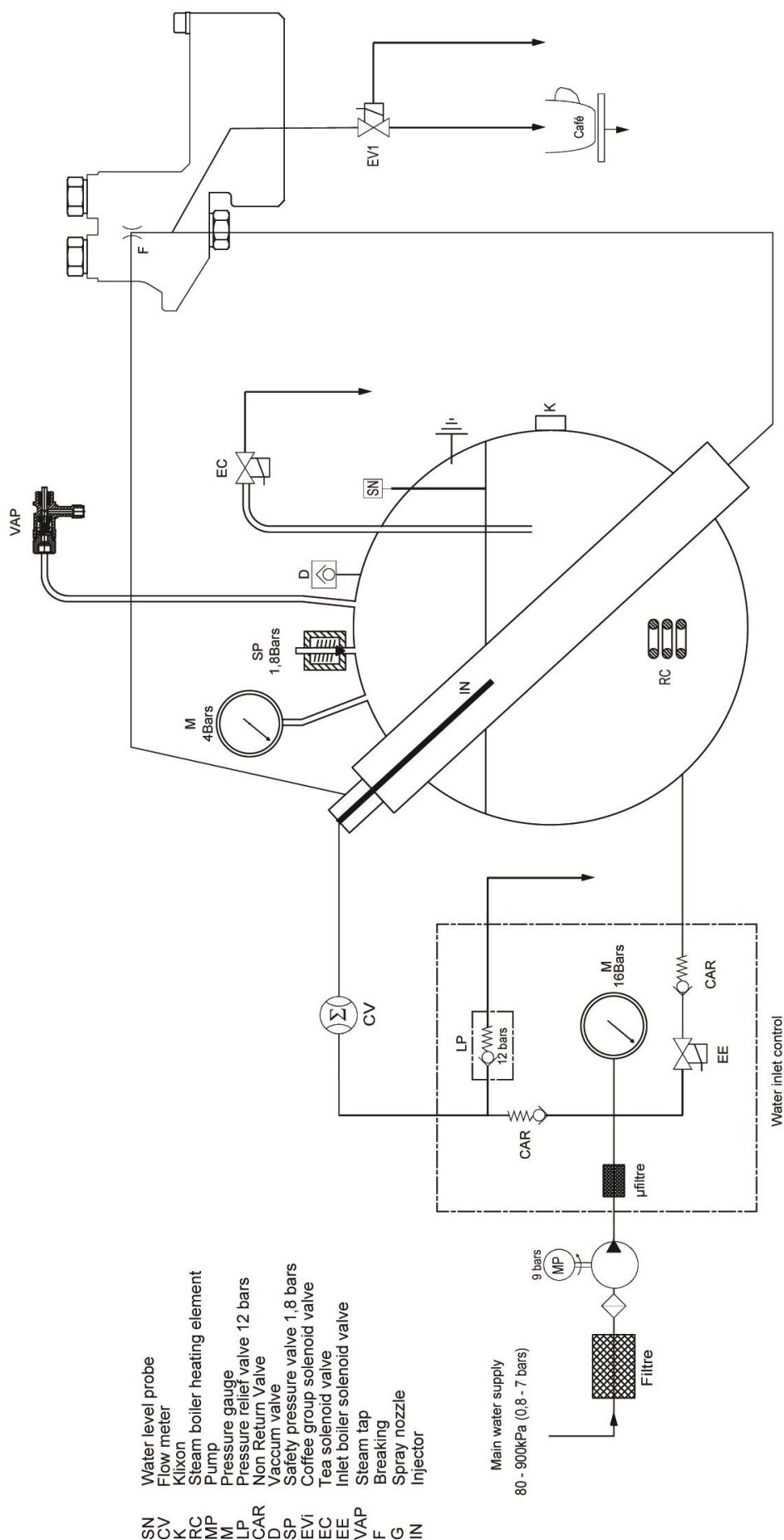
Trifase 230/400V 50/60Hz

2G 4200W

3G 6000W



15 HYDRAULIC SCHEMA



16 OPTION AVAILABLE

16.1 SOLO KIT

In case of insufficient pressure on the water system, or if the water supply is non-existent, you must use separate water tanks.

The machine must operate in SOLO mode:

- The filling up must be parametered "WITH PUMP" (P1 + P4)
- The machine draws its water from the bucket provided.

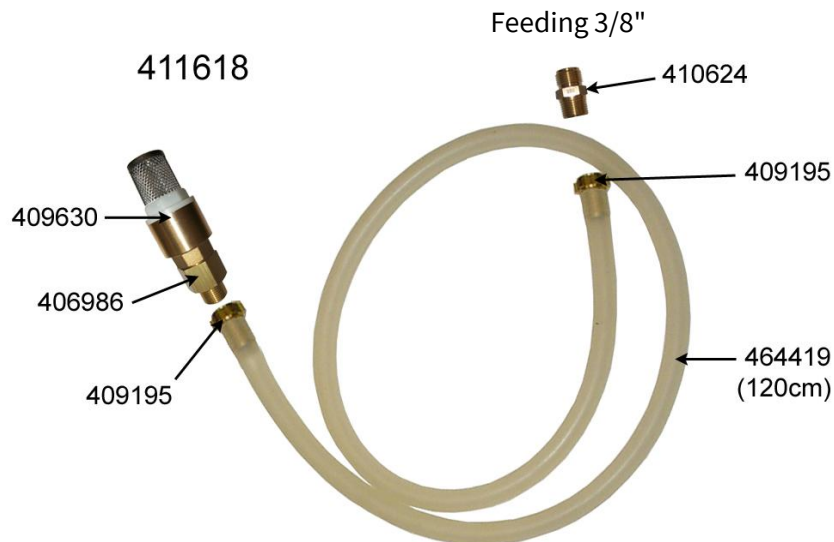
We offer for that a solo kit No. 411618 (order separately)

This kit consists of the following elements:

- 1 corrugated input to connect at the inlet of the machine (409195)
- 1 hose to connect to the corrugated input (464419)
- 1 "strainer + non return valve" to connect to the other side of the hose (409630+406986)

The role of the strainer is to ensure that the pump remains primed again.

The role of the strainer is to ensure that the pump remains primed again.



It is compulsory to fill up manually the silicone pipe with water before first starting the machine for the pump to prime properly, without risk of deterioration.





Sacome, La Ruche, 1 Avenue Albert II, B.P.119 98007 Monaco Cedex
E-mail: conti@conti-espresso.com
Tél : +377 93 10 43 43
www.conti-espresso.com