ESTD 1956

Conti

MONACO

NGE – NGEC

TECHNICAL DOCUMENTATION

Edition 05/2026

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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.

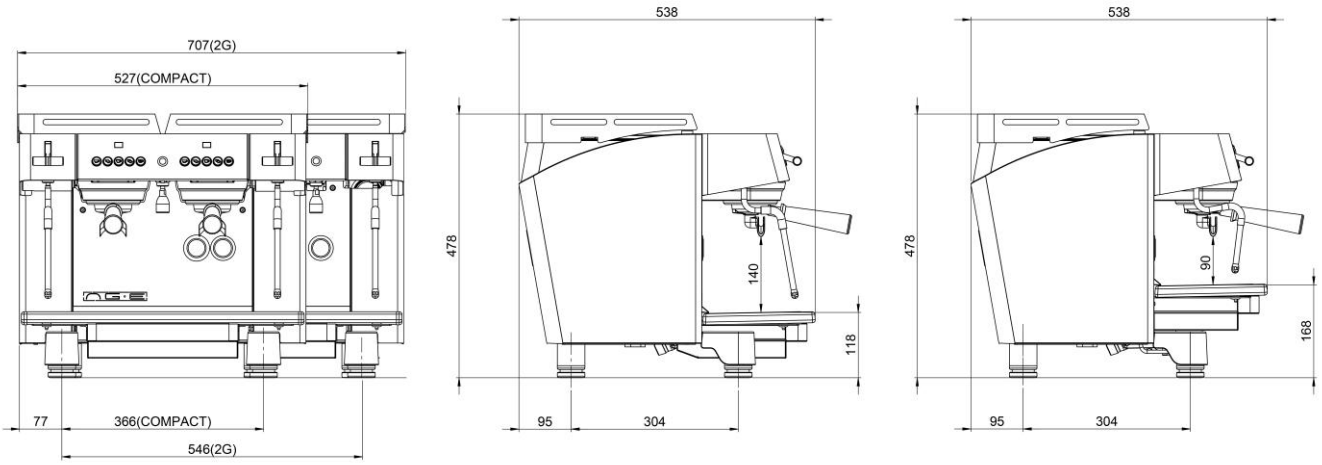
2 TECHNICAL DOCUMENTS

MACHINE TYPE	HEATING POWER (Watt)	INSTALLED POWER (Watt)	POWER USED (Ampères).	
			230V	400V
NGE2	3300	3500	15	--
NGEC	2400	2600	12	--

CAPACITY OF BOILER IN LITERS		
	NGE2	NGEC
TOTALE	10	7
VOLUME of HOT WATER	7,5	5
VOLUME of STEAM	2,5	2

	WEIGHT (Kg)	WEIGHT WHEN WORKING (Kg)
NGE2	60	70
NGEC	50	57

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 ruming 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°TH ou >4 °KH), it is recommanded:
  - To use a water treatment
  - To regenarate 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 ° French (° TH) or the ° German (° 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 measurment is ° Carbonate (°KH)

There are 2 types of water treatments:

- Salt water softeners
  - They treat the total water hardness (°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 > à 10°TH ou > 5 °GH

- Resins filters :
  - They treat the Carbonat hardness water (°KH)
  - By fixing carbonate ions on the resins.
  - Often fitted with microfiltration and carbon filtration.
  - To use when the Carbonat Hardness is > à 6°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

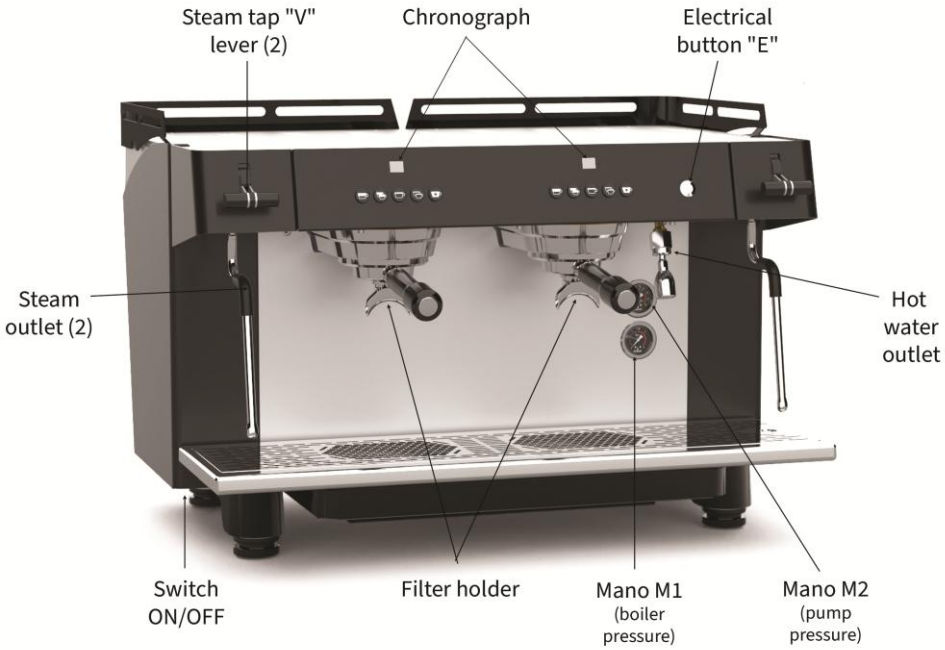
5 OPERATION

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 lever 'V' are open.
- Switch on the machine.
- Left chronograph show software version: example "1.3" for 4 seconds.
- Then the boiler fills up automatically without heating.
- And the keyboard lights scroll and both chronograph shows 0.0.
- When the boiler is full, the machine starts heating up.
- Close the steam taps lever '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.

- **CHRONOGRAPH:**

1 chronograph for each group indicate the extraction time during coffee extraction. The value remain on screen until the next extraction which restart from 0.

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 dose is temporized.

Be careful not to burn yourself with pressurized water splashes.

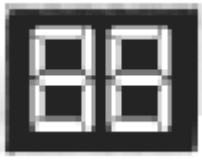
6.4 MAKING COFFEES BY PROGRAMMED DOSES

- 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*

- During the extraction the chronograph shows the extraction time.



- The dose stop automatically when the programed volum 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 chronograph show:

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 chronograph show:

Exit fom the ECO mode allows the machine to return to its operating mode very quickly, without large energy expenditures.

To return to normal operation, just press key ③:

The chronograph show:

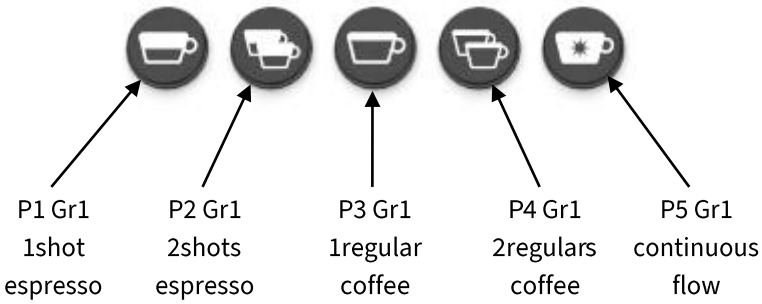
8 CLEAN MENU

- A cleaning cycle can be launched on each group.
- Press the key ⑤ then the key ① without releasing the key ⑤
- The machine launch an automatic cleaning cycle. Acting the pump and the coffee valve 5 sec ON / 2 sec OFF for 10 cycles.

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 they need 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 from the selected group for 5 seconds.

☞ When it's blinking release the key n°5: you are in programing mode

☞ 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.

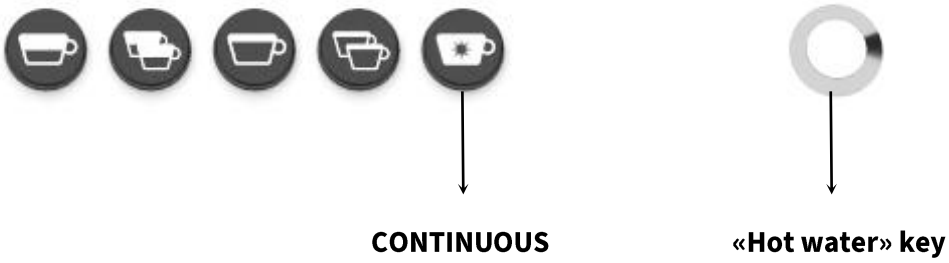
☞ Then, continue programming the next key within 10 seconds, and so on for the other keys.

☞ When the key n°5 stop blinking, the machine has turned batch to normal mode: you can use any coffee button.

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

9.2 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.
- 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 key n°5 stop blinking.

9.3 AUTOMATIC CLEANNING OF COFFEE GROUP

The cleaning of coffee group is made group by group, preferably at the end of service, before the machine is stopped or put in "ECO" mode, using this specific function managed by the machine.

The procedure for cleaning coffee groups is as follows:

- Remove the filter-holder from the group and clean the seal with the supplied brush.
- Insert blind filter (provided with the machine) in the filter-holder.
- Put a detergent tablet (CONTI brand code: 466662) in the blind filter, and engage the filter-holder in the group.
- Keep pressing key n°5 (P5 Gr1), then press the key n°1 (P1 Gr1).
- The cleaning process starts automatically, with somes ON/OFF cycles. The purpose is to disolve the tablet, and release the cleaning agent on the coffee group circuit and on the coffee valve.
- When the cleaning cycle is finished, and the group is available again.
- Repeat this operating mode on each group.

The cleaning cycle can be interrupted, pushing any key of the concerned group. But, you will lost the following steps, and will compromise the cleaning efficiency.
It is possible to perform an automatic washing cycle for each group independently

9.4 RESETTING DATA

If necessary, it is possible to re-configure the machine with data by default.

The procedure is as follows:

- Turn off the power supply of the machine.
- Keep pressing simultaneously the keys “P1 Gr1” + “P3 Gr1” + ”P5 Gr1” of the 1st group
- Turn the machine on.
- Release the button “P1 Gr1” “P3 Gr1” ”P5 Gr1”
- The button “P1 Gr1” “P3 Gr1” ”P5 Gr1” are lit
- Then turn OFF the machine
- Then turn ON the machine to return to normal operation

10 PROGRAMMING THE MACHINE

10.1 PROGRAMMING OF PRE-BREWING (1SEC ON / 1SEC OFF)

The pre-brewing is only available on the 4 dosed button.
The pre-brewing value are fixed to 1"ON/1"OFF for all the doses button
The user can choose to keep or to remove the pre-infusion.

- To remove pre-brewing:
  - Turn off the machine.
  - Keep pressing the key "P2 Gr1" then turn the machine on.
  - When the LED of the key "P2 Gr1" key lights, turn off the machine again.
  - Wait a few seconds then turn on the machine.

- To set the machine with pre-infusion:
  - Turn off the machine.
  - Keep pressing the key "P1 Gr1" then turn the machine on.
  - When the LED of the key "P1 Gr1" lights, turn off the machine again.
  - Wait a few seconds then turn on the machine.

10.2 PROGRAMMING OF BOILER TEMPERATURE

The factory temperature setting is adjusted at 120 °C by default.
The temperature can be set between 105 ° C and 124 ° C, to change the setting proceed as follows:

- Turn off the machine.
- Keep pressing the keys "P3 Gr1 +" P4 Gr1 + "P5 Gr1" and turn on the machine.
  The setting T° is shown on the 1st chronograph (only numbers of ten and unit)
  Example: 117°c will be shown as 
  (the digit of hundred is never shown)

- To change the set point you have to press the key "P1 Gr1" to decrease (- key) or "P2 Gr1" to increase (+ key). For each action on the key the value is changed by 1 unit.
  The new set value is shown on the 1st chronograph

To exit the programming phase, turn off and on again the machine.

10.3 PROGRAMMING THE FILLING UP THE BOILER WITH THE PUMP

If the machine is connected to a water network, it is not necessary to use the pump for filling the boiler (minimum inlet pressure 0,15 MPa).
If the machine is connected to a water tank, to fill the boiler you have to activate the pump.

The machine is configured by default "without pump" to fill the boiler.

If the technician wants to use the pump to fill the boiler, it must proceed as follows:

- Settings of the machine to use the pump to fill up the boiler:

- Turn off the machine.
- Keep pressing the keys "P1 Gr1" + "P4 Gr1" and turn on the machine.
- When the LEDs "L1 Gr1" + "L4 Gr1" light, turn off the machine again.
- Wait a few seconds then turn on the machine.

If the technician wants to eliminate the use of the pump when filling boiler, you must proceed as follows:

- Settings of the machine to suppress the pump to fill up the boiler

- Turn off the machine.
- Keep pressing the keys "P2 Gr1" +"P4 Gr1" and turn on the machine.
- When the LED "L2 Gr1" + "L4 Gr1" light, turn off the machine again.
- Wait a few seconds and then turn on the machine.

10.4 SUMMARY OF PROGRAMMABLE FUNCTIONS

P1 Gr1					pre_brewing active
	P2 Gr1				pre_brewing disabled
		P3 Gr1	P4 Gr1	P5 Gr1	temperature setting
P1 Gr1			P4 Gr1		filling up with pump
	P2 Gr1		P4 Gr1		filling up without pump
P1 Gr1		P3 Gr1		P5 Gr1	resetting data

11 DESCRIPTION OF ALARMS

These alarms occur when there is a defect on the machine, they are indicated differently depending on the nature of the defect.

➢ ALARM TIME OUT 1ST FILLING

If the electronic does not receive information from the SN level probe for more than 360 seconds (at the 1st filling). All the leds off all groups flash to indicate failure.
And the left chronograph shows. E1.

➢ ALARM FLOWMETER

If, during the distribution of coffee, the mother board does not receive pulses from a flowmeter for more than 6 seconds, the led button of the concerned group start flashing to indicate failure. After 90 seconds, the machine automatically stops the solenoid valve of the concerned coffee group and the pump also.
And the left chronograph shows E5.

➢ ALARM TEMPERATURE SENSOR DISCONNECTED

If the mother board receive bad information from the temperature sensor for more than 2 seconds, the electronics automatically cut off the solid state relay and all the leds from all groups flash to indicate default.
And the left chronograph shows E2.

The temperature sensor is

- In short circuit
- Or disconnected

➢ OVER TEMPERATURE ALARM

If the electronics detects a temperature > 140 °C for more than 5 seconds in the boiler, all the leds of all groups flash at the same time. The management of the heating is stopped automatically.
And the left chronograph shows E4.
The alarm is removed when the temperature drops below 125 ° C.

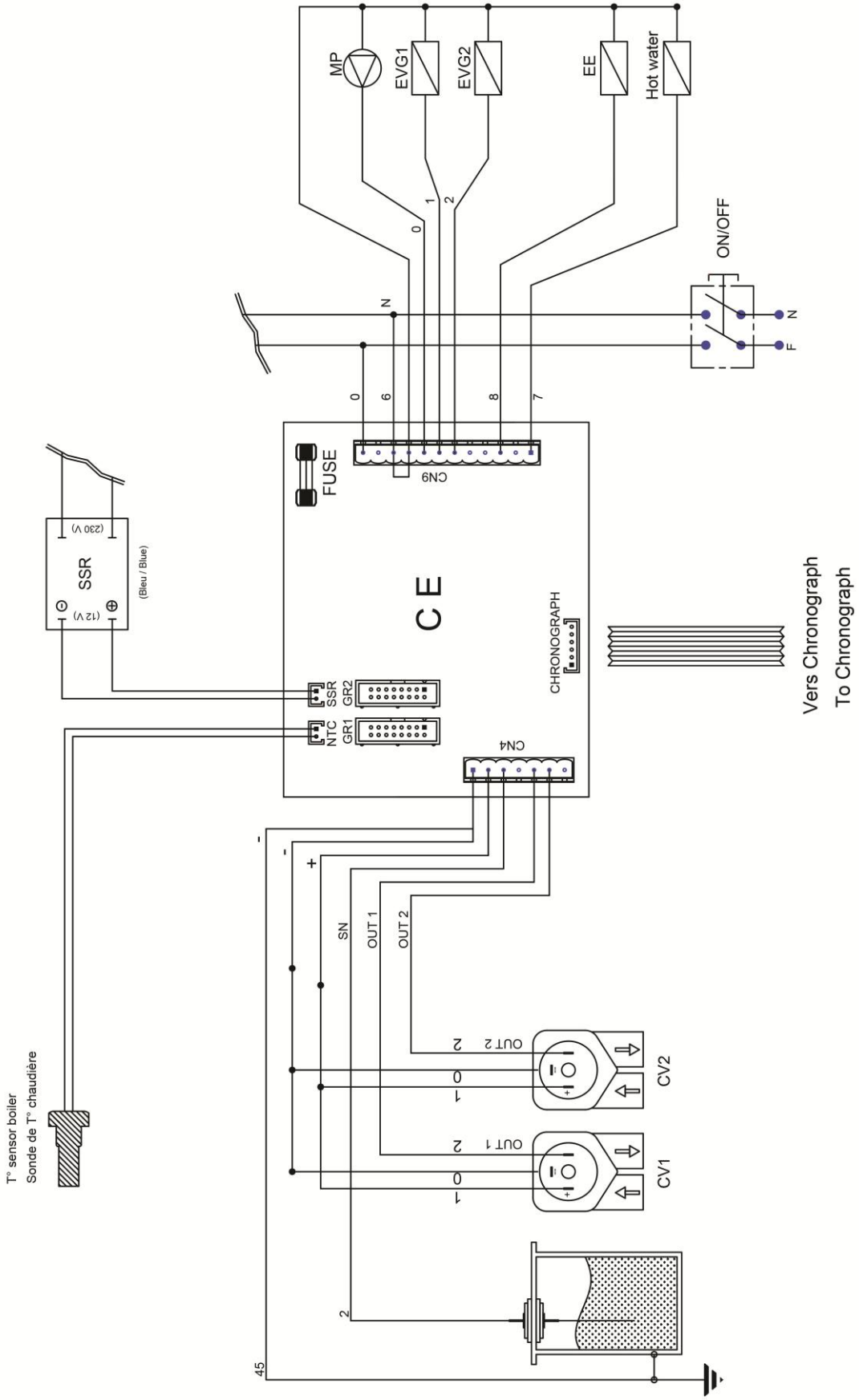
12 ELECTRONIC DIAGRAM

12.1 DESIGNATION OF USEFUL CODES

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

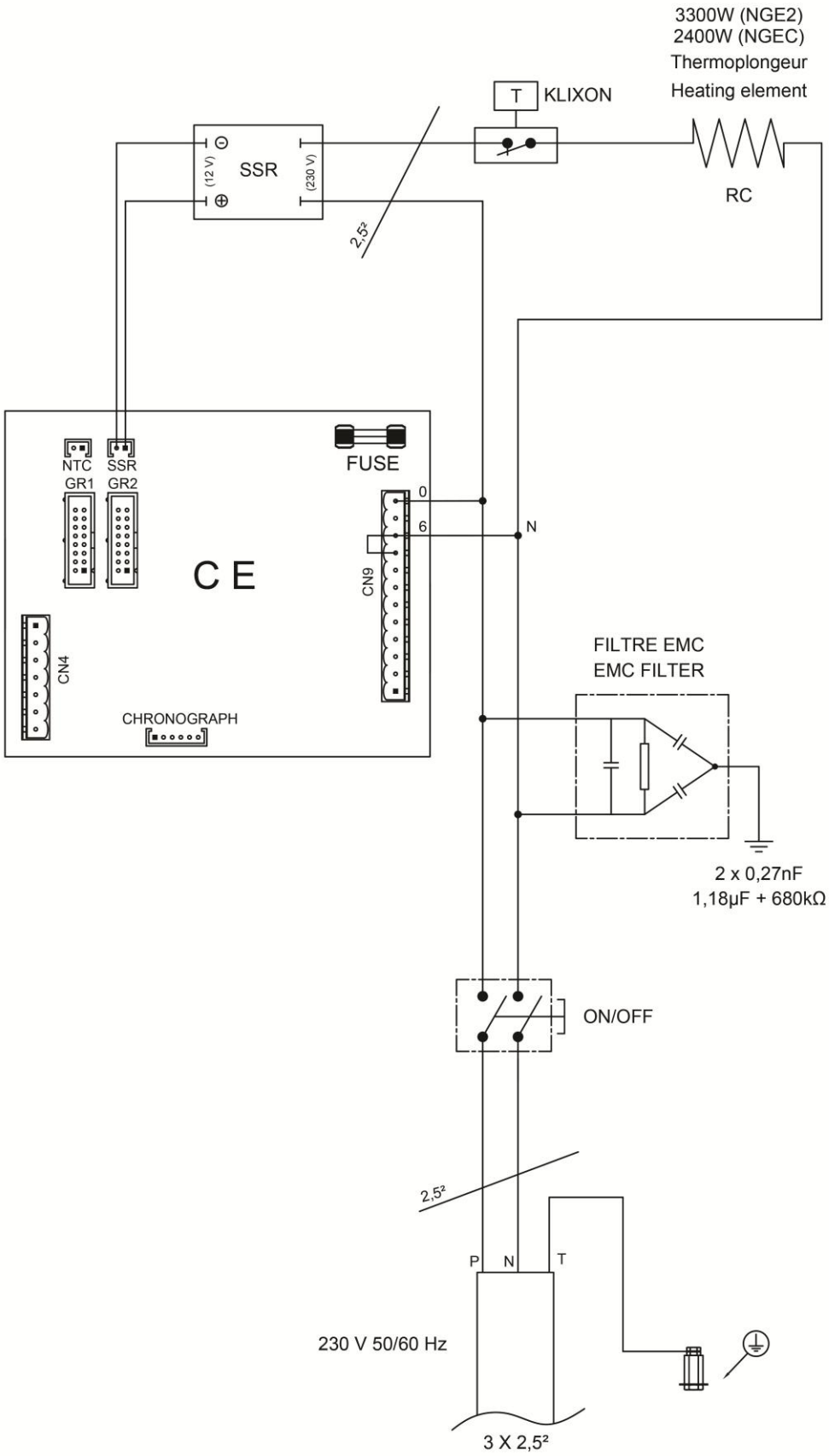
	CODE COULEUR FILS	*CABLE COLOUR CODE*
1	marron	*Brown*
2	rouge	*Red*
3	orange	*orange*
4	jaune	*Yellow*
5	vert	*Green*
6	bleu	*Blue*
6f	bleu foncé	*Blue dark*
7	violet	*violet*
8	gris	*Grey*
9	blanc	*White*
0	noir	*black*

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

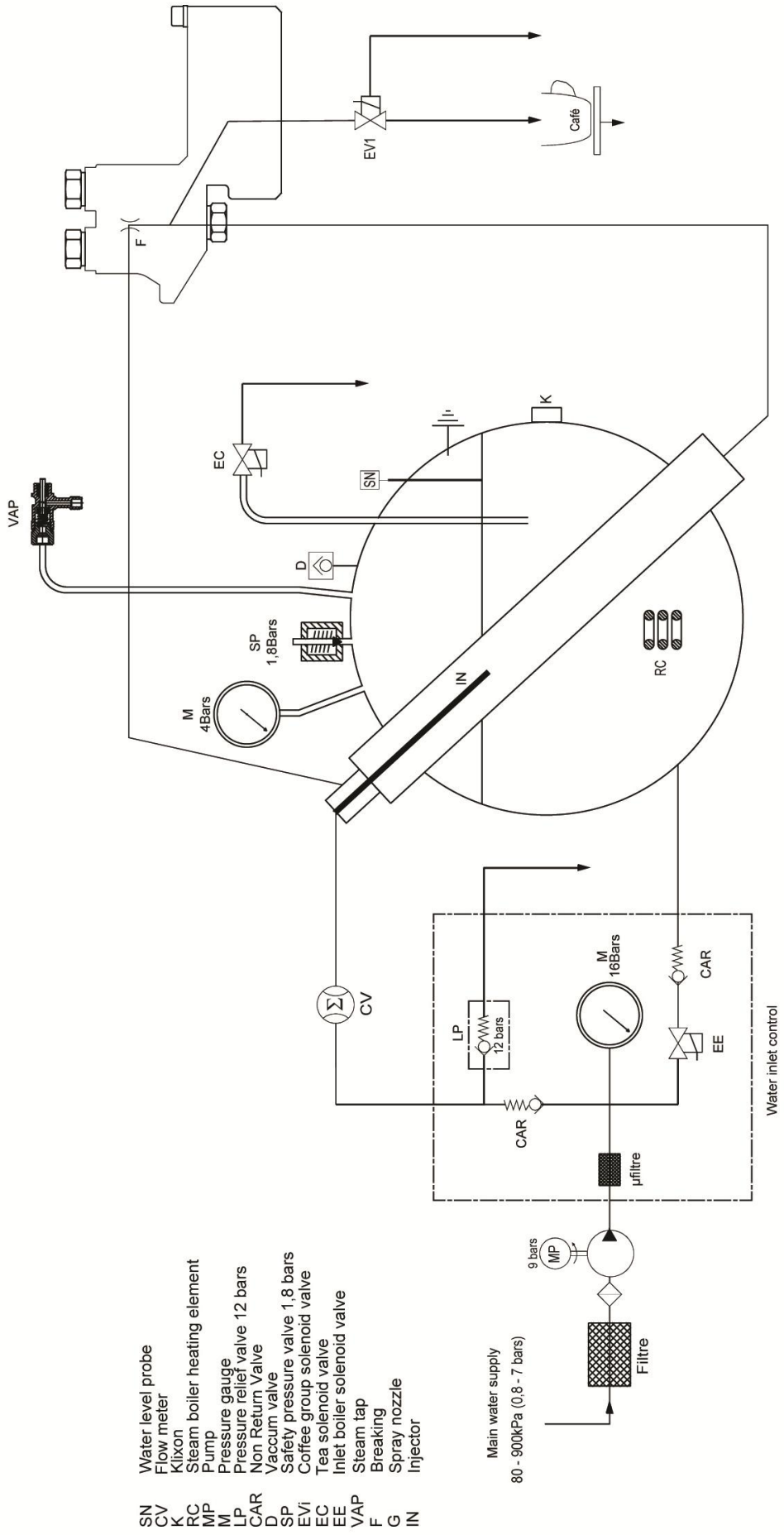


12.3 ELECTRICAL HEATING CIRCUIT NGC2 MONOFASE

Monofase 230V 50/60Hz



12.4 HYDRAULIC SCHEMA



13 OPTION AVAILABLE

13.1 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 operates in SOLO mode:

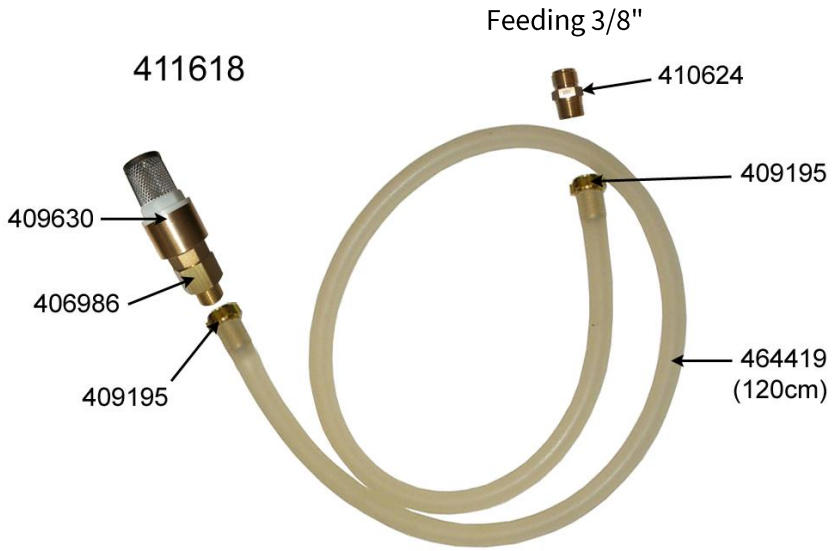
- The filling up must be parameter "WITH PUMP" (P1 + P4)
- The machine draws its water from the bucket provided.

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.

ESTD 1956

Conti

MONACO

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