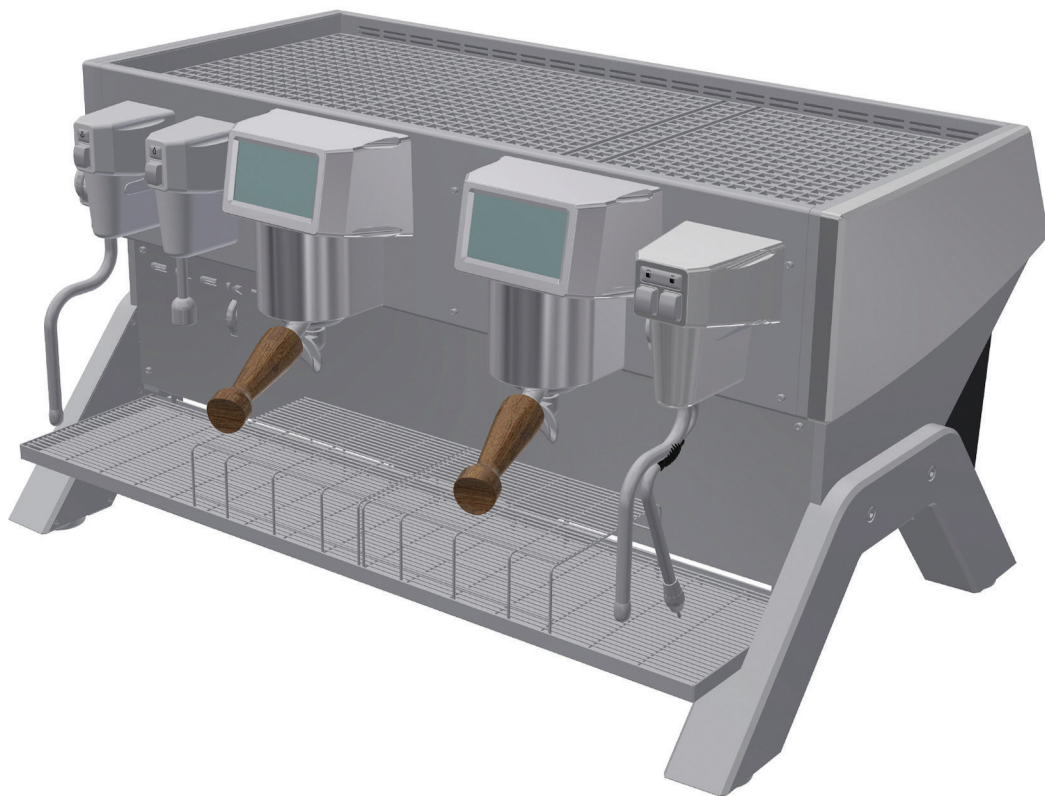


ELEKTRA

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

INDIE

Professional coffee machines



EN

INSTRUCTION MANUAL



Translation of the original instructions

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1. GENERAL INSTRUCTIONS

THESE INSTRUCTIONS ARE BOTH FOR THE USER AND THE COFFEE MACHINE INSTALLER/MAINTENANCE TECHNICIAN

The manual is divided in three parts as displayed below:

GENERAL INSTRUCTIONS

These instructions are intended for users and technicians

OPERATION INSTRUCTIONS

These instructions are intended for end users

TECHNICAL INSTRUCTIONS

These instructions are intended for technicians

1.1 INTRODUCTION

1.1.1 Manufacturer identification data

THE MANUFACTURER:

VEA GROUP S.P.A.

OPERATIONAL FACILITIES:

VEA GROUP S.P.A.

Via Industriale, 1 - 24040 Chignolo d'Isola (BG) Italy

Tel: +39 035 4949555

info@veagroup.com

veagroup.com



WARNING:

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

1.1.2 Other addresses:

SERVICE VEA GROUP

Via Industriale, 1

24040 Chignolo d'Isola (BG) Italy

Tel: +39 035 4949555

service@veagroup.com

CARIMALI ITALIA

Via De Gasperi 17/19, 20020 Lainate (MI) Italy

Tel: +39 02 9374740

italia@carimali.com

carimalitalia.com

CARIMALI CHINA

1801 Pangjin RD, Building T2, Wujiang Suzhou China 215200

Tel: +86 0512-63199566

suzhou.catering@carimali.com

carimalichina.com



WARNING:

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

1.1.3 Recipients



USER

Person assigned to basic machine operation and cleaning. This manual is an essential component for using the machine. It is intended for the end user and contains instructions and information on how to use the machine safely. However, reading this manual does not exempt the recipients from reading, carefully and in full, all the instructions provided together with the machine and available on the manufacturer's official website <https://service.vea.ventures/it> , after registering in the customer area.

1.1.4 Machine identification data and nameplates

Each machine is identified by a CE plate placed under the base on which the reference data of the same are indelibly written. These reference data must always be provided when communicating with the manufacturer or service centres.



IMPORTANT:

The nameplate must not be removed for any reason, under penalty of forfeiture of the guarantee and the unavailability of spare parts, which cannot be identified.

1.1.5 Purpose of this manual

The present manual was drafted to provide the user with all the information necessary to use the machine correctly, highlighting the residual risks and also those deriving from an incorrect use. This manual is integral part of the machine it is supplied with and must be carefully stored. As this manual refers to different models, the pictures contained in it are to be considered purely indicative. Some of them may show details or particulars which are slightly different from those of the product in your possession, without however changing the essential information. The manufacturer reserves the right to update this manual without prior notice should it be deemed necessary.

1.1.6 Safety warnings

To ensure a correct and safe use of the product it is necessary to follow the indications contained in the **Quick Guide** supplied together with the machine.

The manufacturer is not responsible for any damage resulting from failure to observe the warnings contained in this manual.

1.1.7 Symbols



HAZARD:

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



WARNING:

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



IMPORTANT:

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

1.2 INTENDED USE

INDIE is a professional machine designed and built only and exclusively to dispense:

- Coffee
- Cappuccino
- Milk
- Steam

- Hot water

The machine is intended for professional use, such as:

- Refreshment areas in shops
- Refreshment areas in offices
- Refreshment areas in other environments
- Holiday farms
- Hotel / Motels
- Bed & Breakfast



WARNING:

The machine is not intended for outdoor use.



IMPORTANT:

Any liability that may arise from the incorrect use of the machine, or in any case from a use that is different from the instructions given in this manual, shall not be accepted, in particular if the instructions for use, maintenance and cleaning of the machine are not observed, which may lead to poor hygienic conditions.

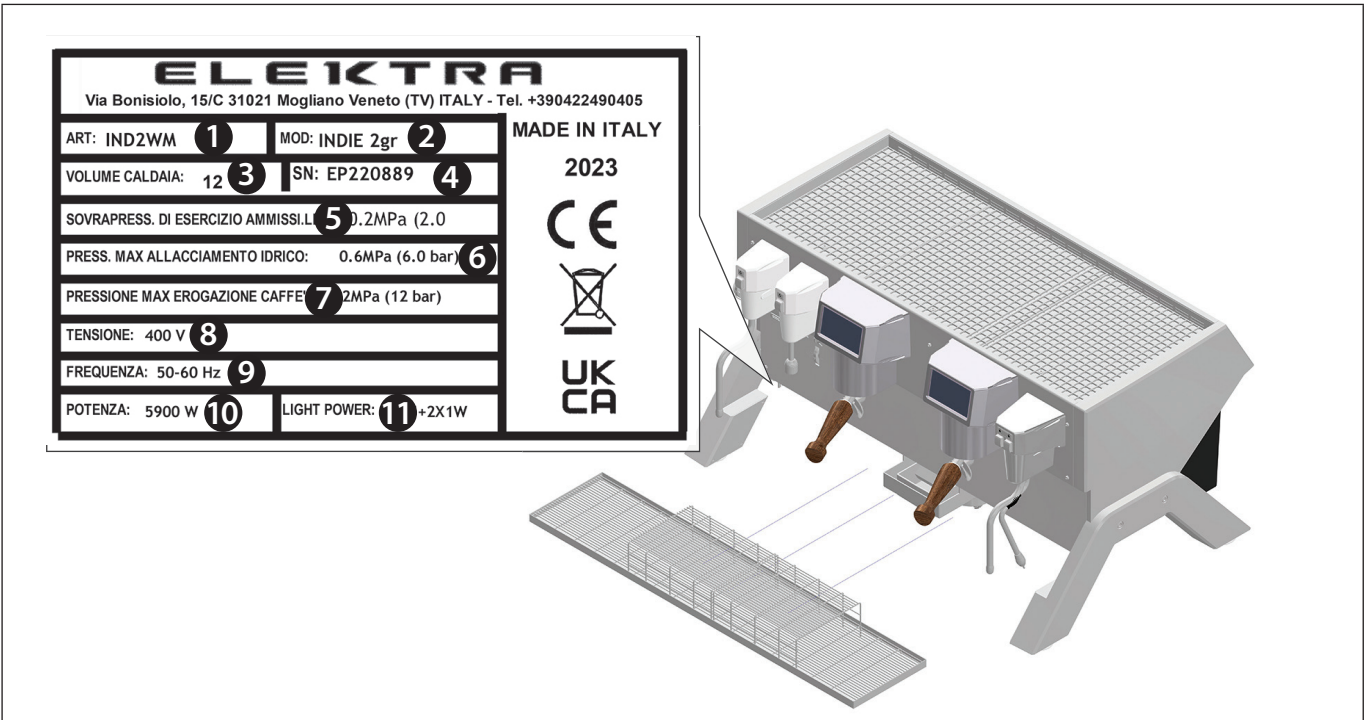
The use of products/materials other than those specified by the manufacturer, which may result in damage to the machine and in situations of danger for the user and/or persons in the vicinity of the machine, shall be considered incorrect and improper.



IMPORTANT:

Any improper use automatically invalidates the warranty and exempts the manufacturer from any liability for damage to persons, property or animals.

1.3 MACHINE IDENTIFICATION DATA AND NAMEPLATES



1	Item	7	Maximum coffee dispensing pressure (MPa - bar)
2	Model	8	Voltage (V)
3	Boiler volume (L)	9	Frequency (Hz)
4	Serial number	10	Power (W)

1.4 COMPLIANCES

EUROPE APPROVALS

The 230V powered model complies with the applicable European Directives and is marked as such **CE**

All products bearing this mark can to be sold directly in all member states of the European Community.

To be entitled to apply the CE mark, the manufacturer must draw up a technical file which ELEKTRA will place at the disposal of its clientele for all the various kinds of technical controls.

The products are in compliance with the following Directives:

2001/95/CE	General safety	2012/19/EU	Waste electric and electronic equipment (RAEE)
2004/1935/CE	Materials and objects in contact with food (MOCA)	2014/30/CE	Electromagnetic compatibility
2006/42/CE	Machine construction	2014/35/CE	Electrical safety
2011/65/CE	Restrictions on use of some dangerous material (ROHS)	2014/68/EU	Pressure equipment (PED)

1.5 GENERAL RECOMMENDATIONS AND SAFETY REGULATIONS

- 1) This booklet is an essential and integral part of the product and must be given to the user. It contains basic safety instructions that must be followed for the installation, operation and maintenance of the appliance. When using electrical appliances, basic safety precautions should always be followed, including the following: read all Instructions.
- 2) After removing the packaging, check whether the appliance is whole. Should you have doubts, do not use the appliance and contact professionally qualified personnel. The elements of the packaging (plastic bags, expanded polystyrene, nails, etc.) must not be left within reach of children as they are potential sources of danger.
- 3)  **The installation must be carried out in compliance with the regulations in force, according to the manufacturer's instructions and by qualified personnel. Incorrect installation can cause damage to people, animals or property, for which the manufacturer cannot be held responsible. Elektra declines all responsibility for any tampering or intervention by unauthorised persons and in which case the warranty automatically lapses** . The appliance shall only be installed in places where its use and maintenance are reserved for qualified personnel. The appliance cannot be installed at an altitude higher than 2000 metres. Before electrically connecting the appliance, make sure that the identification plate information corresponds to that of the electrical distribution network. The plate is located on the front part of the work area. The wiring diagram is shown on an adhesive tag placed at the end of the power cable.  **The electrical safety of this appliance is achieved only when it is correctly connected to an effective earthing system carried out as required by the safety regulations in force** . You must verify this essential safety requirement and, should you have doubts, request a thorough check of the system by professionally qualified personnel. The manufacturer cannot be held responsible for any damage resulting from lack of grounding of the system. Should the appliance not be provided with a power cord with plug, the installation must provide an omnipolar switch as required by the safety regulations in force with a contact opening distance equal to or greater than 3 mm and compliant with the AS/NZS 3000 standard. Check whether the electrical capacity of the system is adequate to the maximum power of the appliance indicated on the plate and, in particular, whether the section of the cables of the system is suitable for the power absorbed by the appliance. To avoid dangerous overheating, it is recommended to unwind the entire length of the power cord. Do not use of adapters, multiple sockets and/or extensions. The appliance is not intended to be installed in kitchens.
- 4) For connection to the water supply, comply with the provisions of this manual.
- 5) This appliance shall only be used for the purposes for which it was expressly designed. Any other use is to be considered improper and therefore dangerous.  The manufacturer cannot be held liable for any damage resulting from improper, erroneous and unreasonable use.
 - **The appliance shall be used in environments whose minimum temperature does not fall below 5°C and whose maximum temperature does not exceed 40°C;**
 - **Do not obstruct the suction or dissipation grilles, in particular do not cover the upper heating tray with cloths or anything else.**
 - **The appliance is equipped with a hydraulic circuit containing water which must not be made to freeze under penalty of damaging the appliance itself;**
 - **Do not clean the appliance with water jets and do not install it in a place where water jets can be used for cleaning;**
 - **The appliance shall be installed in a horizontal and non-inclined position, at a height such that the upper cup-holder plane is at least 1.5 meters from the floor.**
 - **Do not touch the appliance with wet or damp hands or feet;**
 - **Do not use the appliance barefoot;**
 - **Do not pull the power cord;**
 - **Do not leave the appliance exposed to atmospheric agents (rain, sun etc.): it is not suitable for outdoor use;**
 - **The appliance may be used by children above 8 years of age and by persons with reduced physical, sensory or mental capabilities, or without experience or necessary knowledge, provided that they are under supervision or after they have been instructed on the safe use of the appliance and after understanding of the hazards relating thereto. Children shall not play with the appliance. Cleaning and maintenance intended to be carried out by the user shall not be carried out by children without supervision** 

- 6) Before carrying out any maintenance operation, disconnect the appliance from the mains power supply by turning off the system switch or removing the plug from the power socket. Whenever maintenance operations are carried out on the joints for connection to the water mains, new joints shall be used and the old ones shall not be reused. For cleaning operations, comply with the provisions of this instructions booklet.
- 7) In the event of failure and/or malfunction of the appliance, switch it off, refraining from any attempt at repair or direct intervention. Only use professionally qualified personnel. Any repair of the products must only be carried out by the manufacturer or by an authorised support centre using only genuine spare parts. Failure to comply with the above may jeopardise the safety of the appliance. The power cord of this appliance shall not be replaced by the user. In case of damage to the cable, switch off the appliance and, for replacement, contact only professionally qualified personnel.
- 8) Should you decide not to use the appliance any more, it is recommended to make it inoperative by cutting off the power cord, after disconnecting the cord from the power mains. It is also recommended to render harmless those parts likely to cause a potential source of danger.
- 9) Caution: hot surfaces 

1.6 DESCRIPTION OF THE APPLIANCE

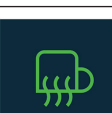
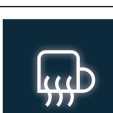
The main functions of the machine, and its relative parts, are described below, with a view to ensuring its maximum performance.

1) USER-MACHINE COMMUNICATION

Each dispensing unit is equipped with an intelligent touch-screen that allows simple and immediate communication between user and machine.

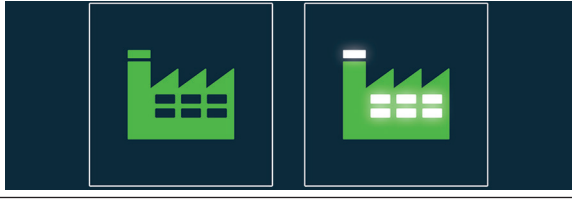
Communication is realised through the following icons, which are the switches, buttons, displays and alarms required for operation and control of the equipment:

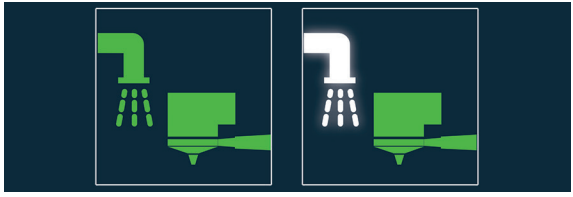
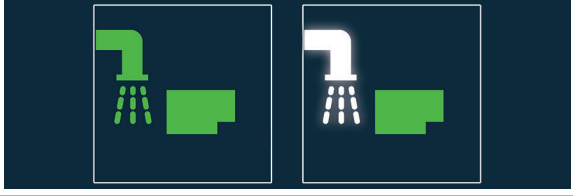
• SWITCHES

		IG42 Light switch OFF - ON
		IG43 Light colour rotation switch OFF - ON
		IC1 Group ignition switch OFF - ON
		IG1 Cup warmer ignition switch OFF - ON

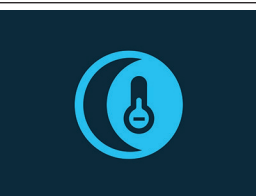
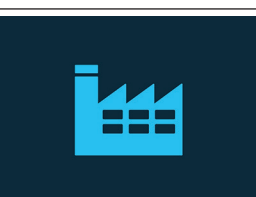
• BUTTONS

	IC37 Unit purge button OFF - ON - DONE
	IC4 Single short espresso dispensing button
	IC5 Single long espresso dispensing button
	IC6 Short double espresso dispensing button
	IC7 Double long espresso dispensing button
	IC8 Manual coffee dispensing button
	IG16 Time and date setting button
	IG17 Night cycle setting button

	IC40 Unit parameter setting button
	IG21 Hot water measurement setting button
	IC43 "Production" or "Competition" mode setting button
	IC46 "Production" mode setting button
	IC49 "Competition" mode setting button
	IG2 Data record button set
	IG31 Return to the operating screen button
	IG32 Return to menu button

	IC31 Unit washing button
	IC34 Unit rinse button

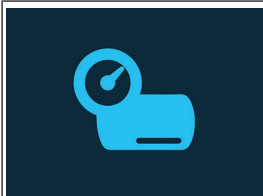
• ALERTS

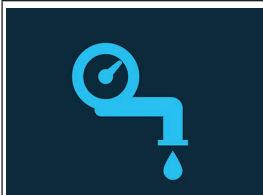
	UC55 Unit heating signal
	UG3 Machine heating signal
	UG4 Machine in the night cycle signal
	UG15 General alarm signal
	UC73 "Production" mode signal

	UC76 "Competition" mode signal
---	--

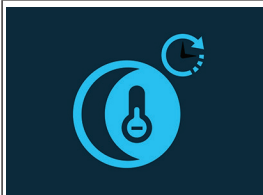
	UC64 Unit washing end signal
---	--

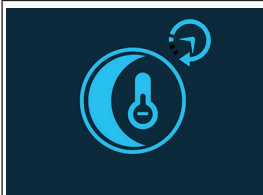
• DISPLAYS

	UG6 Boiler pressure display
---	---------------------------------------

	UG5 Water main pressure display
---	---

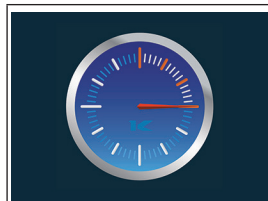
	UG7 Infusion pressure display
---	---

	UG33 Night cycle start time display
---	---

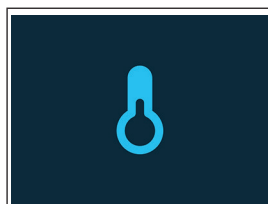
	UG34 End of night cycle time display
---	--



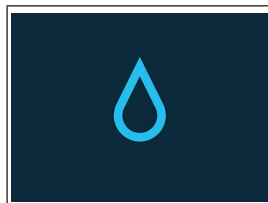
UC79
Coffee measurement display



UC82
Infusion time display



UC72
Temperature value display



US18
Hot water measurement display

• ALARMS



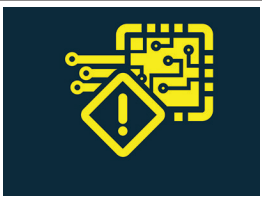
UC58
Unit temperature control failure alarm



UC61
Unsuitable infusion alarm

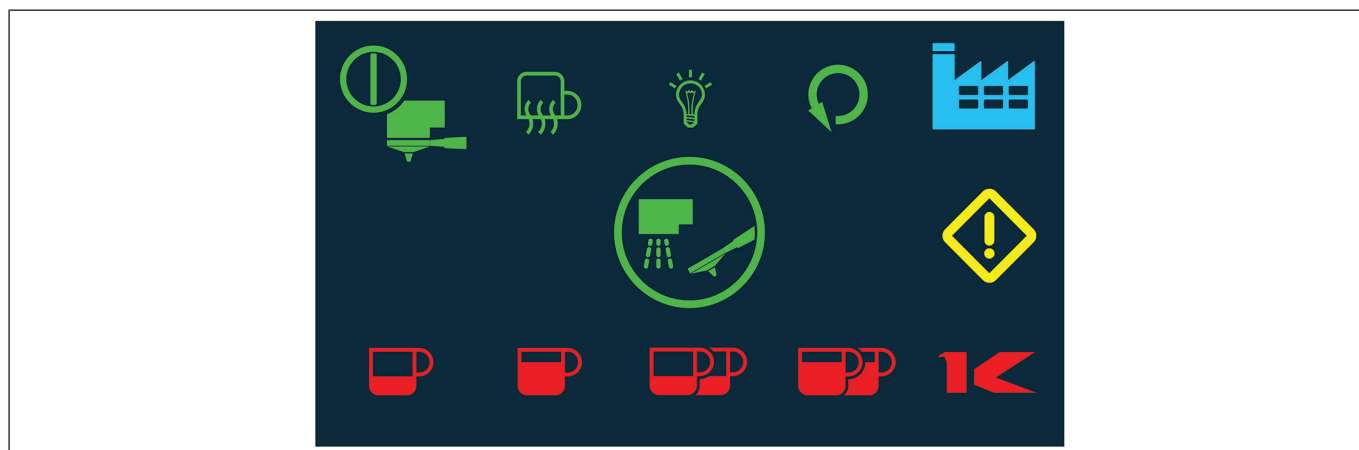


UG8
Low buffer battery alarm

	UG9 No water main pressure alarm
	UG10 Boiler water level check failure alarm
	UG11 Boiler temperature check failure alarm
	UG41 Electronic control failure alarm

These icons are managed through ten main screens and 5 programming screens that can be selected by scrolling horizontally or vertically on the touch-screen of the left-side dispensing unit, as follows:

These screens allow to manage the main macro-functions of the equipment, as follows:





15:30

24-07-2015



3.3 bar



1.8 bar



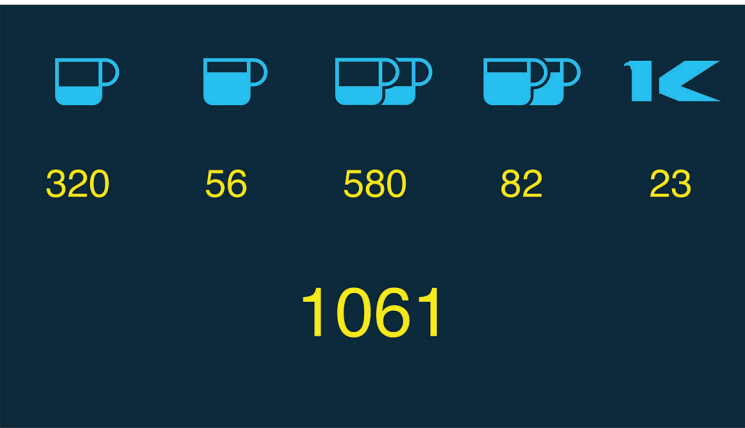
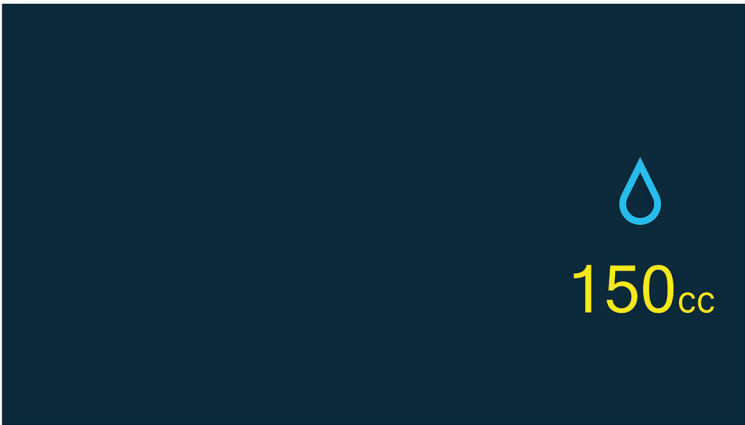
8.0 bar

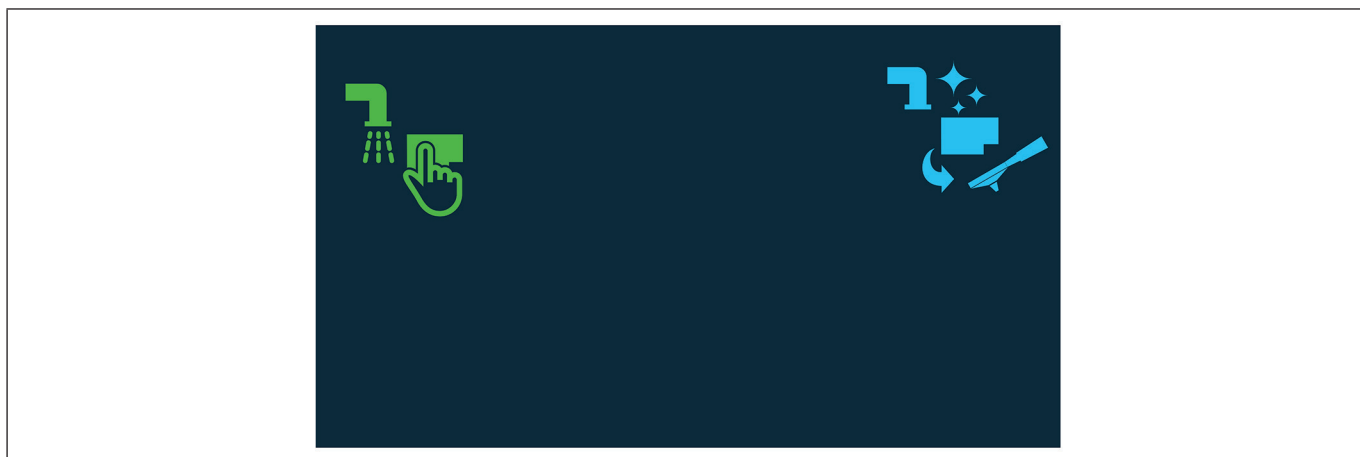
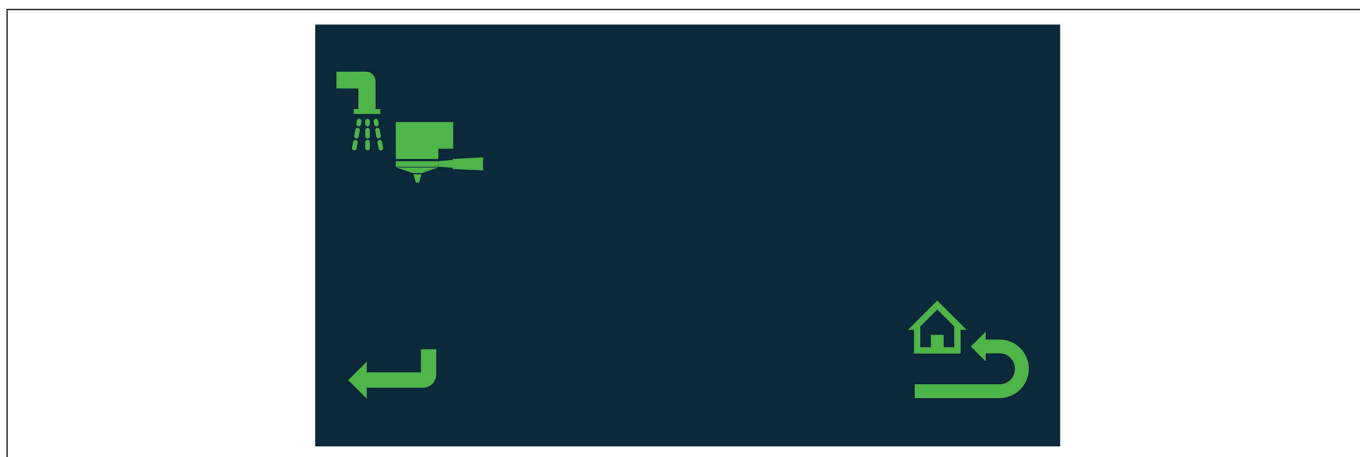


19:30



07:30





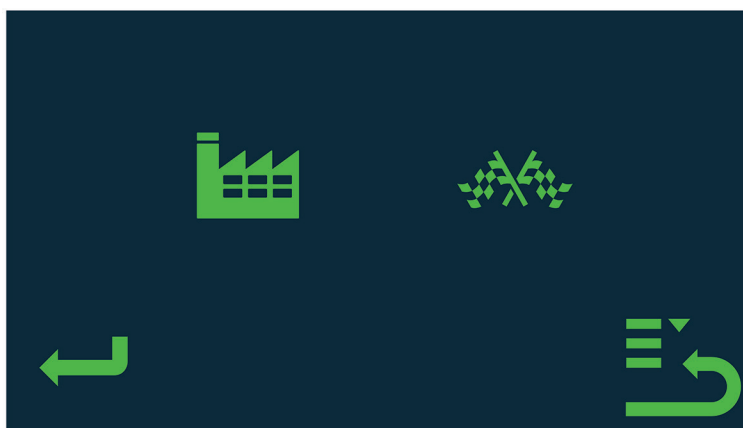
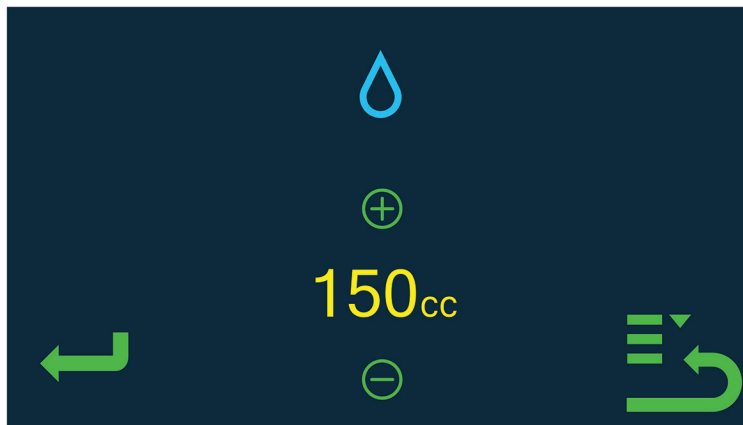
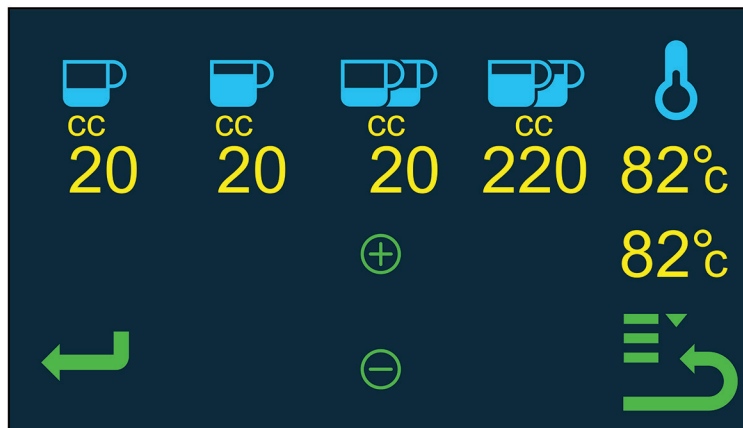


15:30 24-07-2015



19:30 07:30





The touch-screens of the centre and right-side dispensing units have only the screens V1, V6, V7, V8, V9, V10, VP3 and VP8 relating to their functions and not to those of the entire equipment.

1.7 COFFEE DISPENSING

The machine is equipped with dispensing units that can be switched on and used individually. The units are characterised by low thermal inertia, self-heating, with dynamic precision control of the temperature of the infusion water.

Each unit is also equipped with an infusion water preheater in order to minimise the thermal excursion required to maintain the desired temperature and also minimise the reaction times to the regulation.

This allows to adjust, the infusion water temperature can also be adjusted in real time during dispensing, over a range of values

from 70°C to 95°C.

Actually, you can set the dispensing operation of each unit, independently, on two different modes, called "Production" or "Competition".

1.7.1 "PRODUCTION" OPERATING MODE

By presetting of the extraction temperature and coffee measurement, this mode allows a fully automatic and repetitive production, characterised by speed of execution and consistency of characteristics of the beverage.

1.7.2 "COMPETITION" OPERATING MODE

This mode allows the creation in real time, that is, during the dispensing itself, of a curve of the extraction temperature as a function of the time elapsed or the quantity dispensed, leaving room for the creativity and experience of the bartender to obtain the best possible result with a given quality of coffee used.

1.8 STEAM DISPENSING

The machine is equipped with one or two steam dispensers with semi-automatic control and graduated flow regulator.

The steam is produced by a boiler exclusively designated for that purpose, with a capacity of 12 litres for the 2-unit model and 16 litres for the 3-unit model.

The steam flow can be adjusted in real time during dispensing, with pressure values from 0.8 to 1.8 bar.

Maximum production of milk heated from 5°C to 65°C: 30L/h. for each dispenser. The dispensers are equipped with articulated lances that allow the use of large milk or water containers with good general ergonomics.

The lances are thermally insulated so that they can be operated easily without causing burns.

1.9 HOT WATER DISPENSING

The machine is equipped with a hot water dispenser with automatic control according to a predetermined size that can be set. Values: from 300cc to 1500cc. Water temperature: 70/80°C.

The dispenser is equipped with a heat exchanger that heats the water by taking it directly from the water supply.

1.10 BOILER WATER LEVEL CHECK

This is carried out by means of level probe and solenoid valve that implement the water load in the boiler, keeping it constant automatically.

1.11 BOILER WATER TEMPERATURE CHECK

The boiler water temperature is checked by a sensor which controls the switching on of the electrical heating resistors by means of a power contactor. As a result, it also determines the control of the pressure in the boiler, constantly maintained at 1.8 bar.

1.12 INFUSION WATER TEMPERATURE CHECK

Each dispensing unit is equipped with an instant heat exchanger and heating resistance of the infusion water, which is already preheated to a temperature of about 70°C.

A sensor measures the temperature of the amount of water intended to be dispensed, immediately before it enters into the filter containing the coffee. This system, together with the construction characteristics of low inertia and high thermal insulation, allows to maintain the infusion water temperature equal to the value set in real time with high precision and high speed of physical variation.

1.13 COFFEE MEASUREMENT CHECK

Each dispensing unit is equipped with a flow meter sensor, called a volumetric counter. It measures the volume of water that

is dispensed by the group, ensuring that the final volume of coffee in the cup matches the value programmed by the user.

The final volume in cubic centimetres (millilitres) of coffee in the cup then practically coincides with its weight in grams, the specific weight of the extract being practically equal to that of water. To achieve this, the control system of the equipment takes into account the amount of water needed to wet the coffee tablet, the amount that does not transfer into the cup during dispensing, and the sum of the programmed amount.

The amount of water needed to wet the tablet is predetermined as a factory value and it refers to amounts of coffee powder equal to 6/8 grams for single coffees and 12/16 grams for double coffees.

The dispensing flow rate corresponding to these parameters is around 1 cc/second, that is the one obtained with grinding particle size required for Italian espresso.

If using coffee powder or different particle size, contact Technical Support. This system is such not to require complex and unreliable technologies such as gravimetric technology. However, it allows high precision in the determination of the so-called "brew ratio" but with very low brewing times, not requiring, for example, weighing, before and after loading coffee, filter holder.

1.14 INFUSION PRESSURE DETECTION

The equipment is provided with a pressure sensor that measures the pressure dispensed by the pump during infusion.

By reading the value on screen V3, it allows the technician to manually adjust the pump pressure by performing a coffee dispensing.

1.15 WATER MAIN PRESSURE DETECTION

The same sensor referred to in the previous paragraph measures, when the pump is stopped, the pressure of the water main with which the equipment is supplied. Value displayed on the same screen V3.

It allows automatic protection from the lack of water supply by the water mains, by stopping the machine.

1.16 RESISTOR PROTECTION

Both the three resistors of the boiler, 1170W each for the 2-unit model and 1830W each for the 3-unit model, and the resistors of each dispensing unit, 800W each, are protected from overheating.

This protection is provided by means of a thermostat for the boiler and a thermostat for each unit, all with manual reset that control the cut-off of the power supply of the resistors.

In each of the following cases:

- Duration of excessive heating.
- Exceeding the maximum permissible temperature value, the resistors are deactivated and the serious failure alarm is signalled on screen V1.

1.17 HEATING THE CUPS

The equipment is equipped with heated upper trays that allow the cups to be kept warm for a good final result of the infusion.

The heating is obtained by means of a series of heating plates, each equipped with a temperature self-stabilizing 60W resistor.

Three plates for the 2-unit model, four plates for the 3-unit model.

1.18 WORKTOP LIGHTING

The machine is equipped with neutral white light illumination of the cup support surface during dispensing. It allows a clear and correct view of the product in the cup by evaluating the colour of the extract. It is provided by means of a high-powered led spot for each unit, positioned above it.

1.19 BODY LIGHTING

The machine is equipped with multicolour lighting on the rear side (opposite to the working side) of the bodywork, which enhances its design and visibility features. The colours can vary continuously or a fixed colour can be selected at will.

1.20 NOISE EMISSIONS

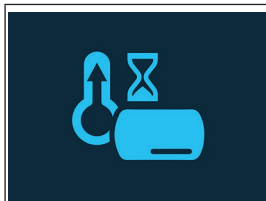
The A-weighted sound pressure level of this model is equal to 80dB uncertainty 1dB.

2. OPERATION INSTRUCTIONS

THESE INSTRUCTIONS ARE INTENDED FOR END USERS

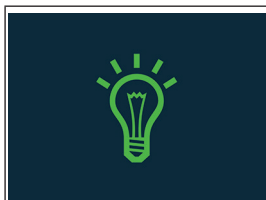
2.1 USE

2.1.1 GENERAL SWITCHING ON

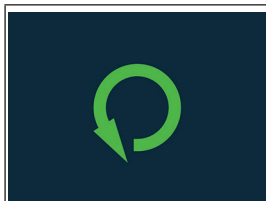


The machine is switched on using the switch marked by the symbol ⓘ

2.1.2 SWITCHING ON THE LIGHTING

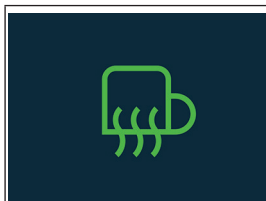


The lighting is switched on by the switch marked by the symbol on screen V1.



Using the button marked with the symbol:
of the same screen you switch from a slow rotation of all colours to a fixed colour chosen at the pleasure of the lighting of the rear part of the bodywork.

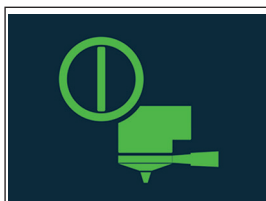
2.1.3 SWITCHING ON THE BOTTLE HEATER



Press the switch marked with the symbol:

located on screen V1.

2.1.4 SWITCHING ON THE DISPENSING UNITS



Once the boiler is hot, the switch marked with the symbol appears on the screen V1 of each dispensing unit:

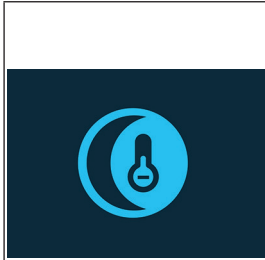


By activating it, the unit begins to near the previously set temperature and the signal appears on the same screen:

The signal disappears when the unit is hot.

Coffee can be dispensed at this point.

2.1.5 NIGHT CYCLE



By setting a day time, the machine enters a partial operating state regarding which the temperature in the boiler is maintained at a very low value (40°C).

In this state the dispensing buttons with automatic measurement are not working but only those with manual measurement

During the night cycle, the following warning is displayed on screen V1:

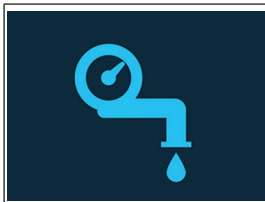
At the end of this time the machine resumes its full operating mode. See paragraphs below.

By not completely cooling the machine, this cycle allows to obtain a smaller deposit of limestone in its hydraulic components and to save electricity.

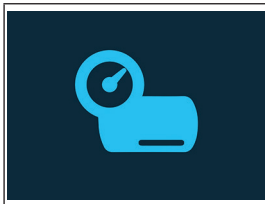
2.1.6 FUNCTIONAL PARAMETERS DISPLAY

By scrolling horizontally to the left on the touch-screen of the left unit, there is displayed the screen V3 indicating the following operating parameters:

15:30 24-07-2015



- Water main pressure

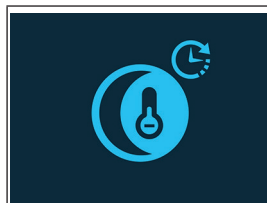


- Boiler pressure

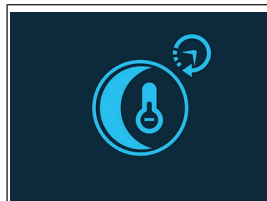


- Infusion pressure

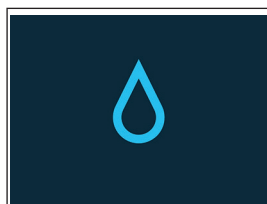
The infusion pressure is displayed correctly by activating the pump using the button marked with the **K** symbol on the signal.



From here, by scrolling vertically upwards, there is displayed the screen V4 indicating the following operating parameters:
- Night cycle start time



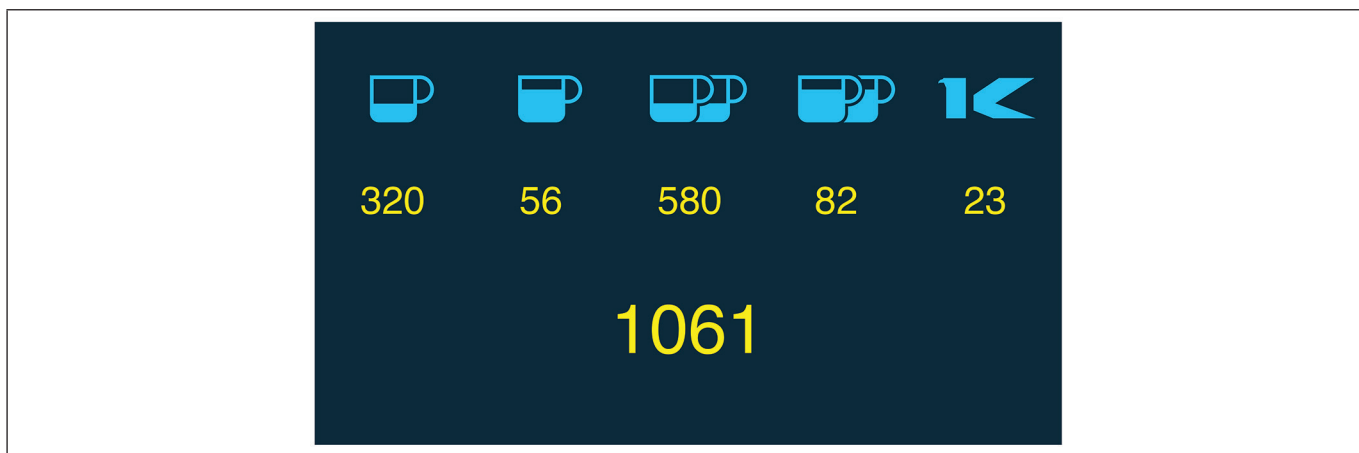
- Night cycle end time



By scrolling vertically upwards again, there is displayed the screen V5 indicating the following operating parameters:
- Hot water measurement

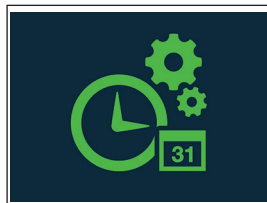
By scrolling vertically upwards one last time,

also on the centre and right units, there is displayed the screen V6 indicating the number of coffees of each type dispensed by that dispensing unit and the relative total:

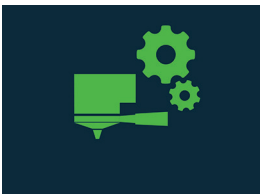
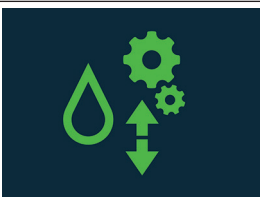
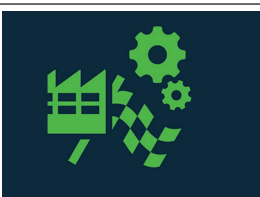
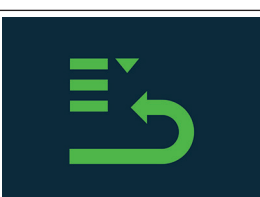
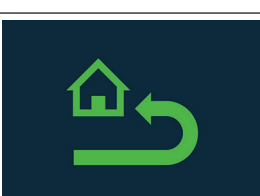


2.1.7 SELECTING THE FUNCTIONAL PARAMETERS TO BE SET

From screen V3, scrolling horizontally to the left on the touch-screen of the left unit, there is displayed the screen V7 which allows to select the setting of the operating parameters using the following buttons that open the relative programming screens VP:

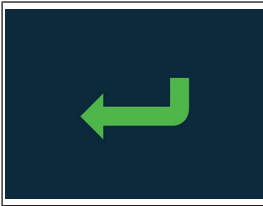


- Setting time and date

	- Setting the night cycle
	- Setting coffee measurements and temperature (also on the centre and right units), only in "PRODUCTION" mode
	- Hot water measurement setting From here, scrolling vertically upwards, there is displayed the screen V8, which allows to set the operating mode of the machine using the following button:
	- Setting "Production" or "Competition" mode (also on the centre and right units)
	You can record the data set using the button marked with the symbol.
	You can return to the screen V8 using the button
	You can return to the main screen V1 using the button.

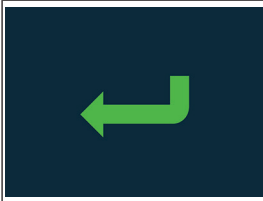
2.1.8 SETTING FUNCTIONAL PARAMETERS

SETTING TIME AND DATE



The screen VP1 allows to set the current time and date using the two incrementer  and decre-
menter buttons .

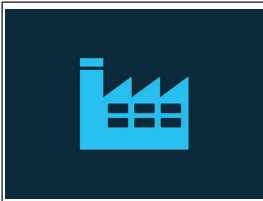
SETTING THE NIGHT CYCLE



The screen VP2 allows to set the start time and end time of the night cycle, sequentially, using the two incrementer  and decre-
menter buttons .

SETTING THE "PRODUCTION" OR "COMPETITION" MODE

The screen VP8 allows to set one of the two possible operating modes of the machine during the dispensing of coffee, the "Production" mode or the "Competition" mode.

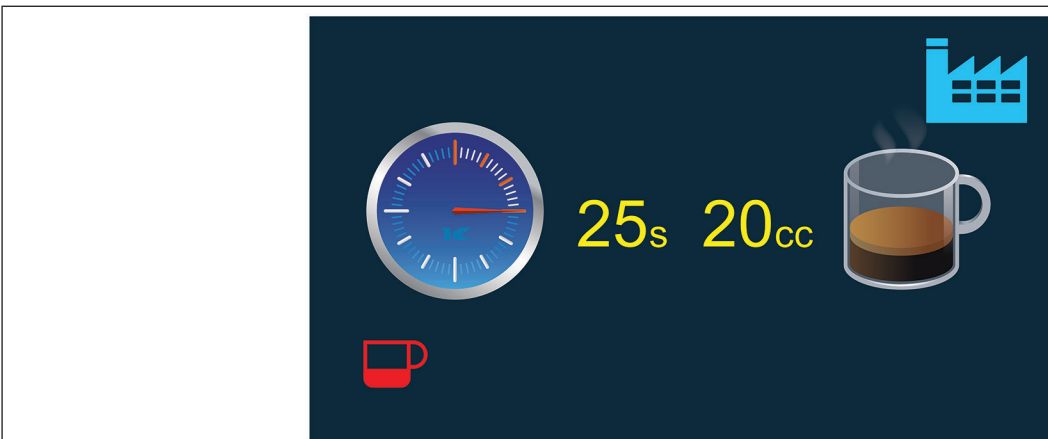


The "Production" mode is indicated on the top right corner of the touch-screen by the symbol



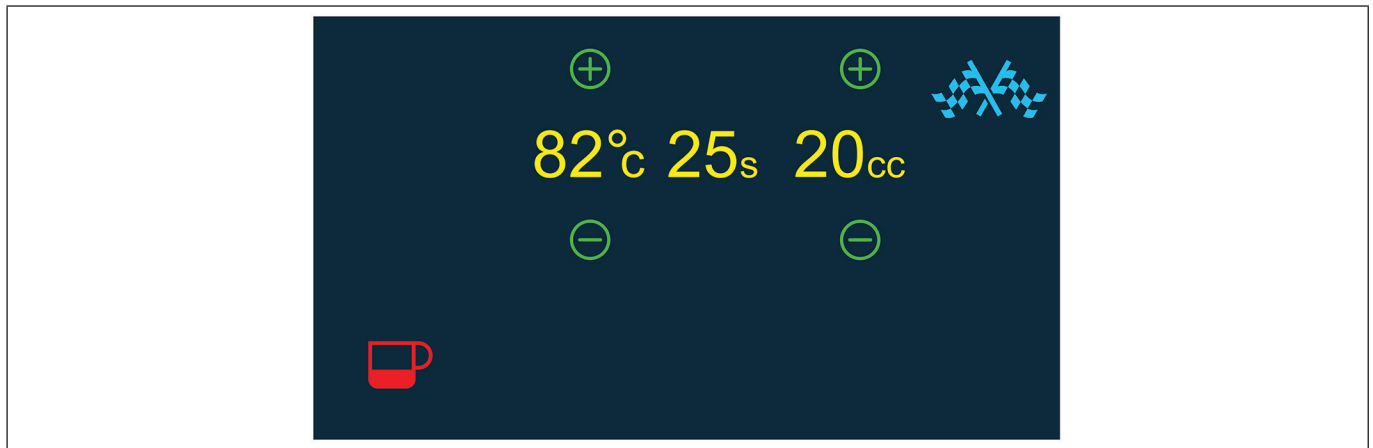
the "Competition" mode by means of the symbol

In "Production" mode, the following screen V1/9 appears during the dispensing of the coffee:



By means of which there are dynamically indicated the elapsed extraction time and the amount of coffee dispensed in the cup. During this dispensing, you cannot adjust extraction, temperature and coffee measurement parameters in any manner whatsoever.

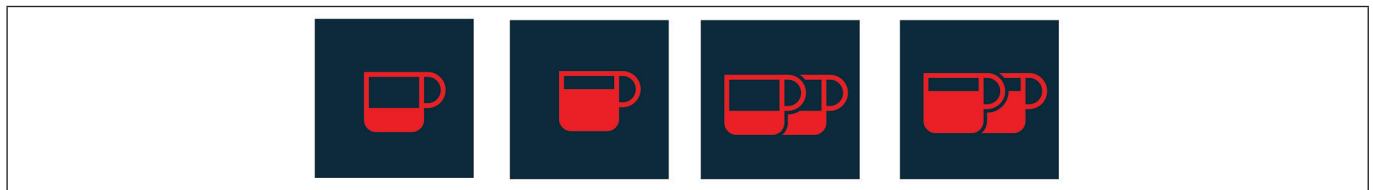
In "Competition" mode, the following screen V1/8 appears during the coffee dispensing:



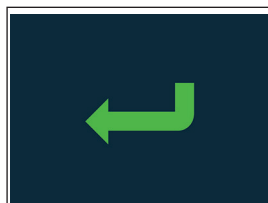
By means of which there are dynamically indicated the extraction temperature, the elapsed extraction time and the amount of coffee dispensed in the cup.

During this dispensing you cannot adjust the extraction temperature and the coffee measurement in real time in any manner whatsoever

"PRODUCTION" - SETTING THE COFFEE MEASUREMENT



The screen VP3 allows to set, sequentially, the coffee measurements of each of the four buttons located on the screen V1, using the two incrementer  and decrementer buttons 



and to record these settings using the button

"PRODUCTION" - SETTING THE COFFEE TEMPERATURE

The screen VP3 also allows to set the coffee extraction temperature. It also displays the instantaneous temperature value, comparable with the set value.

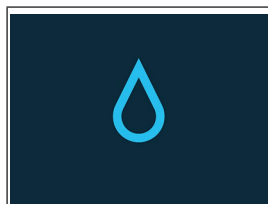
"COMPETITION" - Setting The Coffee Measurement

In real time, during dispensing, by acting on the incrementer  and decrementer 

"COMPETITION" - SETTING THE COFFEE TEMPERATURE

In real time, during dispensing, by acting on the incrementer  and decrementer 

SETTING THE HOT WATER MEASUREMENT



The screen VP7 allows to set the measurement of the hot water, extracted from the special dispenser marked with the symbol



using the two incrementer  and decrementer buttons 

2.1.9 USING THE WORK AREAS

The machine is divided into the central coffee dispensing area and into the steam and hot water dispensing areas on the left and steam on the right.

It allows to work with containers with heights amounting to 70 mm or 130 mm, depending on the heights of the support surfaces used (dispensing units) and with containers up to 150 mm high (water and steam lances).

Includes a low grid and two independent platforms for the coffee area

2.1.10 PURGE

Before dispensing a coffee, you can clean the dispensing unit from the spent coffee residues present following the previous dispensing.



Remove the filter holder and press the button.
An automatic hot water supply of a few seconds starts, which washes the unit.



Once the purge has been performed, the corresponding button changes from green to yellow, thus indicating that the operation has already been performed.

2.1.11 coffee dispensing with manual measurement



It allows to dispense coffee of different lengths each time by pressing the button marked with the symbol:
located on the screen V1, and restarting it once the desired measurement has been obtained.

In the "Competition" mode only, the instantaneous values of the infusion temperature appear on the screen V1 during dispensing. This function is active in any state of the machine, even if there is a serious fault, so as to allow washing or checking during repairs

2.1.12 COFFEE DISPENSING WITH AUTOMATIC MEASUREMENT

It allows to dispense coffee according to predetermined measurements and temperatures. It is performed using the keys marked by the symbols:



located on the screen V1, pressing them only once;

dispensing is cut off automatically upon reaching the predetermined measurement.

This function is active only when all the expected protection and operating states are positive and can be manually interrupted by pressing the same button.

During dispensing, the time elapsed since the start of dispensing is displayed.

The final value of the time taken, together with those of temperature and measurement, is displayed for 10 seconds after the end of the dispensing.

The value of the time taken, together with that of the final measurement of the coffee, allows to evaluate the correct degree of grinding of the powder used.

See paragraph "2.1.13 COFFEE BREWING" on page 35.

2.1.13 COFFEE BREWING

Factors of basic importance to obtain good quality coffee are:

- Use of fresh and ground coffee for a short time, because it quickly loses its aromatic qualities and the fatty substances it contains turn rancid.
- Grinding of uniform coarseness, obtainable only with good quality and well maintained coffee grinders. The uniform coarseness of the powder guarantees complete extraction and good repeatability of the product in the cup.
- Use of very hot cups that greatly contribute to the maintenance of the infusion cream.

Without prejudice to the factors illustrated above, there are many recipes to obtain countless types of different infusions, firstly based on the type of coffee bean used, both for the production of blends and as a mono-origin.

The essential parameters are:

- Type of coffee bean used
- Grinding degree
- Amount of powder used
- Infusion water temperature
- Infusion pressure

By way of example, the traditional recipe for Italian espresso coffee provides for a grinding degree that must be such to require about 25 seconds for the production of the beverage, which must have a volume of about 25 cc.

The amount of ground product should be about 7 grams.

Infusion temperature ranging between 80°C and 95°C depending on the type of coffee used. Infusion pressure between 8 bar and 9 bar.

- 1) Release the filter holder from the dispensing unit by turning it to the left
- 2) unload the used coffee grounds in the bottom drawer without banging excessively so as not to damage the edge of the filter.



Purge the unit by pressing the button

- 3) Fill the filter with the dose of ground coffee.
- 4) Level and press with the presser. Ensure that no ground product remains on the edge of the filter. This precaution is used to ensure a better seal and prolongs the life of the under-cup seal.
- 5) Engage the filter holder to the dispensing unit by turning it firmly to the right.
- 6) Place the cups under the dispensing spouts and activate the dispensing.

2.1.14 PREPARING WHIPPED MILK

To obtain the milk whipping, needed for preparing cappuccino, use a tall and narrow container filled almost half-way, proceeding as follows:

- 1) Briefly control the steam dispenser by pressing the button marked with the symbol
- 2) Place the container with the milk under the steam lance so that the sprayer touches the bottom, then activate the steam dispenser again. Adjust the optimal flow using the numbered wheel and heat the milk to the desired temperature.
- 3) Lower the container so that the sprayer reaches almost the surface of the milk and from this position raise and lower the container so that the sprayer alternately dips and comes out of the milk. Carry out this operation for a few seconds until through with the whipping after which activate the steam dispenser again to stop the dispensing of steam. To obtain the cappuccino, add the heated and whipped milk to the hot espresso coffee

2.1.15 PREPARING TEA - CHAMOMILE - ETC

Place the container under the hot water lance and activate the hot water dispenser by pressing the button marked with the symbol

2.2 MAINTENANCE AND CLEANING

2.2.1 DAILY CLEANING OF DISPENSING GROUP AND FILTERHOLDER

Every evening or at least once a day, you must clean shower heads and under-cup seals of the dispensing units with a cloth or sponge and rinse the filters and filter holders in boiling water to dissolve the fatty deposits of the coffee. It is recommended to wash the inside of the filter holders and filters in order to avoid encrustation and coffee deposits which, detaching when brewing coffee, end up in the cup in the form of a "used coffee grounds".

2.2.2 DAILY CLEANING OF THE STEAM LANCES

The steam lance, used to heat beverages, must be cleaned immediately after use in order to avoid the formation of encrustations that could clog the sprayer holes and also prevent the residues of previously heated beverages from deteriorating, creating antigenic bacterial formations

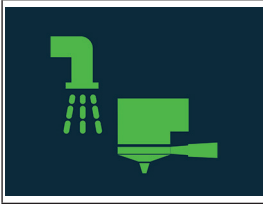
- 1) Fill a stainless steel container with cold water to a height at least equal to the level of milk residues present on the lance.
- 2) Introduce the lance into the container with the water.
- 3) Activate the steam dispenser by pressing the button marked with the symbol

2.2.3 WEEKLY CLEANING OF THE UNITS

At least weekly, clean the internal from the coffee residues in the dispensing units through the following semi-automatic procedure guided by the machine

- 1) Replace the standard filter mounted on the filter holder of the unit with the blind filter (not drilled) supplied.

- 2) Add a tablet of ELEKTRA detergent to the blind filter and engage the filter holder onto the unit.



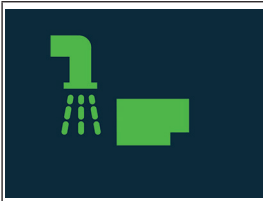
- 3) Press the button located on the screen V9/1 displayed by scrolling horizontally to the left on the touch-screen



- and then confirm by pressing the button
the washing starts, performing 10 dispensing cycles lasting 20 seconds each.



- At the end of the washing, there are displayed on the screen V9/2 the signal



- and the rinse activation button



- 4) Release the filter holder from the units and do not engage it again.
5) Press the button

there starts a rinse, consisting of a 30-second dispensing, a 30-second pause and another 30-second dispensing.

After rinsing, the dispensing unit automatically returns to standard operation, ready for use: remove the blind filter, refit the standard filter and engage the filter holder on the unit.

2.2.4 WEEKLY CLEANING OF FILTERS AND FILTER HOLDERS

- 1) Add three teaspoons of coffee machine detergent into about one litre of boiling water contained in a heat-resistant container.
- 2) Immerse the filters and filter holders in the prepared solution and leave them immersed for about 20/30 minutes (do not totally immerse the filter holders with wooden handles: the water and detergent solution would damage the handles).
- 3) Rinse thoroughly in running water.

2.2.5 WEEKLY CLEANING OF THE LOWER CUP-HOLDER

At least once a week, remove the lower cup support grid, remove the lower cup-holder and clean it.

 Also check and clean the drain pan by removing any used coffee grounds sludge using a teaspoon and rinse it 

2.2.6 WEEKLY CLEANING OF THE BODY

Simply use a damp (non-abrasive) cloth.

Do not use alcohol or solvents on the written or paint coated parts because they could be damaged.

2.3 TROUBLESHOOTING

 In case of problems with the equipment, consult the following guide and try to solve them in accordance with the tips given therein.

If the problems persist, contact Technical Support and do not intervene directly on the appliance 

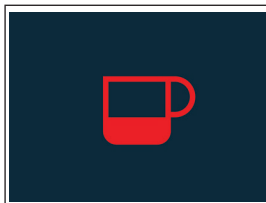
2.3.1 FAILURE UNIT TEMPERATURE CHECK ALARM



If the following warning appears on the main screen V1:
this means there is a serious failure.

 **Switch off the dispensing unit and contact Technical Support** 

2.3.2 INADEQUATE INFUSION ALARM



If after a selected dispensing with an automatic button, for example



there is displayed the following warning:

this could be the case of a coffee not brewed according to the Italian espresso standards, so adjustments are necessary when pressing, dosing or grinding the powder if not even the temperature or pressure of infusion (see also chapters "2.1 USE" on page 28 and paragraph "2.1.8 SETTING FUNCTIONAL PARAMETERS" on page 31).

Alternatively, there could be a failure or obstruction to the through-flow of water in some components: contact Technical Support.

2.3.3 LOW BUFFER BATTERY ALARM

The general management electronic control unit is equipped with a buffer battery that guarantees the storage of the time and calendar.

The system continuously monitors the efficiency of the battery by signalling its decline in time and requesting its replacement.



This is signalled through the generic icon:
on the main screen V1 .



Scrolling horizontally to the left on the left unit touchscreen there is displayed the screen V2 where the icon is located

Contact Technical Support.

2.3.4 LOW WATER MAIN PRESSURE ALARM



If the following warning appears on the main screen V1:
the machine has suspended all its functions in order to prevent damage to the pump and other components. This is the case of low water mains supply: restore the water supply; the machine will restart automatically.

2.3.5 BOILER WATER LEVEL CHECK FAILURE ALARM

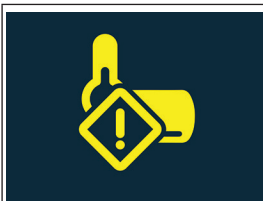


If the following warning appears on the main screen V1:
this means there is a serious failure.
The most likely causes of failure may be:

- Failure of the water inlet solenoid valve in the boiler or obstruction to the through-flow of water in some component.
- Electrically insulating encrustation on the level probe or an interruption on its electrical connection, to an extent of no longer detecting the presence of water in the boiler:

 **Turn off the machine and contact Technical Support** 

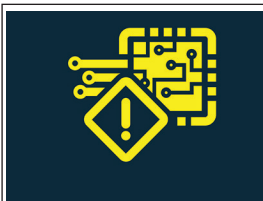
2.3.6 BOILER TEMPERATURE CHECK FAILURE ALARM



If the following warning appears on the main screen V1:
This means there is a serious failure.

 **Turn off the machine and contact Technical Support** 

2.3.7 ELECTRONIC CONTROL FAILURE ALARM



If the following warning appears on the main screen V1:
There is a serious failure of the electronic control system or electrical wiring system of the equipment.

 **Turn off the machine and contact Technical Support** 

2.3.8 THE MACHINE DOES NOT PRODUCE STEAM AND DOES NOT HEAT WATER

The resistor protection device of the boiler could have been deactivated due to shortage, even temporary, of water in the boiler

 **The resistor protection must be reactivated manually, only after removing the cause of the lack of water in the boiler.**

2.3.9 WHEN THE MACHINE IS HOT, NO STEAM COMES OUT OF THE LANCES

This problem usually occurs after the cold machine is switched on again and it is due to the gluing of the anti-backflow valve of the boiler; as a matter of fact, this does not jeopardise the use of the machine:

- After venting all the air by activating a steam dispenser, wait for the machine to warm up regularly and use it.

In the meantime, contact Technical Support.

2.3.10 WATER COMES OUT OF THE STEAM LANCES

In this case the boiler is completely filled with water instead of also having a certain amount of steam. Possible causes could be:

- Failure of the water inlet solenoid valve in the boiler.
- Electrically insulating encrustation on the level probe or an interruption on its electrical connection.

 **Turn off the machine, close the water supply and contact Technical Support** 

2.3.11 NO WATER COMES OUT OF A DISPENSING UNIT

Possible causes could be:

- Coffee grinding too fine: adjust it.
- Failure or obstruction to the passage of water in some component: contact Technical Support.

2.3.12 A DISPENSING UNIT DOES NOT HEAT SUFFICIENTLY

The resistor protection device of the unit could have been deactivated as a result of failure of the unit's temperature sensor and resulting overheating.

 **The resistor must be reactivated manually, only after removing the cause of the fault** 

Contact Technical Support.

2.3.13 INFUSION PRESSURE NOT BETWEEN 8 AND 9 BAR

Unless this value is above 1.2 MPa (12 Bar), in which case turn off the machine and contact Technical Support, there could be a possible failure that does not jeopardise the use of the machine.

The most likely causes are the loss of calibration of the pump or its wear. Contact Technical Support.

2.3.14 DRAIN PAN IS FULL AND OVERFLOWING WITH WATER

- 1) Clean the tray and free the drainage pipe from the residues by means of an iron wire repeatedly passed therein.
- 2) Eliminate any constrictions or siphons on the flexible drainage pipe ensuring that it takes a constant slope.
- 3) If you do not find the cause among those indicated above, it means that there is a clogging of the drainage pipes external to the machine: contact a plumber.
- 4) Also see paragraph "3.2.3 CONNECTION TO THE DRAIN" on page 42 .

2.4 DISPOSAL

- If the machine is no longer be used, it must be rendered inoperative. In particular, it is necessary to cut the power cord after the plug has been removed.
- Once the machine is inoperative or decommissioned, the boiler(s) must be emptied.



When dismantled, this product shall not be discarded as household waste, and must be delivered to an authorised waste collection point for disposal of electric and electronic devices. For more detailed information on the recycling of this product, contact your local authorities or the local waste disposal service.

3. TECHNICAL INSTRUCTIONS

THESE INSTRUCTIONS ARE INTENDED FOR ESPRESSO COFFEE MACHINE
INSTALLATION / MAINTENANCE TECHNICIAN

3.1 UNPACKING

Packaging is carried out with the aim of protecting the machine from damage during transportation.

The packaging materials used are recyclable. They are, therefore, chosen according to environmental protection criteria and ease of disposal, the latter process being geared at further integration in productive cycle materials.

Thanks to this mechanism, not only is the volume of waste reduced but a more rational use of non renewable resources is also ensured.

- 1) Cut the strap that keeps the box closed.
- 2) Open the box at the top and remove the internal protection panels, taking care to select the accessories contained therein and this manual, keeping them within sight for the following use stages of the equipment.
- 3)  **Remove the nylon bag with the upper cover of the machine and keep it away from the reach of children** .
- 4) Remove the box upwards leaving the machine on the pallet.
- 5) Remove any other packaging and protection components placed on the machine.
- 6)  **Transfer the packaging to an organisation authorised to dispose of and recycle the material** .

3.2 INSTALLATION

3.2.1 ADJUSTING THE FEET

Place the machine on the worktop and make sure it is in a levelled, adjusting the length of the feet if necessary.

Turn the black foot counterclockwise as observable below to extend it, clockwise to shorten it. There are no screws or nuts to be untightened or retightened.

3.2.2 CONNECTION TO THE WATER MAINS

Water shall be supplied through connection to the drinking water mains with a minimum pressure of 0.15 MPa (1.5 bar) and a maximum of 0.6 MPa (6 bar).

This connection must also be carried out in accordance with local regulations. Water hardness not above 20°F.

If the hardness is higher than this value, install a water softener between the water mains and the machine.

If the mains pressure exceeds 0.6 MPa (6 bar), install a pressure reducer upstream of the coffee machine/ water softener.

A safety valve may be required in order to comply with local regulations. The machine is equipped with a flexible connection tube in braided steel with 3/8 female connections and measuring about 1.7 in length.

- 1) Connect the hose to the machine connection located at the bottom of the machine.
- 2) Connect this hose to the water softener, if provided, or directly to the water mains.

3.2.3 CONNECTION TO THE DRAIN

The machine is equipped with two rubber drain pipes, one with an outer diameter of 20 mm and one with an outer diameter of 18 mm, both of which are approximately 1.5 metres long.

These flexible pipes must converge into a fixed drain manifold, arranged below

the support surface of the machine, which must have a minimum internal diameter of 50 mm. The residual space that forms between the two pipes inserted inside the manifold must be left free to vent the air during the water discharge.

- 1) Connect the 20 mm diameter rubber hose to the hose holder of the plastic drain pan arranged at the bottom of the machine and connect it to the drain manifold arranged under the bench, taking care that it does not form siphons and that

it is not constricted.

- 2) Connect the 18 mm diameter rubber hose to the metal hose holder at the bottom of the machine and connect it to the drain manifold arranged under the counter, taking care that it too does not form siphons and that it is not constricted.

3.2.4 ELECTRICAL CONNECTIONS

The machine is equipped with an electrical power connection cable, approximately 2 metres long, with 5 wires with the following colours:

Green/Yellow:	Earth
Blue:	Neutral
Brown:	Phase 1
Black:	Phase 2
Grey:	Phase 3

 **The wires shall be exclusively connected on terminal block on the electrical panel** 

The wiring diagram is shown on an adhesive tag placed at the end of the power cable.

The electrical data are shown on a plate located on the front of the work area. The connection can be carried out, without any intervention on the machine, both to a 230VAC single-phase power supply and to a 400VAC N3 three-phase power supply, according to the following methods:

3.2.5 230VAC SINGLE-PHASE CONNECTION

Connect the two Earth and Neutral wires to the respective two terminals on the electrical power panel.

Connect the three phase 1, 2 and 3 wires together and connect them to the single phase terminal on the electrical panel.

3.2.6 400VAC N3 THREE-PHASE CONNECTION

Connect the two Earth and Neutral wires to the respective two terminals on the electrical panel.

Connect the three wires of phases 1, 2 and 3 to each terminal of the respective phases present on the electrical power panel.

3.2.7 FILLING THE HYDRAULIC CIRCUITS

- 1) Make sure the water mains is open.
- 2) Switch on the machine.



- 3) Activate the manual dispensing of each unit by pressing the button marked with the symbol: located on screen V1, until the complete elimination of the air contained in the hydraulic circuits and regular outflow of water.

3.3 ADJUSTMENTS

3.3.1 ADJUSTING THE INFUSION PRESSURE

The infusion pressure can be adjusted to optimise the product in the coffee cup. Recommended values range between 0.8 MPa (8 bar) and 0.9 MPa (9 bar).

Disassemble the lower steel panel (sub-front) positioned frontally on the working side of the machine, unfastening the screws that secure it.

Behind it there is positioned the pump with its adjustable pressure regulator using a screwdriver.



On the screen V3 of the left unit touch screen, the infusion pressure is indicated by means of the icon:

Dispense a coffee by pressing the manual dispensing button, marked with the symbol **K**, on the icon and adjust the pressure.

3.4 MAINTENANCE

3.4.1 ACCESS TO MAINTENANCE CONTROLS

By scrolling horizontally to the left on the touch screen of each unit, the screen V9 allows access to the screen V10 screen required for access to the maintenance controls.

These controls are reserved for the Installation/Maintenance Technician.

The Technician will enter a graphic password disclosed thereto on this screen and will be able to access the following:

- Special operating parameters of the equipment.
- Characteristic data of the specific specimen, so as to know the level of updating and the correct spare parts.
- Controls to set the equipment appropriately for the various operations to be performed (left unit only).
- Data reset controls.

ELEKTRA

ITALIAN ESPRESSO COFFEE MACHINES SINCE 1947

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