

INSTALLATION INSTRUCTION MANUAL



S8 DSP

S9 DSP







WEEE

Disposal of the equipment by the users within the European Community (WEEE) in compliance with the article 13 of the legislative decree issued on 25 July 2005, nr 151 "Implementation of the directives 2002/95/CE, 2002/96/CE e 2003/108/CE, concerning the decrease in the usage of dangerous substances in the electrical and electronic equipment and the disposal of waste".



The symbol of the crossed waste bin indicated on the equipment or on the packaging means that the product at the end of its lifetime must be disposed of separately from all the other waste.

The separate collection of this equipment coming at the end of its lifetime is organized and run by the importer/distributor. The user who should have to dispose of such equipment should get in touch with the importer/ distributor and follow the procedure they have adopted for the separate disposal of the equipment coming at the end of its lifetime. The proper separate disposal of disused equipment so that it can be recycled and treated according what is environmentally compatible contributes to avoid possible negative effects on the Environment and on Health and allows the reutilization and/or the recycling of the materials the equipment is composed.

The improper disposal by the user causes the enforcement of the administrative sanctions according to current regulations.





INDEX

GENERAL DESCRIPTION OF THE MACHINE 1.1 GENERAL DESCRIPTION OF THE CONTROL PANEL AND	
PROGRAMMING TOUCHPAD 1.2 GENERAL DESCRIPTION OF THE PUSH-BUTTON KEYBOARD	6 7
2. GENERAL WARNINGS FOR THE INSTALLER	8
3. REMOVING THE PACKAGING	
(SUPPLIED ONLY ON REQUEST OF THE CUSTOMER)	1
4. INSTALLATION1	
4.1 ELECTRIC INSTALLATION DIAGRAM1	
4.2 WATER MAINS INSTALLATION DIAGRAM1	
4.3 DRAINAGE SYSTEM1	5
	_
5. ELECTRICAL SWITCH ON OF THE APPLIANCE1	
	U
6 PROGRAMMING 1	-
6. PROGRAMMING1	7
6.1 PROGRAMMING THE BOILER TEMPERATURE1	7 7
	7 7
6.1 PROGRAMMING THE BOILER TEMPERATURE	7 7 7
6.1 PROGRAMMING THE BOILER TEMPERATURE	7 7 7
6.1 PROGRAMMING THE BOILER TEMPERATURE	7 7 7 8
6.1 PROGRAMMING THE BOILER TEMPERATURE	7 7 7 7 7 8 8 9
6.1 PROGRAMMING THE BOILER TEMPERATURE 1 6.2 PROGRAMMING COFFEE DOSES 1 6.3 PROGRAMMING HOT WATER DELIVERY FOR THE PREPARATION OF INFUSIONS 1 6.4 PROGRAMMING ACCESS BLOCK 1 6.5 TECHNICAL MENU 1 6.6 MACHINE FUNCTIONS 1 6.7 ECONOMY FUNCTION 1	7 7 7 7 8 8 9
6.1 PROGRAMMING THE BOILER TEMPERATURE 1 6.2 PROGRAMMING COFFEE DOSES 1 6.3 PROGRAMMING HOT WATER DELIVERY FOR THE PREPARATION OF INFUSIONS 1 6.4 PROGRAMMING ACCESS BLOCK 1 6.5 TECHNICAL MENU 1 6.6 MACHINE FUNCTIONS 1 6.7 ECONOMY FUNCTION 1 6.8 UP FUNCTION 2	7 7 7 7 8 8 9 0
6.1 PROGRAMMING THE BOILER TEMPERATURE 1 6.2 PROGRAMMING COFFEE DOSES 1 6.3 PROGRAMMING HOT WATER DELIVERY FOR THE PREPARATION OF INFUSIONS 1 6.4 PROGRAMMING ACCESS BLOCK 1 6.5 TECHNICAL MENU 1 6.6 MACHINE FUNCTIONS 1 6.7 ECONOMY FUNCTION 1 6.8 UP FUNCTION 2 6.9 WASHING THE BOILER 2	7 7 7 8 8 9 0 0
6.1 PROGRAMMING THE BOILER TEMPERATURE 1 6.2 PROGRAMMING COFFEE DOSES 1 6.3 PROGRAMMING HOT WATER DELIVERY FOR THE PREPARATION OF INFUSIONS 1 6.4 PROGRAMMING ACCESS BLOCK 1 6.5 TECHNICAL MENU 1 6.6 MACHINE FUNCTIONS 1 6.7 ECONOMY FUNCTION 1 6.8 UP FUNCTION 2	7 7 7 8 8 9 0 0
6.1 PROGRAMMING THE BOILER TEMPERATURE 1 6.2 PROGRAMMING COFFEE DOSES 1 6.3 PROGRAMMING HOT WATER DELIVERY FOR THE PREPARATION OF INFUSIONS 1 6.4 PROGRAMMING ACCESS BLOCK 1 6.5 TECHNICAL MENU 1 6.6 MACHINE FUNCTIONS 1 6.7 ECONOMY FUNCTION 1 6.8 UP FUNCTION 2 6.9 WASHING THE BOILER 2 6.10 WASHING THE UNITS 2	7 7 7 7 8 8 9 9 0 0
6.1 PROGRAMMING THE BOILER TEMPERATURE 1 6.2 PROGRAMMING COFFEE DOSES 1 6.3 PROGRAMMING HOT WATER DELIVERY FOR THE PREPARATION OF INFUSIONS 1 6.4 PROGRAMMING ACCESS BLOCK 1 6.5 TECHNICAL MENU 1 6.6 MACHINE FUNCTIONS 1 6.7 ECONOMY FUNCTION 1 6.8 UP FUNCTION 2 6.9 WASHING THE BOILER 2	7 7 7 7 8 8 9 9 0 0 1

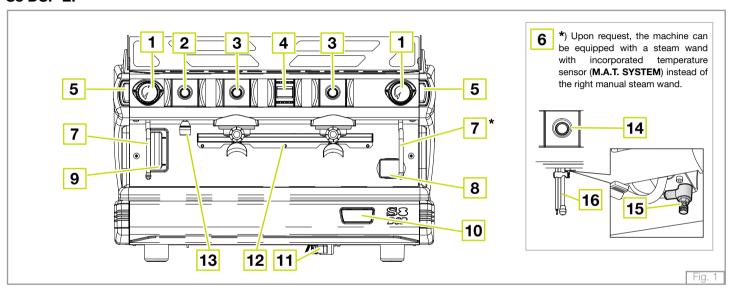
7.2	I.T.C	.21
7.3	M.A.T. AUTOMATIC SYSTEM FOR EMULSIFYING THE MILK	
	WITH ADJUSTABLE TEMPERATURE (OPTIONAL)	. 22
7.4	A.M. ("MIXED WATER") SYSTEM	
7.5	CASH REGISTER CONNECTION	. 23
7.6	TECHNICAL ASSISTANCE PROGRAM G.A	.24
7.7	CRONO FUNCTION (OPTIONAL)	.30
7.8	COUNTER FUNCTION (OPTIONAL)	.31
7.9	ALARMS	.33
7.10	NOTES FOR THE SERVICE ENGINEER	. 35
. DI	AGRAMS FOR ELECTRONIC BOARD CONNECTIONS	. 37
. DI . 8.1	AGRAMS FOR ELECTRONIC BOARD CONNECTIONS	
8.1		.37
8.1	ELECTRONIC CONTROL BOARD	.37 .38
8.1 8.2	ELECTRONIC CONTROL BOARD	.37 .38 .39
8.1 8.2 8.3	ELECTRONIC CONTROL BOARD	.37 .38 .39
8.1 8.2 8.3 8.4	ELECTRONIC CONTROL BOARD	.37 .38 .39 .40
8.1 8.2 8.3 8.4 8.5	ELECTRONIC CONTROL BOARD	.37 .38 .39 .40 .42
8.1 8.2 8.3 8.4 8.5 8.6 8.7	ELECTRONIC CONTROL BOARD EXPANSION BOARD 7-SEGMENT DISPLAY POWER DIAGRAM ELECTRIC DIAGRAM EXPANSION UNIT DIAGRAM HYDRAULIC DIAGRAM	.37 .38 .39 .40 .42 .44
8.1 8.2 8.3 8.4 8.5 8.6 8.7	ELECTRONIC CONTROL BOARD EXPANSION BOARD 7-SEGMENT DISPLAY POWER DIAGRAM ELECTRIC DIAGRAM EXPANSION UNIT DIAGRAM	.37 .38 .39 .40 .42 .44





1. GENERAL DESCRIPTION OF THE MACHINE

S8 DSP EP



LEGEND

- 1. Steam delivery knob
- 2. Hot water delivery knob
- 3. Coffee delivery push-button
- 4. Control panel
- 5. RGB light
- 6. Steam wand with incorporated temperature sensor (M.A.T.) (optional)

- 7. Steam wand
- 8. Pressure gauge
- 9. Boiler water level indicator
- **10.** Programming touchpad
- 11. Main on/off switch
- 12. Illumination led of cup grid
- 13. Hot water outlet
- 14. Automatic steam delivery button for milk

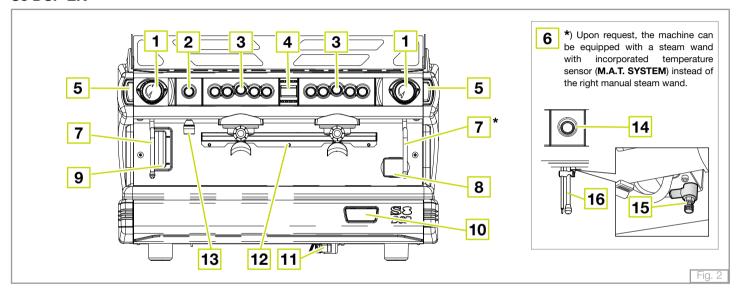
frothing M.A.T. (optional)

- **15.** Air adjusting for milk frothing (M.A.T. system)
- **16.** Steam wand with M.A.T. temperature sensor (optional)





S8 DSP EK



LEGEND

- 1. Steam delivery knob
- 2. Hot water delivery knob
- 3. Coffee delivery push-button keyboard
- 4. Control panel
- 5. RGB light
- 6. Steam wand with incorporated temperature sensor (M.A.T.) (optional)

- 7. Steam wand
- 8. Pressure gauge
- 9. Boiler water level indicator
- 10. Programming touchpad
- 11. Main on/off switch
- 12. Illumination led of cup grid
- 13. Hot water outlet
- 14. Automatic steam delivery button for milk

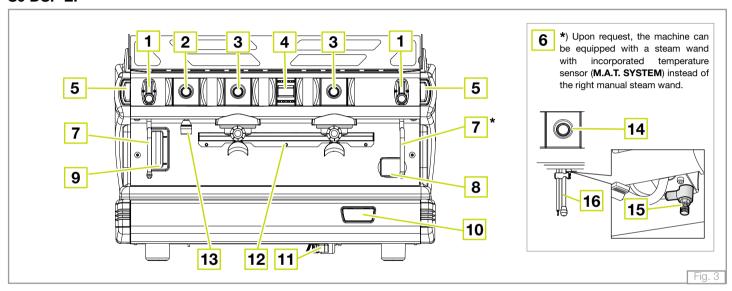
frothing M.A.T. (optional)

- Air adjusting for milk frothing (M.A.T. system)
- **16.** Steam wand with M.A.T. temperature sensor (optional)

S8·S9 DSP



S9 DSP EP



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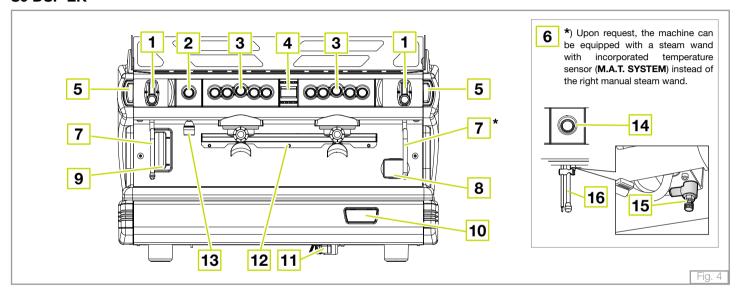
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S9 DSP EK



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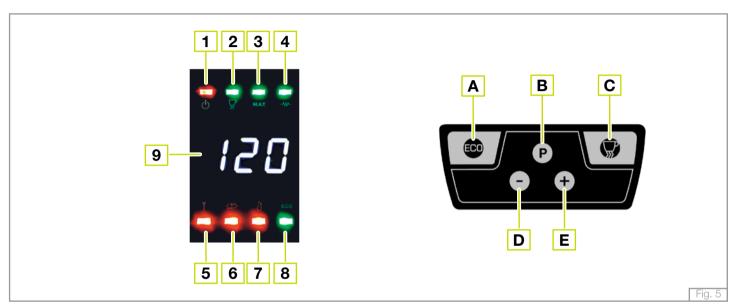
frothing M.A.T. (optional)

- **15.** Air adjusting for milk frothing (M.A.T. system)
- **16.** Steam wand with M.A.T. temperature sensor (optional)





1.1 GENERAL DESCRIPTION OF THE CONTROL PANEL AND PROGRAMMING TOUCHPAD



LEGEND OF CONTROL PANEL

- 1. Switch-on warning light
- 2. Cup warmer resistance warning light
- 3. M.A.T. system warning light
- 4. Thermal regulation status warning light
- 5. Technical assistance warning light
- 6. Faulty temperature sensor warning light
- Automatic water level status warning light
- 8. Eco mode warning light
- 9. Boiler temperature display

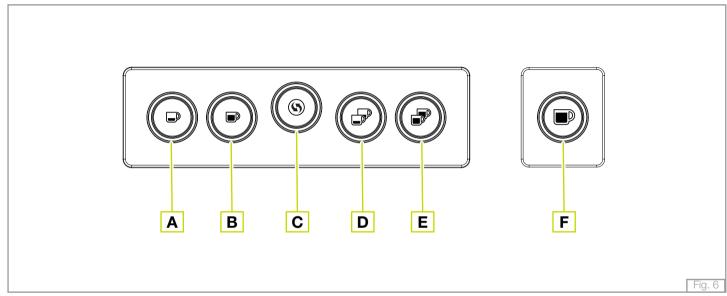
LEGEND OF PROGRAMMING TOUCHPAD

- A. Eco mode button
- B. Programming button
- C. Cup warmer resistance button
- D. Data decreasing button
- E. Data increasing button





1.2 GENERAL DESCRIPTION OF THE PUSH-BUTTON KEYBOARD



LEGEND OF EK VERSION: 5-KEY BOARD FOR COFFEE DELIVERY

- A. 1 short coffee key.
- **B.** 1 long coffee key.
- C. Continuous delivery key.
- D. 2 short coffees key.
- E. 2 long coffees key.

LEGEND OF EP VERSION: KEY FOR COFFEE DELIVERY

F. Manual coffee delivery key.





2. GENERAL WARNINGS FOR THE INSTALLER

Read carefully the instructions and warnings contained in this manual and in the "INSTRUCTION MANUAL FOR THE INSTALLER", since they provide important indications concerning the installation of the appliance.



This appliance may only be used for its intended purpose.

Any other use is therefore considered as improper and unreasonable.

The manufacturer cannot be held liable for any damage caused by improper, incorrect or unreasonable use.



Make sure that the customer has previously installed the systems according to the instructions indicated in the "USE AND MAINTENANCE MANUAL" provided with the appliance.



Make sure that the power rating of the system arranged by the customer corresponds to the highest rating indicated on the rating plate of the equipment.



The appliance is supplied without a plug. It is supposed to be directly connected to the electric mains and therefore, it is necessary to fit a single-pole switch with contact opening of 3mm or more beforehand, according to the regulations in force.







Danger!

If it becomes necessary to replace the machine's power supply cable, utilise only these types: CET ELECTRIC H07RN-F 5 x 2.5mm (400V) for 2/3 group versions, 5 x 4mm (400V) for 4 group versions - CET ELECTRIC SINGLE PHASE 3 x 2.5mm (220V) 2 group versions, 3 x 4mm (220V) for 3/4 group versions. Replacing the cable must be carried out by qualified personnel. The electrical safety of the appliance is fully achieved only after it has been correctly connected to an earthing system as required by the laws in force.



Danger!

The appliance must be supplied exclusively with cold drinking water. Maximum mains pressure (static pressure) must not be higher than 0.6 MPa.



Danger!

If in doubt, concerning the above mentioned requirements (about the system previously installed by the customer), please have them checked by qualified staff.



Danger!

The electrical safety of the appliance is fully achieved only after it has been correctly connected to an earthing system as required by the laws in force.



Attention!

Installation must be carried out by qualified personnel according to current laws and to the manufacturer's instructions. Incorrect installation may cause damage to people, animals or property for which the manufacturer cannot be held liable.







The appliance must be installed on a flat bearing surface, the stability of which needs to be checked.



The appliance must be installed where use and maintenance are restricted to trained staff.

The electrical power system, water supply system and drainage system must prearranged by the customer in an ideal position to permit the correct installation. The installer cannot modify existing systems that have been arranged by the customer. Refer to the chapter "Pre-installation arrangements organised by the customer" in the "USER AND MAINTENANCE MANUAL" attached to each machine.





3. REMOVING THE PACKAGING

After unpacking the machine, please check its integrity; in case of doubt, do not use it and consult the manufacturer. Packaging materials must not be left within children's reach since they are potentially dangerous.



Attention!

The appliance weight is more than 30 kg and therefore, it cannot be moved by a single person alone.



Take note!

Dispose of the packaging as per the norms in force of the country in which the machine is used.

3.1 STANDARD OUTFIT OF THE MACHINE

LEGEND

- A. 1 set of filter holders with relative spouts
- B. 1 complete set of hoses for connection to water mains
- C. 1 set of filters
- D. 1 set of shower heads
- E. 1 wrench for shower head removal
- F. 1 brush
- G. 1 motor-driven pump (unless already built in)
- H. 1 manual coffee tamper

3.2 OPTIONAL ACCESSORIES (Supplied only on request of the customer)

LEGEND

- I. Water softener
- L. Water line impurity filter
- M. Pressure reducer
- N. Detergent





4. INSTALLATION

Place the machine on the support surface, lifting it up only from underneath.

Adjust the feet so that the machine fits perfectly in a horizontal position and tilting slightly backwards.

Before connecting the machine to the supply systems, ensure that the data on the nameplates correspond with the ratings where the machine is installed.

4.1 ELECTRIC INSTALLATION DIAGRAM

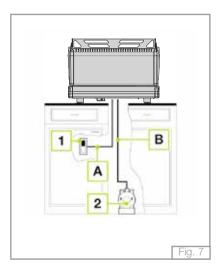
Take note of all warnings and advice in this manual when carrying out the electrical connection.

Furthermore, the power supply cable must be completely uncoiled to avoid dangerous overheating.

Check the voltage in the place of installation of the machine and then connect the power supply cable as shown in the figure below. The cables of the machine are marked in the following way:

- A Power supply cable of the machine;
- B Motor pump cable (when not incorporated in the machine).
 - a) Connect cable (A) directly to the single pole switch (1).
 - b) Connect cable (B) directly to the motor pump (2).

Versions of the machine with the motor pump incorporated do not have the cable (**B**).



Legend:

- Main switch (prepared by the customer);
- 2 Motor pump (if not built in).



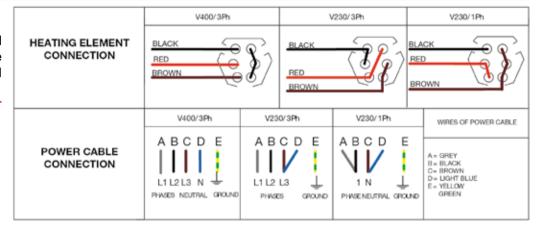
Connect the yellow/green conductor lead of cable (**B**) to the earth terminal on the motor pump (when the motor pump is not incorporated in the machine).







The light blue conductor lead of cable (A) is connected to the neutral phase of the electrical system.





Take note!

230 V single-phase connections are only possible with rating plate data refer a power less than 6300 W.

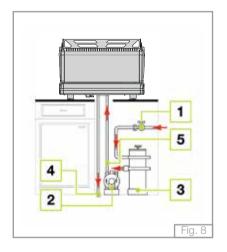




4.2 WATER MAINS INSTALLATION DIAGRAM

Attention!

The machine is supplied without water in the boiler to avoid exposure to temperatures less than 0°C that could cause irreparable damage.



Legend:

- 1 Water tap (previously installed by the customer).
- 2 Motor pump (provided with the machine when not built in).
- 3 Water softener (optional).
- 4 Drain siphon (previously installed by the customer).
- 5 High-pressure (supplied).

Carry out the connections as shown in Fig. 8 and taking into account the following instructions:

- Always use the hoses supplied with the machine to make water mains connections; never use any other hose or pipes already fitted.
- Make sure that hoses are not kinked, squashed or twisted.
- Fasten the ring nuts of the hoses firmly but without exerting too much pressure.







INSTALLATION OF THE WATER SOFTENER IS RECOMMENDED TO PROLONG THE LIFE OF THE MACHINE.

Before installing the machine, check the hardness of the water and fit a softener based on the instructions of the manufacturer and to standards and regulations in force.

Proceed to programme the automatic and/or volumetric softeners according to the manufacturer's instructions.



Danger!

If a water softener is not a part of the water system, it is necessary to apply a filter to the inlet hose of the motor pump to avoid the entry of impurities that could damage the motor pump or the machine.



Attention!

The motor pump must be installed at a distance to avoid drips or spurts of water and also to avoid salt from dropping onto the motor pump when filling the water softener with salt.

Before connecting the hose coming from the motor pump or from the water-softener, in case of appliances with built-in pumps, place it in a bucket and turn on the water tap (1- Fig. 8) for a couple of minutes in order to eliminate possible residues from the new hoses and in any case, until the water flows clear.

4.3 DRAINAGE SYSTEM

Assemble the push-fit drainage hose in the appropriate rubber holder of the collection basin of the machine and place the other end of the hose directly into the drainage u-pipe of the prearranged drainage system.

Check that the hose is not blocked or crushed along its length and it also has a sufficient incline to be able to drain without difficulty.



Danger!

Do not place the drainage hose in basins or buckets underneath the counter to avoid the possibility of creating receptacles of dirt with the consequent proliferation of bacteria.





5. ELECTRICAL SWITCH ON OF THE APPLIANCE

Shift to right the appliance switch placed under the bottom panel.

Filling with water:

After 3 seconds from switching on for the first time, the appliance will automatically fill the boiler with water.

At the end of filling, the filling indicator (7 - pag.6) will turn off.

For coffee preparation instructions, or for pouring hot water or dispensing steam for hot beverages, see the USE AND MAINTENANCE MANUAL.

Heating of the appliance:

Once the boiler is filled, the machine will heat up until it reaches the preset temperature.

The default boiler temperature is 120 °C, corresponding to a pressure value of 1 bar.

It may be necessary to change the preset temperature in order to make it appropriate to the coffee mixture to use.

For further information, some tutorials are available on following site page:

http://www.laspaziale.com/index.php/en/video





6. PROGRAMMING

Press and hold down the "P" key for 3 seconds to enter in Programming mode: the display will flash.



Take note!

Once entered in Programming mode, the appliance exits automatically from this mode after 60 sec. from the last pressure on any key.

6.1 PROGRAMMING THE BOILER TEMPERATURE

Press the "+" key to increase the boiler temperature.

Press the "-" key to reduce the boiler temperature.

6.2 PROGRAMMING COFFEE DOSES

Hook the portafilter with coffee in the 1st group on the right and press the key for 1 short coffee to begin pouring.

Once the cup contains the right amount of coffee, press the 1 short coffee key to finish pouring and to store this amount for all groups. Repeat this process for the other three coffee doses.

To programme the 2nd - 3rd - 4th group to be different from the others, press the continued delivery key for the required group and follow the procedure illustrated above.

6.3 PROGRAMMING HOT WATER DELIVERY FOR THE PREPARATION OF INFUSIONS

Press the "hot water delivery" key to start delivery of water.

Once the required amount of water is in the jug, press the same key to stop the ongoing delivery and save it to memory.

PROGRAMMING THE M.A.T. TEMPERATURE - optional (see page 22).

To exit from Programming mode, press the "P" key.





6.4 PROGRAMMING ACCESS BLOCK

Press and hold down the "cup warmer" key for 5 seconds to exit from Programming mode: in this way it is possible to enable the PROGRAMMING ACCESS BLOCK function.

When this function enabled, if you enter the programming mode with the "P" key, it is necessary to press immediately the "cupwarmer" key and hold it down for 5 seconds to enter the programming mode.

Otherwise the display will show "bc" for 2 seconds and then the machine will return to the working mode.

6.5 TECHNICAL MENU

Press and hold down the keys "+" and "-" for 15 seconds to enter in Technical Menu.

TEMPERATURE PROBE CALIBRATION

Open the tap of a steam wand, until the heating element starts warming up. The machine sets automatically at 120°C.

Now check if the boiler pressure is at 1 bar, otherwise press the "+" or "-" key to calibrate the temperature probe.

Each time that the "+" key is pressed, the temperature probe setting changes by 0.5°C, and the main display will read: 05, 10, 15, 20 etc..

Each time that the "-" key is pressed, the temperature probe setting changes by -0.5°C, and the main display will read: -05, -10, -15, -20 etc..

To exit from technical menu, press and hold down the "+" and "-" keys together.



The calibration of the temperature probe is performed in the factory during testing of the appliance.

Carry out this operation when the temperature probe and/or electronic control unit is replaced.

DEACTIVATION OF CONTINUOUS DELIVERY BUTTON

Inside the Technical Menu, press the continuous delivery button to deactivate all manual keys. Press again the same button to reactivate them.





DEMO FUNCTION

Inside the Technical Menu, press and hold down the "P" key for 15 seconds to activate the DEMO Mode:

all the machine Leds are on, the boiler display shows 120, but all functions are disabled.

Press and hold down the "P" key for 15 seconds to return to normal mode.

6.6 MACHINE FUNCTIONS

Legend of RGB LED

White colour: initial check.

Blue colour: boiler temperature < to 50°C

Yellow colour: boiler temperature from 50°C to 80 °C
Orange colour: boiler temperature from 80°C to 110° C
Red colour: boiler temperature from over 110° C

Blinking red colour: machine being warmed up Green colour: ECO function activated. Blinking Leds: coffee delivery in progress.

6.7 ECONOMY MODE

The mode economy is meant for power saving.

Press and hold the ECO key down for 3 seconds, the RGB Leds light up in green and the corresponding Led on the control panel starts blinking.

The boiler temperature gradually gets to 80° C.



When the Economy mode is active, it is not possible to make any type of delivery (all the push-button panels are deactivated).

Press again the ECO button, for disabling the ECONOMY mode.





6.8 UP FUNCTION

When the machine is operated in conditions which may considerably reduce its temperature, the boiler temperature can be increased by 2°C by pressing the "+" button for approximately 3 seconds. The main display alternates the visualisation of the temperature with the **UP** indication.

To deactivate the **UP** function, keep the "-" button pressed.

6.9 WASHING THE BOILER

Keep the "hot water delivery" button pressed per 3 seconds. The machine dispenses water from the wand for 2 minutes and then resets the correct level of water in the boiler. During the washing of the boiler, the 3 central lines of the display are blinking. To stop the boiler washing, press again the same button.

6.10 WASHING THE UNITS

Press and keep pressed any continuous dispensing button for 15 seconds. Then press the continuous dispensing button of one of the dispensing units to activate the WASHING UNITS function that consists of alternating dispensing of 5 seconds and 5 seconds at stop. Press the continuous dispensing button again of the concerned unit to finish the washing of the units.

To exit from the WASHING UNITS function, press and keep pressed the continuous dispensing button of one of the units for 5 seconds.





7. OPTIONAL

7.1 ELECTRIC CUP WARMER

The appliances can also be equipped with an electric cup warmer (as optional) for an additional cup heating.

The corresponding led (2 - Fig. 5), on the control panel, lights on.

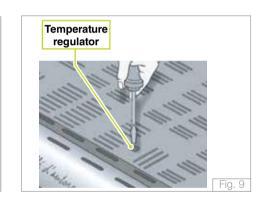
Press the same button to switch it off.

7.2 INDIVIDUAL TEMPERATURE CONTROL - I.T.C.

This system makes it possible to set a different coffee brewing temperature for each delivery group.

The temperature of each group is independent from the temperature set in the boiler.

To vary the temperature on a group, use the corresponding regulator alongside the group itself, which can be reached through the opening in the top of the upper cup grid (**Fig. 9**). Turn the adjustment screw anticlockwise to decrease the temperature. Turn the adjustment screw clockwise to increase the temperature.





Every full turn of the adjustment screw corresponds to a change of approximately 2 °C. Changes must only be made to adapt the temperature of the delivery group to the coffee blend being used, so as to improve the result in the cup.





7.3 AUTOMATIC MILK FOAMING SYSTEM - M.A.T. - (optional)

The M.A.T. system can be used for automatic milk foaming, under constant temperature and making an homogeneous cream.

PROGRAMMATION OF THE TEMPERATURE

Once entered in programming mode, press the button for M.A.T. steam dispensing: the display will show the temperature set by the M.A.T. probe, then press the "+" key to increase it or the "-" key to decrease it.

Temperature range: from 45 to 85°C.

After setting the temperature, it is necessary to set the air suction using the milk foamer regulator behind the front panel, close to the steam wand with the steam wand with temperature probe (**Fig. 10**).

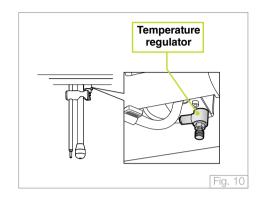
Turn the adjustment screw anticlockwise to increase milk foaming.

Turn the adjustment screw clockwise to reduce milk foaming.

An approximate calibration is carried out during the test testing phase, loosening the adjustment screw by one and a half turns.



When adjusting the milk foaming level, take care not to touch the steam wand with temperature probe or wear protective gloves, to prevent possible burns.

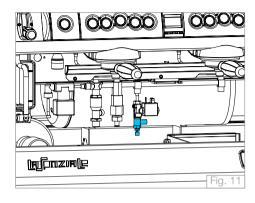




S8·S9 DSP

7.4 A.M. ("MIXED WATER") SYSTEM

The function "MIXED WATER" allows to adjust the temperature of the water dispensed from the wand, by means of a knob placed behind the cover panel (see Fig. 11). Turn the knob clockwise to descrease the water temperature.



7.5 CASH REGISTER CONNECTION

The appliance can be connected with the cash register by a 32 relays interface. For further information about this system, contact La Spaziale S.p.A..



If the appliance is set to be connected to the cash register but the interface is not connected, each time that a doses button is pressed, the corresponding symbol is blinking and the water doesn't come out to the group head. All the manual buttons are off.

To go back to standard mode, switch off the machine, then switch it on pressing down the ECO key for 5 seconds.

Switch the machine off again and then switch it on.



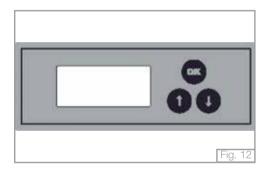


7.6 TECHNICAL ASSISTANCE - G.A.

This function makes it possible to organise regular routine maintenance for the delivery groups (enabling the SERVICE menu) and/or the replacement of the filter cartridge or resin regeneration for the softener (enabling the FILTER menu).



To enable these controls it is necessary to have the technical assistance display (Fig. 12).



Once connected the display to the machine, the display shows: LA SPAZIALE, the software version and then following message:







to indicate that the technical assistance is deactivated.

To enable one or both available controls, proceed as follows: hold down the button



for about **3 seconds**, this opens the **SERVICE** menu and the display will read:



Where " \boldsymbol{Y} " (Yes) will be flashing. To select " \boldsymbol{N} " (No) press one of the 2 arrow keys

(**), "N" will start to flash. If you press the button (**), the control of delivery cycles will remain deactivated, passing directly to the softener **FILTER** settings.

If you confirm with "Y" (Yes), pressing the button , you enable the control and move to the setting of the number of solenoid valve insertion cycles, a number which decreases at every delivery operation. The display now shows:



Where the first "0" on the right is flashing; when the button is pressed, this increases the number (0 - 9), while pressing the button , moves onto the most important digit on the left (the selected digit flashes to indicate that it can be changed). Once the required delivery cycle value has been set, confirm the setting by pressing the button .

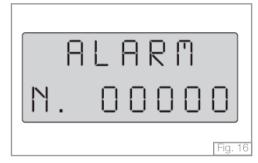






The set number is not a count of the number of cups of coffee delivered by the appliance, it is just a control over the solenoid valve insertion cycles for the groups (and therefore, for example, 100 solenoid valve cycles do not correspond to 100 delivered cups of coffee).

Confirming the setting makes it possible to enter a minimum number of cycles which, when reached, will cause the appliance to display an alarm on the control panel by switching on the relevant control light (b). The display will read:



Where the first "0" on the right is flashing. When the button is pressed, this increases the number (0 -9), while pressing the button

, moves onto the most important digit on the left (the selected digit flashes to indicate that it can be changed).

Once the delivery cycle alarm value has been set, confirm the setting by pressing the button



The number cannot be greater than or equal to the maximum number of solenoid valve cycles set previously.





After confirming the setting, the program passes onto the settings for the softener FILTER menu.

The display will show:

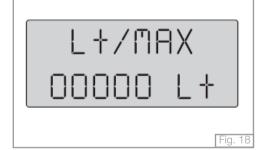


Where "Y" (Yes) will be flashing. To select "N" (No) press one of the 2 arrow keys "N" will start to flash. If you press the button "x", the control of the softener filter remains deactivated, quitting the programming function and returning to the initial screen.

If you confirm with "**Y**", pressing the button end of the number of softener litres, after which it is necessary to replace the filter. The number decreases at every delivery operation. The display must read:

Where the first "0" on the right is flashing. When the button is pressed, this increases the number (0 - 9), while pressing the button , moves onto the most important digit on the left (the selected digit flashes to indicate that it can be changed).

Once the litre value has been set, confirm the setting by pressing the button At this point it is possible to enter a minimum number of litres, after which the appliance will display an alarm on the control panel (6) by switching on the relevant control light. The display will read:









Where the first "0" on the right is flashing. Pressing the button **(1)**, will increase the

number (0 - 9), while pressing the button , moves to the most important digit on the left (the selected digit will flash to show that it can be changed). Once the litres

value has been set, confirm the setting by pressing the button and it is possible to quit the programming function.



The number cannot be greater than or equal to the maximum number of solenoid valve cycles set previously.

With the controls enabled and the display connected, the display will show the remaining number of cycles before it is necessary to proceed with maintenance

Or the number of litres remaining before the softener **FILTER** cartridge needs to be replaced:











The visualization is alternatively shown on the display only if both controls have been enabled, otherwise, only the enabled control is displayed.

The number of cycles is decreased after every 50 solenoid valve activations. The number of litres for the filter is reduced after every 10 litres of water con-

sumed.

URITING DATA

Fig. 22

Setting the softener filter parameters.

To access the menu to set softener filter parameters, press and hold down all three

kevs ok



for 3 seconds.

The display will read:

|MPULSE |=0,54 ml

Fig. 23

Where "0,54" is the correspondence between a flow meter pulse and the amount

of water delivered by the group given in millilitres. Pressing the buttons decreases or increases the setting (0.30 ml - 0.90 ml).

Pressing the button , confirms the setting and the display will read:

LEVEL =1750 ml

Fig. 24





Where "1750 ml" is the correspondence between 1 minute of operation of the automatic boiler refill system and the amount of water introduced, given in millilitres.

Pressing the buttons (1000 ml – 2000 ml).

Pressing the button , confirms the setting and returns to the initial display menu.

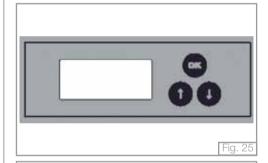
7.7 CHRONO FUNCTION (optional)

Chrono function allows to visualize on a display the delivery time of each coffee delivery group.

When the machine is switched on, the display will first show the display software version.

When any button of the 1st, 2nd, 3rd, 4th group is pressed, the display will show the delivery time of the selected group.

At the end of the delivery, the extraction time stays on the display until the next delivery.









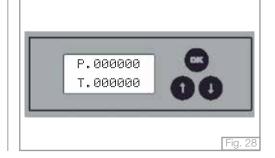
In the event of simultaneous deliveries on different groups the display shows the delivery time of the last activated group.



Push the button to visualize the delivery times of the groups that had been previously activated.

7.8 COUNTER FUNCTION (optional)

COUNTER function allows to record the number of cups of coffee that have been delivered by the machine.







Once the machine is switched on, the display shows for a few seconds the date and then the partial and total counters.

By pushing the "one short coffee" and "one long coffee" buttons, the counters are increased of one unit. By pushing the "two short coffee" and "two long coffee" buttons, the counters are increased of two units.



Take note!

The counters are increased only when the deliveries are equal to or longer than 7 seconds.

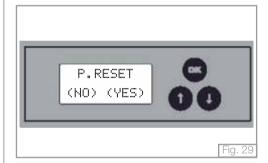
RESET

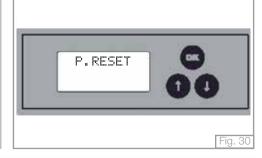
To reset the partial counter, push the button and hold it for 3 seconds; the display will show:

With the (NO) sign flashing.

Push the button (1), the (YES) sign flashes, push the button to confirm the partial counter reset; the display will show for some seconds:

Then the display shows the counters again.









7.9 ALARM MANAGEMENT

The alarms are signalled by the blinking of the control panel warning lights. In case of machine lock alarm, all the control panel warning lights are switched off.

SYMBOL	ALARM TYPE	PROBLEM
LED flashing on the selected button (EK Version)	Volumetric system faulty.	Grinding is too fine. No detection of the impulses of the volumetric counter relative to the dispensing unit.
	Auto-levelling system faulty.	The automatic filling of the water in the boiler has been inserted for more than 3 minutes (8 minutes from the initial switching on). TOTAL BLOCKAGE OF THE MACHINE.
-W-	Thermal regulation faulty.	When the temperature detected by the sensor is less than 60°C (total blockage of the machine) or exceeds 135°C (total blockage of the machine), after 20 minutes of being switched on.
-5.15-	Boiler temperature sensor faulty.	Temperature sensor in short circuit or interrupted (total blockage of the machine).
M.A.T.	M.A.T. system temperature sensor faulty.	M.A.T. temperature sensor in short circuit or interrupted.

ACCESS TO THE PROGRAMMING BLOCKED

The main display visualises the "bc" symbol.

TECHNICAL ASSISTANCE SYMBOL LIGHT ON

(only if SERVICE control has been set by the Technical Assistance):

This means the number of pre-set solenoid valve action cycles has reached the set alarm threshold.





TECHNICAL ASSISTANCE SYMBOL FLASHING

(only if FILTER control has been set by the Technical Assistance):

This means the number of pre-loaded litres for the softener has reached the set alarm threshold.

CONTINUOUS COFFEE DISPENSING LED SWITCHED OFF

Counter Function enabled or Interface Function with cash register enabled.



7.10 NOTES FOR THE SERVICE ENGINEER

SETTING THE ELECTRONIC CONTROL BOARD

The electronic control board can be set to manage two different water level controls (probe or float) and to control the two different group delivery versions: automatic (EK) or semiautomatic (EP).

The electronic control board is equipped with a selector to configure the board.

WATER LEVEL CHECK

Based on the type of boiler water level control, it is necessary to set the electronic board as follows:

- Move the selector to "S" if the PROBE water level control is used (conduction probe).
- Move the selector to "R" if the FLOAT water level control is used (magnetic reed).

GROUP DELIVERY CONTROL

Based on the type of group delivery control, it is necessary to set the electronic board as follows:

- Move the selector to "EK" if the 5-key button pad with programmable doses (automatic version) is used.
- Move the selector to "EP" if the 1-key button pad (semiautomatic version) is used.



Take note!

These settings are factory set during inspection.

Only after replacing the electronic board, make sure that the new board has been set to work with the water level and type of delivery control used on the appliance.

LIGHT INTENSITY ADJUSTMENT

To increase the light intensity of the bar that illuminates the cup grid, turn anticlockwise the screw of the switching power supply, positioned under the cup grid, inside the electric box.

RGB LED CUSTOMIZING

It is possible to change the color of the RGB leds, when the boiler temperature is above 110°C.

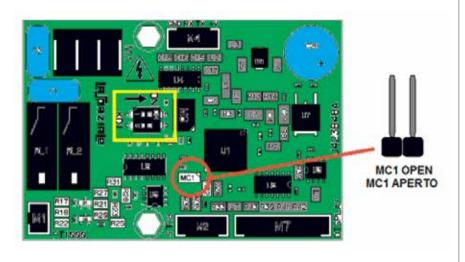
Switch on the machine, while pressing down the **ECO** and "-" buttons, after the initial check it is possible to select the **P** button between the <u>RED and WHITE</u> colors. Once selected the color, switch the machine off and on again to confirm the data. Depending on the selected color, above the temperature of 110°C detected by the probe, the RGB LEDs display the selected color.

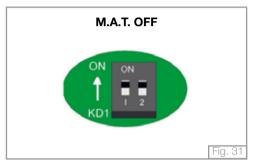


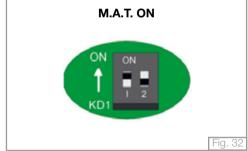


EXPANSION BOARD COD. 8893

The M.A.T. Board code 8893 is compatible with the machines Series S40 Classic_ Suprema and S8/S9 DSP depending on the configuration of the contact MC1:





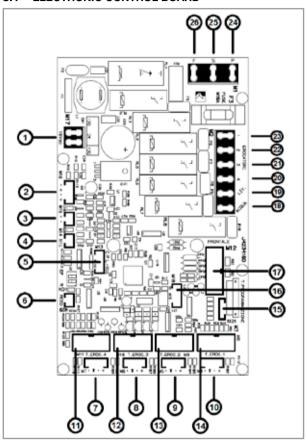






8. DIAGRAMS FOR ELECTRONIC BOARD CONNECTIONS

8.1 ELECTRONIC CONTROL BOARD



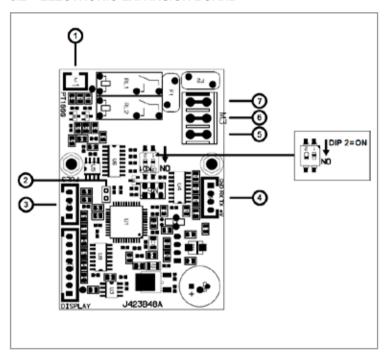
LEGEND:

- 1 = Transformer connection 10 V ac
- 2 = Connection for static relays
- 3 = Boiler water level probe connection
- **4** = Boiler temperature probe connection PT1000
- **5** = Button connection for hot water delivery
- 6 = Connection for boiler water level float
- 7 = Volumetric counter for 4th group from the right
- 8 = Volumetric counter for 3rd group from the right
- 9 = Volumetric counter for 2nd group from the right
- 10 = Volumetric counter for 1st group from the right
- 11 = Connection for keyboard of 1st group from the right
- **12** = Connection for keyboard of 2nd group from the right
- 12 Connection for Reyboard of 2nd group from the right
- **13** = Connection for keyboard of 3rd group from the right
- **14** = Connection for keyboard of 4th group from the right
- 15 = Connection for programming keyboard
- 16 = Serial connection TTL
- **17** = Connection for 7-segment display
- 18 = Solenoid valve for hot water delivery for infusions
- 19 = Solenoid valve for boiler water filling
- 20 = Solenoid valve, 4th group from the right
- 21 = Solenoid valve, 3rd group from the right
- 22 = Solenoid valve, 2nd group from the right
- 23 = Solenoid valve, 1st group from the right
- **24** = Motor pump connection
- **25** = Cup warmer heating element connection
- 26 = Phase connection 230 Vac





8.2 ELECTRONIC EXPANSION BOARD



LEGEND:

- **1** = M.A.T. system temperature probe PT 1000 connection
- **2** = Jumper (*must be open*)
- **3** = M.A.T. system button connection
- 4 = Serial 232 connection
- 5 = AIR M.A.T. solenoid valve
- 6 = M.A.T. system solenoid valve
- 7 = Phase 230 Vac

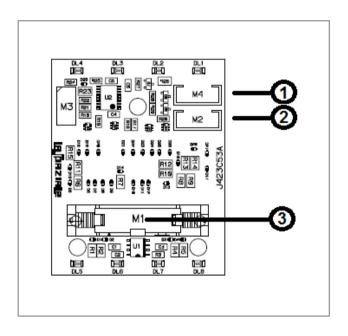


The expansion control board is configurated correctly for the machines Series S8-S9 DSP, with the JUMPER (2) open and the DIP no. 2 in ON position.





8.3 7-SEGMENT DISPLAY



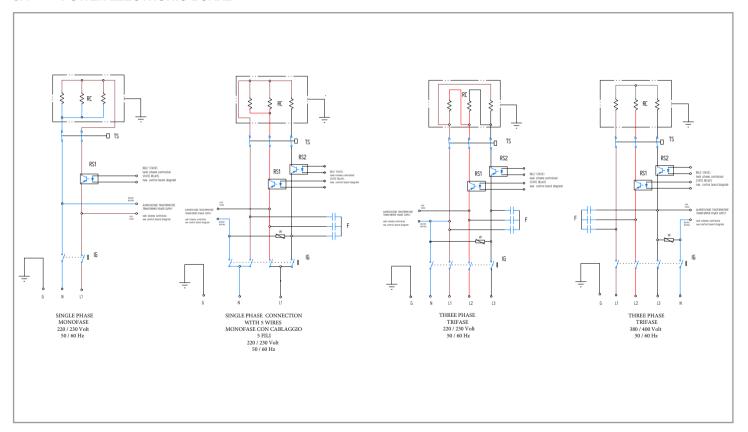
LEGEND:

- 1 = Connection for right LED RGB
- 2 = Connection for left LED RGB
- 3 = Connection for electronic board





8.4 POWER ELECTRONIC BOARD







LEGEND:

G = Ground

N = Neutral

L1 = Line 1 phase

L2 = Line 2 phase

L3 = Line 3 phase

IG = Main switch

RS1 = Static relay 1

RS2 = Static relay 2

TS = Safety thermostat

RC = Boiler heating element

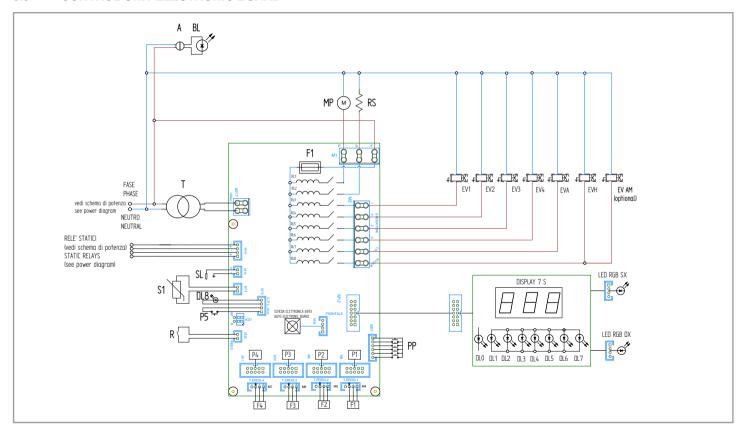
F = Electric board

VR = Varistor





8.5 CONTROL UNIT ELECTRONIC BOARD





S8·S9 DSP

LEGEND:

Т Transformer 230/10 Vac 1A

Α = Switching feeder

100/240Vac-24Vcc 0.5A 50/60Hz

BL = Led bar for cups lighting

MP = Pump motor

RS = Cup warmer heating element

F1 = Fuse

SL = Boiler level probe

S1 = Boiler temperature probe PT1000

DL8 = Hot water delivery button led **P5** = Hot water delivery button

R = Reed

P1 Touchpad, 1st group from the right

P2 Touchpad, 2nd group from the right

P3 Touchpad, 3rd group from the right P4

Touchpad, 4th group from the right F1

Flow meter for 1st group from the right

F2 = Flow meter for 2nd group from the right F3

= Flow meter for 3rd group from the right F4 = Flow meter for 4th group from the right

PP = Programming push-button

EV1 = Coffee delivery solenoid valve for 1st group from the right

EV2 = Coffee delivery solenoid valve for 2nd group from the right

EV3 = Coffee delivery solenoid valve for 3rd group from the right

EV4 = Coffee delivery solenoid valve for 4th group from the right

 Automatic level solenoid valve EVA

EVH Hot water delivery solenoid valve EV AM = Water mixing solenoid valve

DLO = Pilot light ON/OFF

DL1 = Pilot light for cup warmer heating element

DL2 = Pilot light for M.A.T. system DL3 = Pilot light for thermoregulation

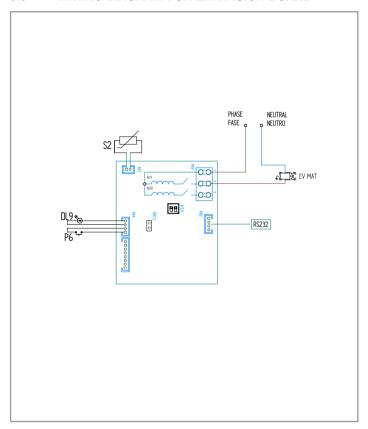
= Pilot light for G.A. technical service DL4 DL5 = Pilot light for boiler temperature probe

DL6 = Pilot light for automatic level DL7 = Pilot light for ECO function.





8.6 WIRING DIAGRAM FOR EXPANSION BOARD



LEGEND:

S2 = M.A.T. system temperature probe PT 1000

DL9 = Steam delivery button ledP6 = Steam delivery button

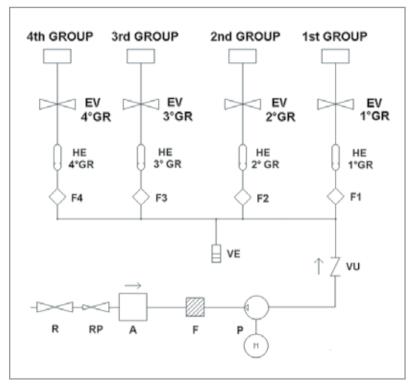
EV MAT = Steam delivery solenoid valve

KD1 = M.A.T. system DIP
MC1 = M.A.T. system bridge





8.7 HYDRAULIC DIAGRAM



LEGEND:

R Water cock (put in place by end customer)

RP Pressure reducer (optional)

A Softener (optional)

F Impurity filter (optional)

P Motor pump

VU 1-way valve

VE Expansion valve

F1 Volumetric counter for 1st group from the right

F2 Volumetric counter for 2nd group from the right

F3 Volumetric counter for 3rd group from the right

F4 Volumetric counter for 4th group from the right

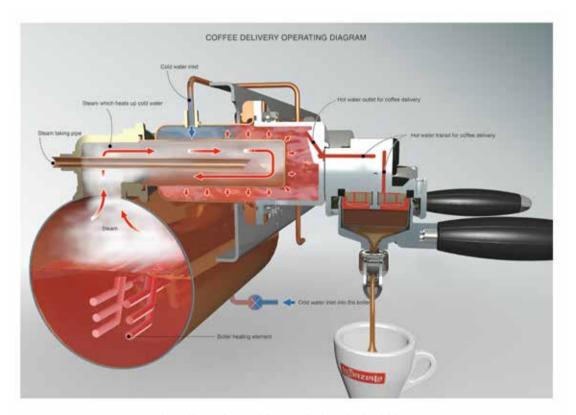
HE Heat exchanger

EV 3-way solenoid valve.





All LA SPAZIALE espresso machines are made with a heat exchanger system between the boiler and the coffee delivery group. A special patented system, the only one in the world, for heat adjustment of the delivery group, based on the circulation of steam instead of water.

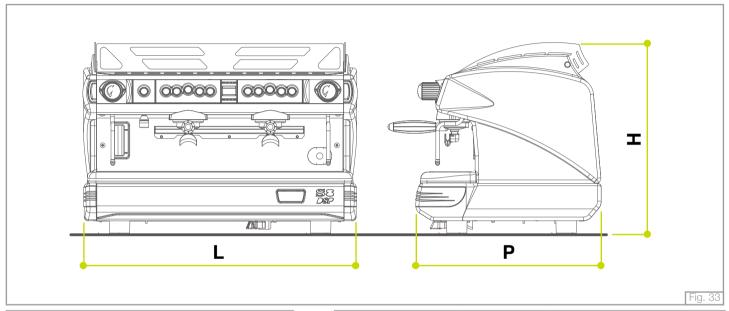


http://www.laspaziale.com/index.php/en/video





9. TECHNICAL DATA



DIMENSIONS AND WEIGHT				
S8 DSP • S9 DSP	2 GR	3 GR	4 GR	
L	770	1000	1235	
Н	520	520	520	
Р	530	530	530	
WEIGHT KG	65	80	97	

POWER SUPPLY RATING AND ABSORPTION				
S8 DSP • S9 DSP	2 GR	3 GR	4 GR	
VOLT	400/220-240	400/220-240	400	
Hz	50/60	50/60	50/60	
W	3300	4300	6300	
W+	3800	6300 (400V)	-	





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