

ITALIANO	7 – 15
ENGLISH	17 – 25
DEUTSCH	25 – 34

INDEX

1 - INTRODUCTION	18
2 - MACHINE FUNCTION	18
2.1 - MACHINE USE	
3 - SAFETY WARNINGS	18
3.1 - MISUSE	
3.2 - RESIDUAL RISKS	
3.3 - INSTRUCTION FOR THE POWER SUPPLY CORD	
3.4 - IMPORTANT SAFEGUARDS	
4 - TECHNICAL DIAGRAM AND SPECIFICATIONS	20
5 - FIRST USE OR REUSE	22
5.1 - WATER SYSTEM	
5.2 - PRESSURE SWITCH REGULATION	
5.3 - PUMP PRESSURE SETTING	
6 - COFFEE PREPARATION	23
7 - CONTROL GROUPS	23
7.1 BREWING PRESSURE PROFILING CONTROL	23
8 - HOT WATER DELIVERY	23
9 - PREPARATION OF OTHER DRINKS (MILK, CAPPUCCINO AND OTHER DRINKS)	24
10 - MAINTENANCE AND CLEANING OPERATIONS	24
10.1 - STEAM DELIVERY NOZZLE CLEANING	
10.2 - BREWING UNIT AND JET CLEANING	
10.3 - FILTER AND FILTER - HOLDER CLEANING	
10.4 - DRAIN TRAY CLEANING	
10.5 - CASING CLEANING	
11 - REPLACING THE GROUP GASKET	24
12 - TROUBLESHOOTING	25

1 - INTRODUCTION

This instruction manual is an integral part of the machine, it should be read carefully and should always be available for consultation; it should be kept for the whole life of the machine.

In case of lost or deterioration, you can ask for a new manual from an authorised **SERVICE CENTRE**.

The manual contains the information regarding the proper use of the machine, to its cleaning and maintenance, and it supplies important indications for carrying out operations requiring special attention and for possible residual risks.

The manual reflects the technological innovations at the time of its publishing; the manufacturer reserves the right to introduce all the technical modifications required on its products and to update the manuals with no obligation to also review the previous versions.

LA PAVONI S.p.A. declines any liability for damages that may be directly or indirectly caused to people or things caused by the following reasons:

- failure to comply with all the prescriptions of the current safety regulations;
- improper installation;
- improper voltage;
- illegitimate or incorrect use of the machine;
- incorrect use as specified in this manual;
- serious maintenance shortcomings;
- alterations on the machine or any unauthorised intervention;
- non original use of spare parts which are not especially meant for the model;
- total or partial failure with the instructions;
- exceptional events.

2 - MACHINE FUNCTION

This machine is suitable for home preparation of espresso coffee using a blend of coffee, for the withdrawal and delivery of hot water and/or steam, and of hot milk.

The user must read carefully and clearly understand the directions contained in the manual, in order to use the machine properly.

2.1 - MACHINE USE

The models deliver:

- drinks made out of ground coffee beans
- hot water and steam for the preparation and warming of drinks
- hot milk
- beverages based on coffee and warm / hot milk.

3 - SAFETY WARNINGS

The user has to follow the safety regulations in force in the country where the machine is used, in addition to the rules suggested by common sense and the directions contained in this manual.

In order to guarantee proper operation of the machine and preservation in time of its features, the user is advised to check the right environmental conditions (room temperature must range between 5° and 35° C). To avoid the use of the machine in places where jets of water are used in outdoor environments exposed to the action of the weather (sun, rain, etc.).

After removing the machine from its packaging, make sure that it is intact and it is not damaged.

The packaging must be delivered to the proper waste disposal centres and in no case left unattended or to the reach of children or animals.

Before starting the machine, make sure that the power supply voltage specified in

the data plate placed under the base of the machine is used in the country.

Put the machine in a safe place, on a solid base, away from heat sources and out of the reach of children.

Before connecting and disconnecting the machine, make sure that the ON/OFF switch is on the OFF position.

Do not use the machine if it is not working properly or if the main cable or the plug are damaged; the user is advised to replace the main cable or to have the machine checked by an authorised **SERVICE CENTRE**.

Do not touch the hot surfaces (boiler, unit, filter holder, steam supply nozzle) to avoid burns.

Do not remove the filter-holder during coffee delivery, to avoid possible burns.

Under no circumstances you must put your hands under the unit and the steam supply nozzle, since the liquids or steam delivered are overheated and may cause burns.

Make sure you do not operate the machine without water, to avoid damages to the heating element.

To avoid damages, use only accessories and spare parts that have been approved by the manufacturer.

In case of machine failure or faulty operation, switch it off. Do not try to repair it yourself but refer to an authorised **SERVICE CENTRE** to have any worn or damaged parts replaced with original spare parts.

In case of unauthorised repairs carried out on the machine, **or the use of non original spare parts, the guarantee is not valid anymore** and the manufacturer will reserve the right to no longer acknowledge its validity.

Do not use the machine outdoors.

Do not use the machine for any use different from the one for which it has been manufactured.

To avoid fires, electric shocks and personal damage, never immerse the machine, the main cable or other electrical components in water.

In case of fire, use carbon dioxide (CO₂) fire extinguishers. Do not use water or steam extinguishers.

Before any cleaning or maintenance operation, switch the machine off by placing the ON/OFF switch on the OFF position and remove the plug from the power socket without pulling the main cable.

This appliance is for household use. Any repairs or servicing operations, with the exception of normal cleaning and maintenance operations must be undertaken by an authorized service centre.

Check voltage to be sure that the voltage indicated on the plate agrees with your voltage.

Never use warm or hot water to fill the water tank. Use cold water only.

Keep your hands and the cord away from hot parts of the appliance during operation.

Never clean with scouring powders or hard implements.

To avoid your machine scaling up, use purified or bottled water.

Do not immerse base in water.

This appliance must not be used by persons (included children) with physical, sensory

or mental reduced capabilities, or without experience and knowledge unless they had been instructed or supervised by a responsible person for their security.

The children must be supervised to assure that they don't play with the appliance.

This appliance is addressed to domestic use such as: Kitchens



reserved to shops staff, offices and other professional rooms; farms, hotels, motels and other residential places and also bed and breakfast.

3.1 – MISUSE

In case of misuse any form of guarantee is not valid and the manufacturer declines any liability for damages to people and/or things.

Will be regarded as misuse:



- any different use from the one declared;
- any intervention on the machine that is not in line with the indications listed in this manual;
- any use of the machine that has been tampered with components or safety devices;
- use of the machine outdoors.

3.2 – RESIDUAL RISKS

The user cannot be protected against direct jets of steam or hot water; therefore he should be extremely careful in handling the machine to avoid burns or scalds.

The manufacturer declines any liability for damages to things, people or animals, caused by any intervention on the machine by non qualified people or who have not been authorised to carry out for these functions.

3.3 – INSTRUCTIONS FOR THE POWER SUPPLY CORD

A short power-supply cord is provided to reduce risks of getting tangled up or tripping over a longer cord.

Longer extension cords are available and may be used if care is exercised in their use.



If a long extension cord is used :

- the marked electrical rating of the extension cord should be at least as great as the electrical rating of the appliance.
- the appliance is of the grounded type, the extension cord should be a grounding type
- the cable does not hang from the table to avoid the risk of getting caught up in it.

3.4 – IMPORTANT SAFEGUARDS

When using electrical appliances, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and/or injury to persons, including the following:

- 1** Read all instructions and information in this instruction book and any other literature included in this packaging referring to this product before operating or using this appliance.
- 2** Do not touch hot surface. Use handles or knobs.
- 3** To protect against fire, electric shock and personal injury do not immerse cord, plugs, or appliance in water or other liquid.
- 4** Close supervision is necessary when any appliance is used by or near children.
- 5** Unplug from outlet when not in use and before cleaning. Allow to cool before putting on or taking off parts and before cleaning the appliance.

6 Do not operate any appliance with a damaged cord or plug or in the event of appliance faults or damages, Return appliance to the nearest authorized service centre for examination, repair or adjustment.

7 The use of accessory attachments not recommended by the appliance manufacturer may result in fire, electric shock or personal injury.

8 Do not use outdoors.

9 Do not let cord hang over edge of table or counter, or touch hot surface.

10 Do not place on or near hot gas or electric burner, or in a heated oven.

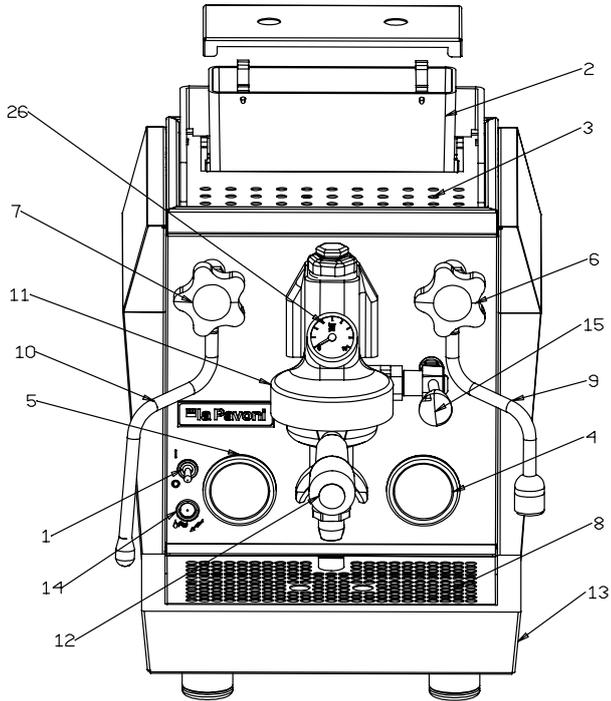
11 Always turn appliance to "0", then plug cord into the wall outlet. To disconnect, turn switch to "0", then remove plug from wall outlet.

12 Do not use appliance for other than intended household use.

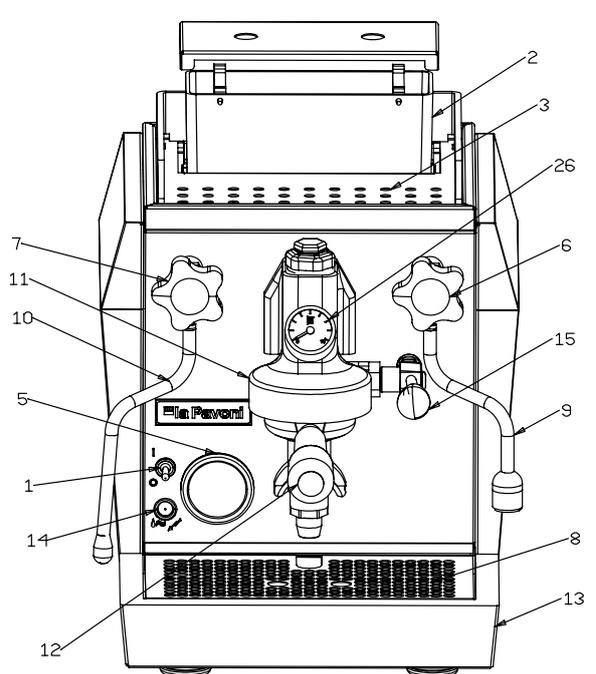
13 Use extreme caution when using hot steam.

2. CHARACTERISTICS AND TECHNICAL DATA

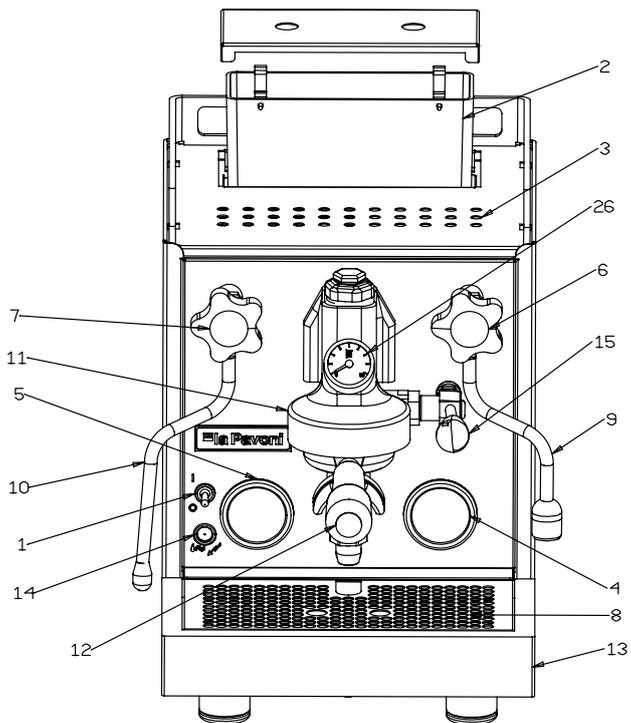
GIOTTO EVOLUTION (GEV)



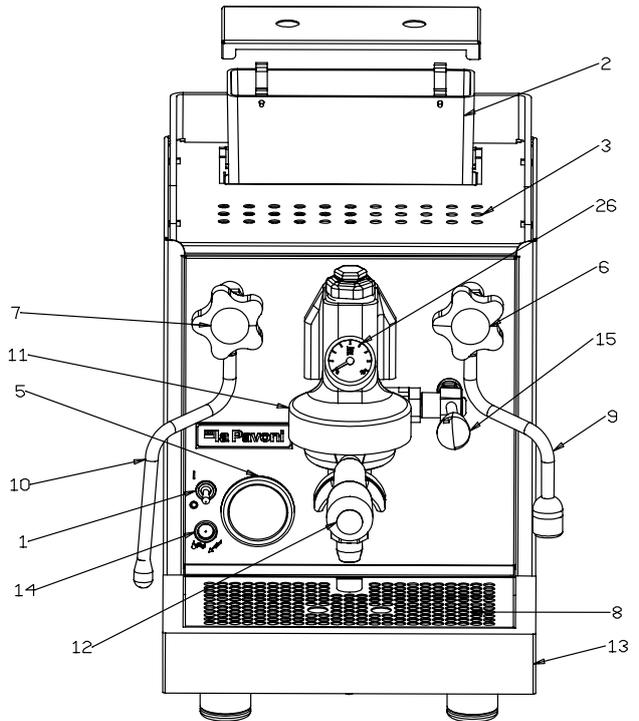
GIOTTO PREMIUM (GIM)

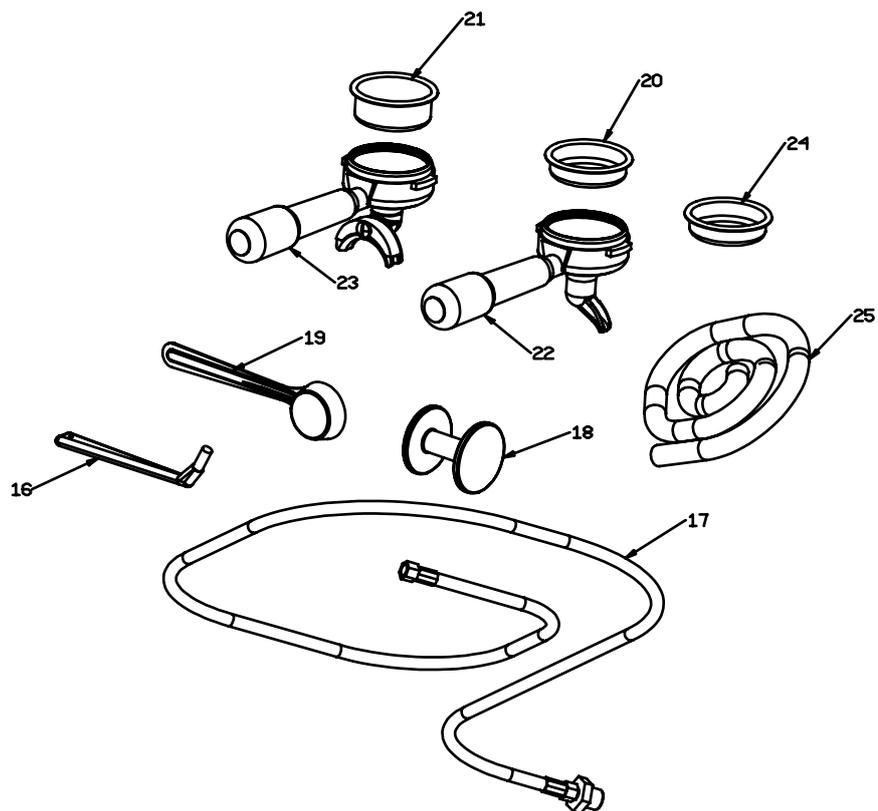


CELLINI EVOLUTION (COV)



CELLINI PREMIUM (CEM)
CELLINI CLASSIC (CCC)





- | | |
|--|--|
| <ul style="list-style-type: none"> 1. ON / OFF switch 2. Water tank 3. Cups warmer 4. Pump pressure gauge 5. Boiler manometer 6. Hot water handle 7. Steam handle 8. Grill tray 9. Hot water jet 10. Steam jet 11. Endowment group 12. Filter holder 13. Drip tray 14. Light ON / OFF indicator and low water in the tank when flashing 15. Lever group endowment | <ul style="list-style-type: none"> 116. Brush for cleaning the brew group 17. Pipe connection to the water network 18. Tamper 19. Coffee measure 20. 1 cup filter 7 gr. 21. 2 cups filter 16 gr. 22. One cup filter holder 23. Two cup filter holder 24. Closed filter 25. Silicone hose to drain water 26. Manometer BPPC (Brewing Pressure Profiling Control) |
|--|--|

MODEL	GIOTTO EVOLUTION (GEV)		GIOTTO PREMIUM (GIM)		CELLINI EVOLUTION (COV)		CELLINI PREMIUM (CEM)		CELLINI CLASSIC (CCC)	
Voltage	120V	230-240V	120V	230-240V	120V	230-240V	120V	230-240V	120V	230-240V
Frequency	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz
Power	1520W		1520W		1520W		1520W		1520W	
Capacità serbatoio acqua	2.9 Lt		2.9 Lt		2.9 Lt		2.9 Lt		2.9 Lt	
Capacità caldaia	1,8 Lt		1,8 Lt		1,8 Lt		1,8 Lt		1,8 Lt	
Dimensions (LxWxD) mm.	330x410x425		330x395x425		300x410x430		300x395x430		300x395x430	
Weight (Kg.)	28		23		28		23		23	



5 – FIRST USE OR REUSE

Follow carefully the instructions before using the machine.

- open the external packing and take the machine out. Inspect the machine to ascertain that it is intact and in good condition. Check for the presence of all the accessories supplied with the machine (see paragraph 4)
- position the machine on a flat surface
- remove the cover and take out the water tank (2) (located inside the machine) and rinse it
- fill the container with clean water, return it to its housing and insert the silicon tubes. Close the cover on the machine.

The machines Giotto Evolution version (GEV) and Cellini Evolution (COV) offer the versatility of use with water tank (2) or with connection to the water supply, using the appropriate pipe supplied (17). (SEE PAR. 5.1)

To use the machine with water tank (2) the switch (Z) has to be in position I (operation to be performed with the machine off).

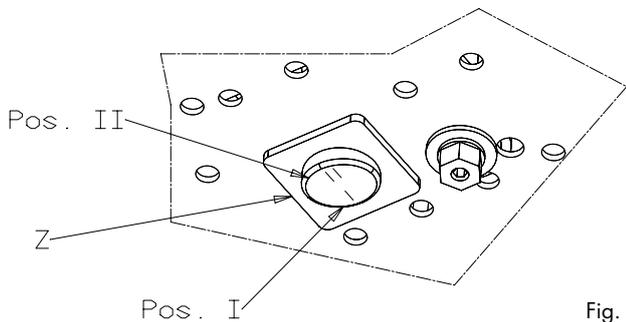


Fig. 1

WARNING! Before making the electric connection, make sure that the main power voltage corresponds to the specifications indicated on the data plate placed under the base of the machine.

Press the main power switch (1). Wait about 2 seconds to allow the circuit to perform a control check. The pilot light (14) will be switched on. To use the machine connected to the water network, position the switch (Z) on II (operation to be performed with the machine off).

Removing the cap (W) from the tray and connecting the silicon tube (25) to the pan (Y) you can download directly into the water drainage pipe. (see FIG.2)

The automatic level indicator will start filling the boiler with water until it automatically reaches the prescribed level; the boiler water level is automatically checked and the prescribed level will be automatically refilled.

Then wait until the machine reaches the 1.1 – 1.3 bar operating pressure, by checking the boiler pressure on the pressure gauge (5).

The machine with a basin built-in is provided with a safety device controlling the amount of water contained in the basin itself; The green light (14) flashes to indicate the lack of water in the tank (2) and the device automatically cuts off all machine functions.

As it is filled up, the warning light switches off and the machine is ready again to deliver coffee.

Fill the filter holder (12) with the brewing group (11)

Thanks to the working of the lever group (15), brew some water to avoid the correct refilling of the coffee exchanger.

WARNING ! The coffee brewing and the power supply of the heating element don't work when the water tank lamp (14) flashes.

During start-up: when the boiler pressure gauge (5) shows a pressure of approximately 0.5 bar, open slowly the steam tap handle (7), to discharge the air contained in the boiler, and wait until steam starts flowing out of the steam supply nozzle (10), then close it.

Wait for the reaching of the pressure and the correct thermic balan-

ce, after 10 minutes.

5.1 - WATER SYSTEM

Caution! The machine must be supplied with water having a hardness above 8°F degrees.

It is advisable to install a water softener for the machine water system. Ensure that you will be connecting the machine to drinkable water mains.

The connection to the water supply of the machine must be in accordance with the country of destination.

The pressure of water entering the machine must not exceed 0,65Mpa

- Connect the hose (17) to the connector (X) located under the machine and then connect it to the water mains.

- As far as the mains pressure is concerned, if this exceeds 0,5Mpa (5bar), it is advisable to install a balanced pressure reducer for high pressure (a device whereby any mains increase does not affect the output pressure).

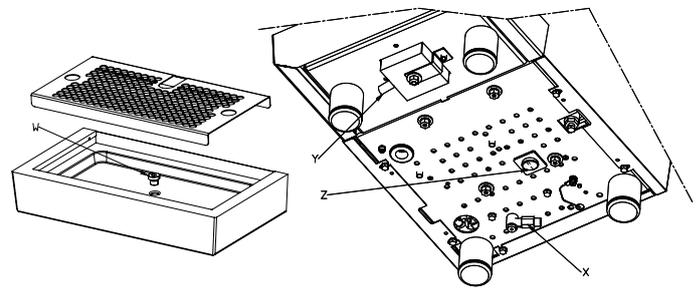


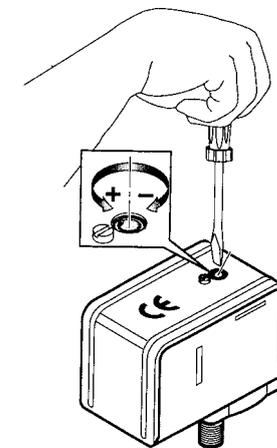
Fig. 2

5.2 PRESSURE SWITCH REGULATION (Only Evolution and Premium Models)

The pressure switch shown in the picture has to keep the pressure in the boiler constant, by activating or deactivating the electrical heating element.

This pressure switch is adjusted during the final testing of the machine on a 1.1÷1.3 bar value; however, if the specific case requires a different operating pressure, the pressure switch operating range can be changed by operating on the regulation screw (U): by reducing the pressure, you will obtain a temperature reduction, by increasing the pressure, the water temperature also increases.

The regulation sense is shown in the picture and also on the pressure switch itself. The pressure changes approximately 0.1 atm for each complete turn of the screw.



5.3 - PUMP PRESSURE SETTING (Only Evolution model)

Insert in the brewing unit the filter-holder filled with properly ground, dosed and pressed coffee. Activate the lever group endowment (15) and read the pressure on the pump manometer (4).

Note: The correct pressure is 8/9 bar.

If the pressure displayed by the manometer should not prove correct, operate the pump pressure regulation screw (R - Fig.3), by turning it clockwise to increase pump pressure or anticlockwise to reduce pressure.

Once regulation is complete, check the pump setting by delivering one or more coffee servings.

6 - COFFEE PREPARATION

In order to obtain an excellent espresso coffee, it is important to use a top quality blended coffee, properly roasted and ground; grinding is correct when the coffee delivery time is between 15-18 seconds for one serving and between 30-35 seconds for two servings. The coffee should be grinded at the time of use. Once ground, the coffee loses its flavour within a short time; if the grinding is too coarse you will obtain light-coloured and weak coffee, without froth; if the grinding is too fine you will obtain dark and strong coffee, with little froth.

Once you have placed the filter into the filter-holder (12), fill the filter with the amount of coffee required for 1 or 2 cups (7 gr. –

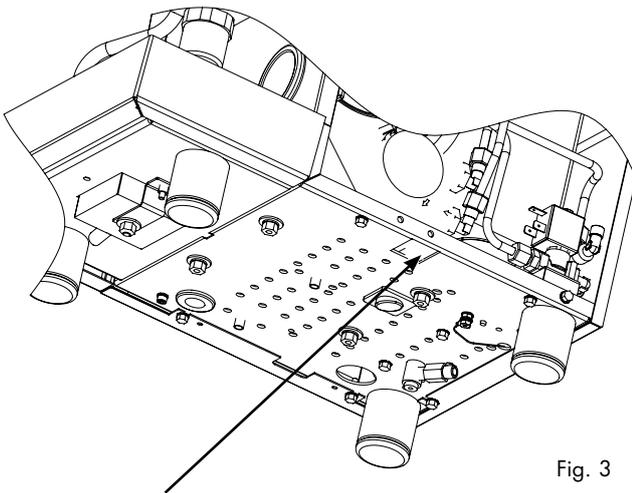


Fig. 3

(R) Pump pressure regulation screw

14 gr.), level it off, and press the coffee down with the presser, manually clean the filter edge from any coffee residues and fit the filter-holder into the brewing unit (11) moving it rightward tightly in its place.

Place the cups under the spouts and start the brewing using the unit control (15).

Warm cups contribute to maintain the right temperature of the coffee delivery; it is therefore advisable, before using it, to place the cups on the cups-holder grid (3), which will make it possible to take advantage of the heat released by the boiler.

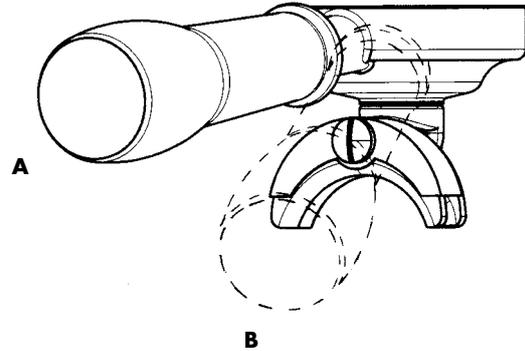
Once you have obtained the desired amount of coffee, stop the delivery using the unit control (15) and leave the filter-holder in its place.

To prepare additional cups of coffee, remove the filter-holder (12) from the unit, moving it leftward, empty the coffee grounds into the drawer provided and once again follow the previous steps.

Caution! We recommend not to touch the brewing units or the steam and hot-water nozzles when the machine is running, and pay attention not to place your hands under the units or nozzles during the delivery, to avoid possible scalds.

It is advisable to leave the filter-holders, with their own filters and coffee grounds, fitted into the unit throughout your days' work, so that the filter-holder will always preserve an optimal temperature.

Caution! When the machine is new, the filter-holder may not be aligned (perpendicular to the machine itself) as shown in the picture; this however does not affect the proper use of the machine itself. After a short period of use the filter-holder will be gradually settled on the correct position.



A = Position of the closed filter-holder when the machine is new.
B = Position of the closed filter-holder after the machine has been in use for a brief period.

7 - CONTROL GROUPS

Machine equipped with semiautomatic, continuous delivery working with a micro switch.

Coffee delivery is obtained moving the small lever of the group (15) placed on the control instrument board; bringing the small lever downwards. The micro switch connected to it will start up the pump for the delivery of water under pressure to the group. The group through some inner devices, allows, before the pre-infusion and after the infusion of the coffee in several ways. Once the desired amount of coffee has been obtained, bring the small lever (15) upwards, stop position, to stop delivery.

7.1 BREWING PRESSURE PROFILING CONTROL

The models are equipped with the system BPPC (Brewing Pressure Profiling Control).

The pressure gauge set on the group, allows to read the brewing pressure profiling of the espresso.

Thanks to this instruction the barman can verify the exact milling, pressing and dose of the coffee in the filter.

If the brewing pressure is lower than the pump calibration (9 bar is our company setting), it means that the milling is big, or the coffee is not pressed correctly, or the dose is not enough.



8 - HOT WATER DELIVERY

Place a container under the hot water nozzle (9), turn the hot water tap knob (6) counter-clockwise.

Hot water at about 95°C will come out of the bottom part the steam nozzle (9).

Close the hot water tap (6) when you have enough hot water by turning the knob clockwise.

9 - PREPARATION OF OTHER DRINKS (MILK, CAPPUCCINO AND OTHER HOT DRINKS)

Warning ! Burns danger ! Some sprinkling of hot water can arrive at the beginning of the supply.

The endowment tube can reach high temperature: avoid to touch it directly with the hands.

Before heating any drink, let a small amount of steam out of the steam tube (10) carefully. Turn the steam tap knob (7) anticlockwise, to eliminate any condensation that may have formed inside the boiler. Pour the liquid to be prepared into a container, immerse the steam delivery nozzle (10) into it and slowly turn the steam tap knob (7) anticlockwise; subsequently open the tap completely, so as to produce a great outflow of steam and bring the liquid to the boiling state. To obtain a thick milk froth for cappuccino, we recommend to use a high and narrow container, only half-filled with milk. Immerse the steam delivery nozzle (10) until you touch the bottom of the container and then bring the milk almost to the boiling state. Move the container up and down alternatively with the tap open, until you touch the surface of the milk for a few seconds, until the froth has formed. To make a cappuccino, add the hot whipped milk to the hot coffee in the cappuccino cup.

Note: Do not produce steam for more than 60 seconds.

10 - MAINTENANCE AND CLEANING OPERATIONS

10.1 - STEAM DELIVERY NOZZLE CLEANING

To avoid altering the taste of the drinks to be heated and to prevent the holes of the end part of the steam delivery nozzle getting clogged, clean carefully the nozzle after each use.

10.2 - BREWING UNIT AND JET CLEANING

Remove the filter-holder from the brewing unit. Clean the brew unit (11) with the brush (16) supplied. Remove the filter (20-21) from the filter holder (22-23); place the closed filter (24) inside the filter holder (22-23), pour a spoonful of coffee-machine detergent powder and fit the filter holder into the brewing unit to be cleaned. Start the brewing unit using the unit control (15) and interrupt the delivery after approximately 4-5 seconds.

Start and interrupt the delivery alternatively for approximately one minute, to allow the removal of coffee and scale deposits. Remove the closed filter (24) and start the delivery system several times to rinse the unit.

Deliver a few serving of coffees so as to eliminate any unpleasant taste from the jets and from the brewing unit.

After a long period of hot water stagnation within the pipes, let the water flow vertically so as to remove any deposit.

10.3 - FILTER AND FILTER-HOLDER CLEANING

Check frequently the filter holes to remove any coffee deposits. Prepare about a litre of boiling water with four teaspoons of coffee-machine detergent in a suitable container, and immerse the filter baskets and filter-holders in this solution for 20-30 minutes; then rinse thoroughly under running water.

10.4 - DRAIN TRAY CLEANING

Remove the drain tray grid (8) and pull out the lower drain tray (13) in order to clean it from coffee powder residues.

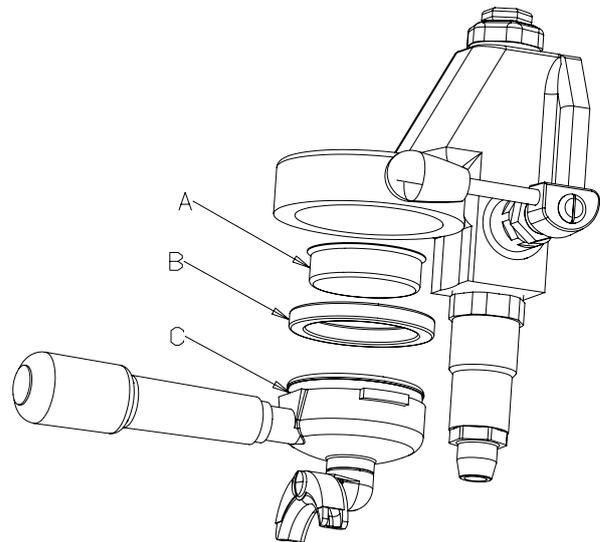
10.5 - CASING CLEANING

Use a damp, non abrasive cloth, without alcohol or solvents, to avoid damaging the sides, the base and any painted parts.

11 - REPLACING THE GROUP GASKET

If, during delivery, the coffee drips out of the edges of the filterholder (C), this may be caused by the obstruction of the filter-holder delivery hole, in which case the hole needs to be cleaned; if the problem persists or, if when fitting the filter-holder into the brewing unit it significantly moves beyond the unit centre, the group gasket needs replacing (B).

For the replacement, it is necessary to lever with a screwdriver for the removal of the seal (B) and the shower (A). After removing the seal and hand shower, properly clean the seat before reassembling the new parts.





12 - TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
The machine does not work and the ON light does not turn on	<ol style="list-style-type: none"> 1. No electricity 2. The main cable is not properly plugged in 3. The main cables damaged 	<ol style="list-style-type: none"> 1. Restore electrical power 2. Plug the main cable in correctly 3. Contact the nearest SERVICE CENTER for a replacement cable
The ON light is on but the water does not heat	<ol style="list-style-type: none"> 1. Thermostat malfunction, or the manual reset thermostat is active 2. Heating element malfunction 	<ol style="list-style-type: none"> 1. Contact the nearest SERVICE CENTER 2. Contact the nearest SERVICE CENTER
No coffee produced during the coffee cycle	<ol style="list-style-type: none"> 1. Too little water in tank 2. Coffee too finely ground 3. Too much coffee in the filter 4. Coffee too firmly pressed 5. The lines are not primed 6. Shower plate obstructed 	<ol style="list-style-type: none"> 1. Fill tank 2. Use a coarser grind 3. Put less coffee in the filter 4. Press the coffee more gently 5. See section 5 – Starting the machine 6. Clean or replace shower plate
Loud pump operation	<ol style="list-style-type: none"> 1. Too little water in tank 2. Pump not primed 	<ol style="list-style-type: none"> 1. Fill tank 2. See section 5 – Starting the machine
Coffee produced too quickly	<ol style="list-style-type: none"> 1. Coffee too coarsely ground 2. Too little coffee in the filter 3. Coffee not pressed enough 4. Coffee old or unsuitable 	<ol style="list-style-type: none"> 1. Use a finer grind 2. Put more coffee in the filter 3. Press coffee more firmly 4. Use different coffee
Coffee is produced in drips	<ol style="list-style-type: none"> 1. Coffee too finely ground 2. Too much coffee in the filter 3. Coffee too firmly pressed 	<ol style="list-style-type: none"> 1. Use a coarser grind 2. Put less coffee in the filter 3. Press the coffee more gently
Coffee leaks between the coffee group and the filter-holder	<ol style="list-style-type: none"> 1. Filter-holder not properly inserted 2. Too much coffee in the filter 3. Edge of the filter-holder not clean 4. The douche seal is worn or damaged 	<ol style="list-style-type: none"> 1. Insert the filter-holder correctly 2. Put less coffee in the filter 3. Clean the edge of the filter-holder 4. Contact the nearest SERVICE CENTER
Coffee is produced without froth	<ol style="list-style-type: none"> 1. Coffee not suitable for machine 2. Improper grind 3. Too little coffee in filter 	<ol style="list-style-type: none"> 1. Use different coffee 2. Adjust coffee grind 3. Put more coffee in the filter
Coffee too cold	<ol style="list-style-type: none"> 1. The machine had not reached the proper temperature 2. Filter-holder not preheated 3. Cups not preheated 4. Pressure switch malfunction. 	<ol style="list-style-type: none"> 1. See section 5.1 – 5.2 2. Filter-holder must be heated together with the water – see section 5.1 – 5.2 3. Properly heat the cups 4. Contact the nearest SERVICE CENTER
Coffee is too hot	<ol style="list-style-type: none"> 1. Pressure switch malfunction 	<ol style="list-style-type: none"> 1. Contact the nearest SERVICE CENTER
The machine does not produce steam	<ol style="list-style-type: none"> 1. The lines are not primed 2. Obstructed outlet hole at end of steam pipe 3. Too little water in tank 	<ol style="list-style-type: none"> 1. See section 5 2. Clean the outlet hole with a needle 3. See section 5