HAND MADE IN MILANO ITALY.

ПРОФЕССИОНАЛЬНЫЕ КОФЕМАШИНЫ CREMONA

Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

Киргизия (996)312-96-26-47 Казахстан (7273)495-231 Таджикистан (992)427-82-92-69

Единый адрес для всех регионов: pvz@nt-rt.ru || https://lapavoni.nt-rt.ru/

TABLE OF CONTENTS

1 – EMPLOYMENT AND STORAGE OF THE INSTALLER/ USER GUIDE

This guide is designed for the user of the machine, for the owner and for the engineer in charge of installation, and must always be available for consultation.

The installer/user guide is aimed at illustrating machine employment as provided for by the design assumptions, as well as the machine technical specifications, and at providing indications for proper use, cleaning and regulation; furthermore, it provides important indications in connection with maintenance, any residual risks and any operations that need to be carried out with special attention.

This manual should be regarded as part of the machine itself, and has to be STORED FOR FUTURE REFERENCE up to final demolition of the equipment.

In the event of loss or damage, the user may request a replacement guide from the builder or the reseller, by indicating the machine model and serial numbers shown on the identification plate.

This manual reflects the state of technology at the time it was compiled; the builder reserves the right to update products as well as subsequent guides with no obligation to also update its previous versions.

LA PAVONI S.p.A. declines all responsibility for any damage to people or things that may directly or indirectly result from:

- failure to comply with all the prescriptions of the safety regulations in force;
- incorrect installation;
- supply faults;
- illegitimate or incorrect use of the coffee machine;
- use that does not comply with the indications explicitly provided in this publication;
- serious shortcomings in terms of prescribed or advised maintenance;
- any unauthorised modification or intervention on the machine;
- use of non-original spare parts or of spare parts that are not specifically designed for the model concerned;
- total or partial failure to comply with instructions;
- exceptional events.

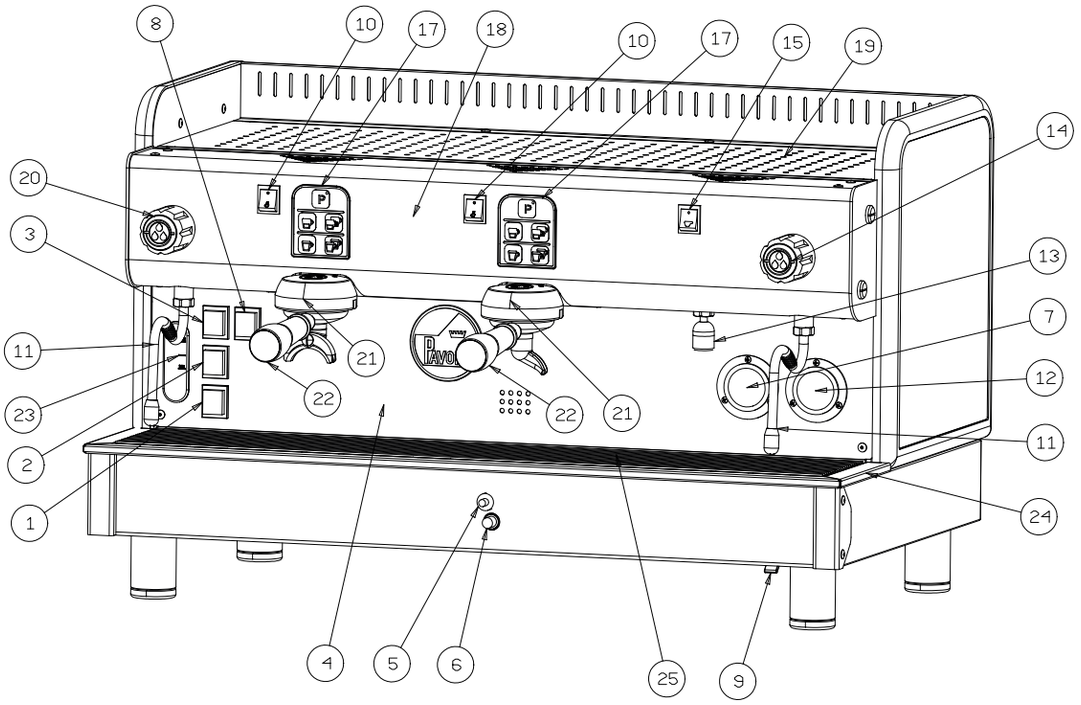
2 – MACHINE FUNCTION

This machine is designed for the professional preparation of Espresso coffee by means of a blend of coffee, for the withdrawal and delivery of water and/or steam, or of hot milk.
Its components are manufactured in non-toxic and durable materials, and are easily accessible for cleaning and maintenance purposes.
In order to properly operate the machine, the user in charge is to have read and carefully understood the instructions contained in this booklet.

3 – DISPOSAL

This product complies with EU Directive 2002/96/EC.
The symbol on the product or on its packaging indicates that this product may not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

4 – TECHNICAL DIAGRAM AND SPECIFICATIONS



1. ON / OFF switch
2. Heating element 2/3 power connection
3. Heating element maximum power connection
4. Front panel
5. Gas detection button
6. Piezoelectric igniter
7. Boiler pressure control manometer
8. Cup-warmer luminous switch
9. Manual boiler water filling button
10. Coffee delivery switch continuous
11. Steam nozzle
12. Pump pressure control manometer
13. Hot water supply nozzle / tap
14. Steam tap knob
15. Hot water supply switch
16. Termopid
17. Unit control
18. Control instrument board
19. Cup holder
20. Steam tap knob
21. Brewing unit
22. Filter-holder
23. Water level indicator
24. Drain tray
25. Drain tray grid

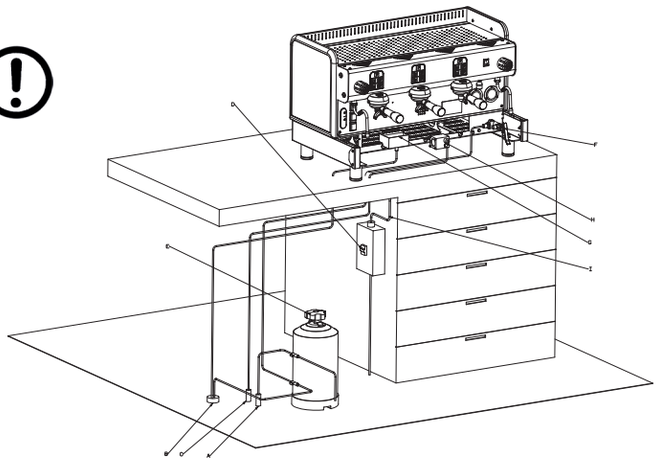
MODELS	**2 GR**	**2 GR**	**3 GR**	**3 GR**
	CREMONA	**CREMONA HC**	**CREMONA**	**CREMONA HC**
Width mm	890	890	1100	1100
Depth mm	526	526	526	526
Height mm	550	605	550	605
Boiler Capacity lt	22,5	22,5	30	30
Weight in kg	80	85	95	100

Rated electric heating		**2 GR**	**3 GR**
CREMONA V CREMONA VHC	220-240V~ 50-60Hz	5650W	
	380-415V 3N~ 50-60Hz	5650W	6555W
CREMONA VPID CREMONA VPIDHC	220-240V~ 50-60HZ	6150W	
	380-415V 3N~ 50-60HZ	6150W	7300W

ECO max electric heating		**2 GR**	**3 GR**
CREMONA V CREMONA VHC	220-240V~ 50-60Hz	3830W	
	380-415V 3N~ 50-60Hz	3830W	4370W
CREMONA VPID CREMONA VPIDHC	220-240V~ 50-60HZ	4330W	
	380-415V 3N~ 50-60HZ	4330W	5100W

Pump Motor		**165 W**	**165 W**
Gas heating		2500 kcal/h	3400 kcal/h

5 – INSTALLATION



A. Water system.
B. Drain conduit.
C. Gas conduit.
D. Protection switch.
E. Softener.
F. Boiler supply tap.
G. Drain basin.
H. Gas valve.
I. Supply cable.

Before starting installation, you need to ensure that:
1. no dents, bumps or buckling exist;
2. no wet areas or other signs exist that may lead to the conclusion that the packaging has been exposed to bad weather conditions;
3. no tampering signs exist.

Once you have ensured that transport has been carried out correctly, proceed with installation.

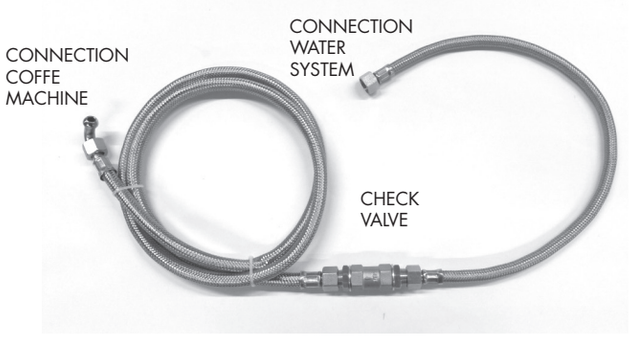
Check that the machine is installed on a flat surface to a minimum height of 90 cm fitted to support the weight, leaving a clear area of at least 30 cm around the coffee machine.
Hence proceed with installation operations, in compliance with the following steps.

5.1 – WATER SYSTEM

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

Caution! It is not possible to use pipes and gaskets already used.

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 softener (**E**) to the water system (**A**).



N.B. *Before connecting the softener to the machine, carry out a washing cycle until the water is absolutely clear, after which you may connect the softener to the machine.*

- Connect the drain tray (**G**) to the drain conduit (**B**).
- 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).

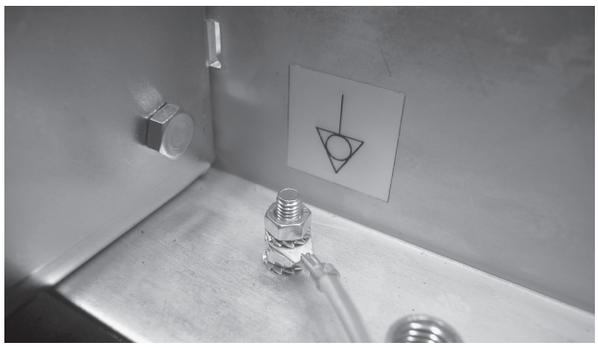
5.2 – ELECTRIC CONNECTION

Caution! Before proceeding with electric connection, you need to ensure that voltage meets the specifications shown in the EC plate.

Ensure that the electric supply line can bear the machine load (see chapter 4 - Technical Specifications Table).
Provide for an earth connection in compliance with the regulations in force.
In this regard, ensure that the supply cable is efficient, and that it meets the national and European safety standards.
The user is to arrange for machine power supply and protect the line by means of a safety switch (cut-out box) meeting the regulations in force in the country in question.
Connect the supply cable (**I**) to the electric line by a multipolar switch (**D**) will have to be arranged for network separation, with a distance between contacts of at least 3 mm.
For voltage change, please refer to the diagram shown on the main switch box.

The yellow/green coloured cable should be COMPULSORILY connected to the premises earthing system.

The machine is equipped with a terminal block under the drain pan supported by the following symbol ⏚.
The terminal block is capable of connecting power cables from 2,5mm to 6mm, with ring terminals for screw M6.

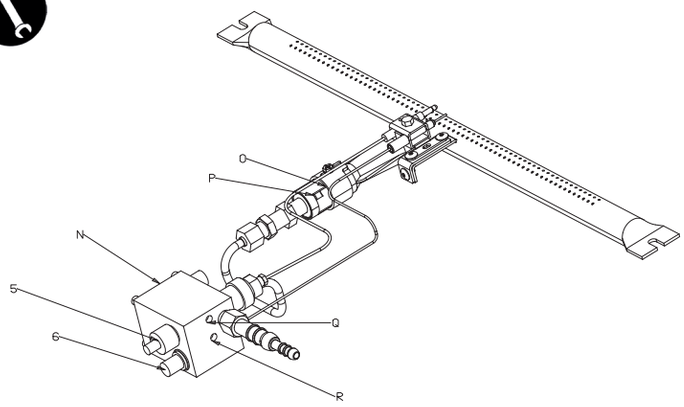


IMPORTANT
The single phase connection of espresso coffee machine in granted only in a place having an electric system with an impedance conformed to the assorbed current of the appliance.

5.3 – GAS CONNECTION

Connect the gas valve (**H**) to the conduit (**C**) by means of the hose (in compliance with the standards in force) and adequate hose clamps, or, in the event you are using a stainless steel hose, use the specially designed connection supplied (as shown in the picture under chapter 5.4 "Gas Regulation").

5.4 – GAS REGULATION



5. Gas detection valve.
6. Piezoelectric ignition.
N. Gas regulation.
O. Gas injector.
P. Regulation nut.
Q. Minimum regulation screw.
R. Pressure regulation screw.

Category III 1a 2H3+	Machine 2 GR	Machine 3 GR	Machine 4 GR
G20 (methane)	B	C	D
G30 (liquefied gas)	03	04	05
G110 (town gas)	1	2	3

The machine is designed to be supplied by methane gas (G20), which means that the gas injector (**O**) and the gas regulator (**N**) are set for methane gas.
For GPL gas (G30 liquefied gas) or town gas operation, the gas injector (**O**) needs to be replaced with the corresponding one attached to the machine (see gas injector table).
Gas burner ignition must be carried out by holding the gas detection valve button pressed (**5**), to allow inflow of gas into the burner, and by then operating the piezoelectric ignition button (**6**).

N.B. *The detection valve button must remain pressed for a few seconds in order for the thermocouple to start.*

Adjust the airflow by means of the specially provided air regulation nut (P); by turning it clockwise the flow decreases, by turning it anticlockwise the flow increases, so as to achieve a blue-coloured flame (avoid high or too oxidising flames, which may damage the boiler).

Wait for the boiler to reach a 1.1 ÷ 1.3 bar operating pressure and for the flame to be reduced to a minimum.

Should you need to set the gas regulator (**N**), proceed as follows: turn the minimum regulation screw (**Q**) clockwise to lower the flame and turn it anticlockwise to increase the flame.

When water temperature drops below the minimum set values with the machine running, the flame automatically switches back to the maximum value.
To increase or decrease maximum boiler pressure, operate the pressure regulation screw (**R**) clockwise to decrease the pressure and anticlockwise to increase it.

The machine is provided with a gas supply tap complying with the safety standards that, in the event of accidental flame extinction, resulting from whatever reason, produces the automatic interruption of gas outflow. In this case, you need to repeat the ignition operation as described above.

The machine may provide both for electrical and gas heating, or else it can be independently heated either electrically or by gas.
When the machine is exclusively gas operated, act on the switches (**2-3**) to stop the heating element.

6 – STARTING UP

Once the hydraulic, electrical and gas connections have been completed, the machine can be started up.
Open the water system tap (**A**).
Close the protection switch (**D**).
Press the switch (**1**) the indicator light will turn on: the machine is working.
The automatic level indicator will start filling the boiler with water until it automatically reaches an intermediate position between the MIN and the MAX level of the level indicator (**23**).
Once the automatic water filling operation has been completed, to work at normal power act on switch (**2**); to work at maximum power act on both switches (**2-3**).
Then wait for the machine to reach the 1.1 ÷ 1.3 bar operating pressure, by checking the boiler pressure on the manometer (**7**).
Should the machine not settle on the indicated values, you will need to set the pressure switch as explained in section 6.1.

When the machine is provided with a gas heating system, after operating the switch (**1**), you will need to switch on the gas, by operating the gas valve (**5**) and pressing the piezoelectric igniter (**6**) until the gas remains on.
Now check the pressure on the pump manometer (**12**), by starting a unit with inserted filter-holder, filled with properly ground, dosed and pressed coffee, so as to obtain the actual 8/9 bar operating pressure.
Should you need to reset the pump pressure, you will need to follow the directions listed under section 6.2.

The machine is now ready for use.

If the machine is not provided with an automatic level indicator, after pressed the switch (**1**), press the manual boiler water filling button (**9**) to fill the boiler with water, and keep it pressed untill the water level will have reached an intermediate position between the MIN and the MAX level of the level indicator (**23**).
Once the water filling operation has been completed, to work at normal power act on switch (**2**); to work at maximum power act on both switches (**2-3**).
Regularly check the level of the water contained in the boiler, which must not drop below the MIN level of the level indicator (**23**); if necessary, top up to restore the required level by pressing the boiler water filling button (**9**).

Caution! Absence of water in the boiler while the machine is running causes interruption of the resistance, which will have to be restored by an authorised Assistance Centre.

During start up:
When the boiler pressure control manometer (**7**) displays a pressure of approximately 0.5 bar, slowly open the steam tap (**14-20**), by turning it anticlockwise, to discharge the air contained in the boiler, and wait for the steam supply nozzle (**11**) to start producing steam, before you close it again. Wait for the machine to reach the operating pressure and the correct thermal balance, within 35-45 minutes.

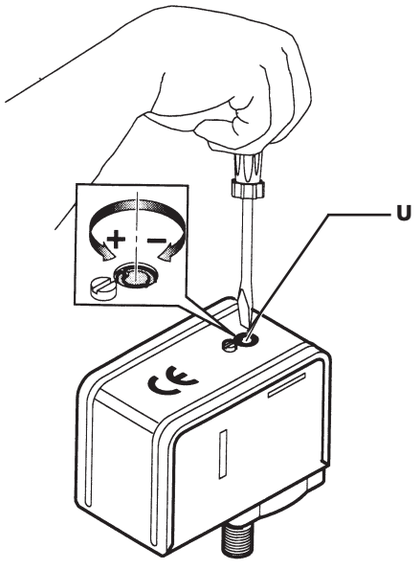
important! Do not press the hot water supply switch or turn the tap before reaching the correct 1.1 bar operating pressure, indicated by the boiler pressure control manometer (12).

6.1 – PRESSURE SWITCH REGULATION

The pressure switch shown in the picture is designed to maintain the boiler pressure constant, by connecting or disconnecting the electric heating element.
This pressure switch is adjusted during the final testing of the machine on a 1.1÷1.3 bar value; however, should the specific case require a different operating pressure, the pressure switch operating range can be changed by operating the regulation screw (**U**)*: by reducing the pressure, you obtain a temperature reduction,*

whereas by increasing the pressure, the water temperature also increases. The regulation sense is shown in the picture and also on the pressure switch itself.
Pressure varies by approximately 0.1 atm for each complete turn of the screw.

Caution! Disconnect power supply before carrying out this operation.

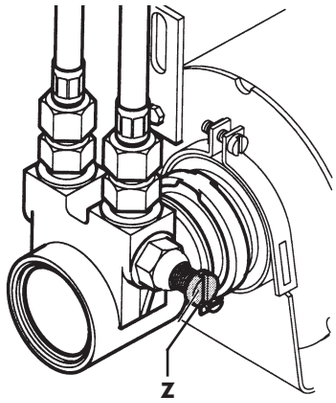


6.2 – PUMP PRESSURE SETTING

Insert in the brewing unit the filter-holder filled with properly ground, dosed and pressed coffee. Activate the switch or the unit control keyboard (**17**) and read the pressure on the pump manometer (**12**).

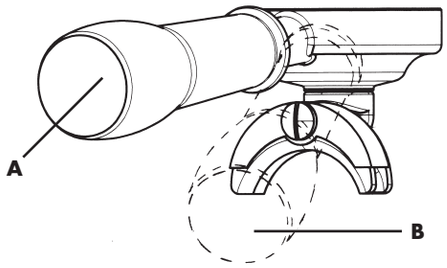
N.B. *The correct pressure is 8/9 bar.*

If the pressure displayed by the manometer should not prove correct, operate the pump pressure regulation screw (**Z**), *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.



Z = Pump pressure regulation screw

Caution! When the machine is new, the filter-holder may not prove aligned (perpendicular to the machine itself) as shown in the picture; this however does not affect proper operation of the machine itself.
After a brief period of use the filter-holder will gradually settle 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 – COFFEE PREPARATION

In order to obtain an excellent Espresso coffee, it is important to use a top quality coffee blend, properly roasted and ground; grinding is correct when the coffee delivery time is of 15-18 seconds for one serving and of 30-35 seconds for two servings. Grinding must take place at time of use, in that, once ground, coffee loses its fragrance within a short time; if grinding is too coarse you will obtain light-coloured and week coffee, without froth; if grinding its too fine you will obtain dark coloured and strong coffee, with little froth.
Warm cups contribute to maintaining freshly delivered coffee at the right temperature; it is therefore advisable to place the cups on the spacious cup-holder grid before use (**19**), which will make it possible to take advantage of the heat emanating from the boiler.

On machines provided with an electric cup-warmer, cups are pre-heated by pressing the button (**8**): the button warning light will switch on to signal that the cup-warmer is on. To switch off the cup-warmer, pressed the button (**8**) again.

Caution! Do not place cloths, felt covers or the like on the cup holder. Once you have placed the filter into the filter-holder (**22**), fill the filter with the amount of coffee required for 1 or 2 cups (7 gr. - 14 gr.), level 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 (**21**) moving it rightward until it is tightly in place.

Place the cups under the spouts and start the brewing by means of the unit control (**17**).

Once you have obtained the desired amount of coffee, stop delivery by means of the unit control (**17**), whilst leaving the filter-holder in place.

To prepare additional cups of coffee, remove the filter-holder (**22**) from the unit, by moving it leftward, empty the coffee grounds into the drawer provided and once again follow the steps listed above.

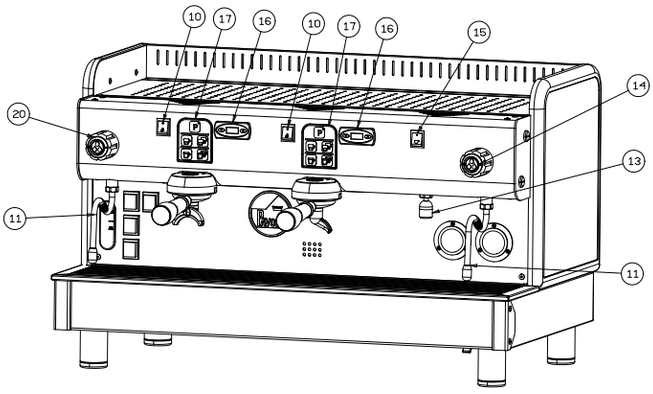
Caution! We recommend that you do not touch the brewing units or the steam and hot-water nozzles when the machine is running, and that you pay the utmost attention not to place your hands under the units or nozzles during delivery, to avoid possible scalds.

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

8 – BREWING UNIT CONTROL

8.1 – CCREMONA - CREMONA HC "V - V PID"

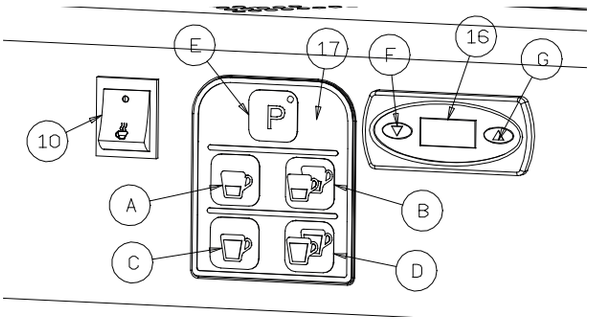
These models are equipped with automatic, continuous delivery brewing units with solenoid valve and programmable coffee dosing, microprocessor-aided sealed digital brewing control, control board with 4 different coffee-dose selection positions, a stop button for each



brewing unit and a timer-aided hot-water delivery system.

9 – COFFEE DOSE PROGRAMMING DIRECTIONS FOR THE CREMONA - CREMONA HC "V - V PID MODELS

17. UNIT CONTROL:
Key function:
A. 1 normal cup of coffee.
B. 2 normal cups of coffee.
C. 1 "large" cup of coffee.
D. 2 "large" cups of coffee.
E. Brewing unit stop/continuous delivery.



The "**P**" (**E**) button is designed for continuous delivery and delivery stop. The machine therefore has a double function:
By pressing the "**P**" (**E**) button, the equipment is run as a semi-automatic machine.
By pressing the 4 selection buttons, the machine is operated through electronic dosing.

By holding the "**P**" (**E**) button pressed for over 10 seconds, the machine will enter the programming phase, as signalled by the low frequency flashing of the LED belonging to the unit on which programming is being carried out.

Release the programming button (the LED will continue to flash) and press the button relating to the unit on which you wish to programme coffee dosing; at this stage delivery will start; once the desired dose has been reached, press any button of the unit concerned to interrupt delivery; the dose will be stored in the memory and the machine will exit the programming phase (the LED will stop flashing and switch off).

1. This operation should be repeated on the remaining selection buttons for the various groups.
2. The same operation needs to be repeated if you wish to increase or decrease the set dose.
3. By programming the first unit to the left, the programming operation will be also accomplished on the various groups.

N.B. *The programming phase is signalled by the flashing LED of the unit on which programming is being carried out.*

10 – HOT WATER DOSE PROGRAMMING DIRECTIONS

By holding the "**P**" (**E**) button pressed for over 10 seconds, the machine will enter the programming phase; release the programming button (the LED will continue to flash) and press the hot-water delivery switch (**15**); hot water delivery from the tap (**13**) will start; once the desired dose has been reached, press the hot water delivery switch to stop water supply. The LED will switch off, the dose will be stored in the memory and the machine will exit the programming stage.

11 – HOW TO SET THE UNIT BREWING COFFEE TEMPERATURE BY MEANS OF THE PID (16)

The PID (**16**) has been set by the producer of this machine on a temperature of 95°C. In order to change the temperature please proceed as follows:
- press the button (**F**) ; as soon as the display shows the writing "PRG" press the button (**G**) ;
- as soon as the display shows the brewing unit temperature, help yourself with the buttons (**F**) and (**G**) in order to set the desired temperature, starting from a min. of 80C° up to a max. of 133C°.- after 3 sec. from pressing the last button, the inserted temperature is memorized and the display shows the set temperature.
NB: if the temperature is set too high, once a coffee request is made, the display starts to flash. The PID (**16**) is already set by the producer on the right temperature for an excellent espresso.
During heating and coffee distribution, the temperature can oscillate (+/- 10/12°C).
Also, a warning has been inserted: after 108°C the PID's display shows the temperature but intermittently; this is normal and it warns the user that the coffee will not be good if made with such high temperature.

12 – COFFEE DELIVERY

To obtain coffee delivery, press the selected button on the brewing unit (**17**); the LED in the "**P**" (**E**) button will switch on, after which coffee delivery will start and will be automatically interrupted once the previously set amount has been reached. Delivery stop will be signalled by the related LED switching off.

Delivery or selection deletion may be interrupted by pressing any key on the brewing unit (**17**).

The "**P**" (**E**) button, besides interrupting supply or aborting selection, is also designed for continuous delivery, which means that the dose is not previously set, but the unit will continue to deliver coffee until the button is pressed again to interrupt delivery from that unit.

If the coffee is too finely ground or too much coffee is placed in the filter, when you press one of the 4 control selectors (**A**, **B**, **C**, **D**) coffee delivery will not start; after 45 seconds the machine will be automatically blocked and the LED will switch from a fixed to a flashing light state.
To restart the machine, remove the filter-holder and replace the coffee contained in the filter, tpress the ON/OFF switch (**1**), in order to turn off the machine and subsequently restart it.

N.B. *We recommend a maximum delivery of 60 seconds.*

N.B. *To avoid the automatic block of the machine, if within 10 seconds coffee delivery has not yet started, press one of the selector buttons to cancel the command, replace the coffee contained in the filter and repeat the delivery operation.*

12.1 – PRE-INFUSION

Important! The settings made on unit 1 (operating on the first keyboard) will be automatically copied on to

all the other units.

Our software permits measure configuration so that the relative delivery of the COFFEE measures through volumetric control is preceded by preinfusion.
Delivery of the coffee measure after time 1 (ON) is suspended for a time 2 (OFF) and is then resumed for the completion of selection.
On pressing one of the volumetric control measure keys, the normal delivery cycle is preceded by a short timed water jet in order to dampen the coffee pellets before actual delivery stage.
This function ensures the optimum use of the coffee pellets.

ENGAGEMENT
Start the machine by pressing the main switch keeping key (**A**) of unit 1 pressed and wait for the led relative to key (**E**) to begin flashing. Turn off the machine and then switch it on.

The pre-infusions has been started up.

DEACTIVATION: Start the machine by pressing the main switch keeping key (C) of unit 1 pressed and wait for the led relative to key (E) to begin flashing. Turn off the machine and then switch it on.
The pre-infusions has been deactivated.

13 – HOT WATER WITHDRAWAL

13.1 – MODELS WITH HOT WATER DELIVERY SWITCH - CREMONA - CREMONA HC

Place a container under the hot water delivery tap (**13**), press the switch (**15**) which will activate a device capable of blending the hot water in the boiler with the cold water coming from the water system in the programmed amount.

N.B. *We recommend a maximum delivery of 60 seconds.*

14 – PREPARATION OF OTHER DRINKS

14.1 – MILK, CAPPUCCINO AND OTHER HOT DRINKS

Before you heat any drink, carefully let a small amount of steam out of the steam tube (**11**), by operating the steam tap knob (**20**) 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 (**11**) into the liquid and slowly turn the steam tap knob (**14-20**) anticlockwise; subsequently open the tap completely, so as to produce a great outflow of steam and bring the liquid to the boil. To obtain a thick milk froth for cappuccino, we recommend you use a high and narrow container, only half-filled with milk.

Immerse the steam delivery nozzle (**11**) until you touch the bottom of the container and then bring the milk almost to the boil.

Alternatively lift and lower the container 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 hot coffee in the specially designed cup.

14.2 – TEA, CAMOMILE

Place a container under the hot water delivery tap (**13**), press the jointed handle (**16**) downwards to allow water delivery; once the desired amount of water has been obtained, the handle will resume the stop position thus interrupting delivery. Now add the tea bag or drink sachet required for preparation.
For hygiene purposes, we recommend that in any case you use water from the water system, heated by means of the steam delivery nozzle (**11**).

14.3 – MACHINES WITH HOT WATER DELIVERY SWITCH

Place a container under the hot water delivery tap (**13**), press the water delivery switch (**15**) and then add the tea bag or drink sachet required for preparation.

15 – MAINTENANCE AND CLEANING OPERATIONS

15.1 – 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 nozzles getting clogged, carefully clean the nozzles after each use.

15.2 – DAILY CLEANING OPERATIONS
Rinse the filters and filter-holders in boiling water to avoid scale formation or coffee deposits, and clean the jets of the delivery units.

16 – WEEKLY CLEANING OPERATIONS

16.1 – BREWING UNIT AND JET CLEANING

Remove the filter-holder from the brewing unit.
Position the provided seal inside the filter, pour a spoonful of coffee-machine detergent powder and fit the filter holder (**22**) into the brewing unit to be cleaned (**21**).
Operate the brewing unit by means of the unit control (**17**) and interrupt delivery after approximately 4-5 seconds.
Alternatively operate and interrupt delivery for approximately one minute, so as to allow removal of coffee and scale deposits.
Remove the seal and operate the delivery system several times to rinse the unit. Deliver a few servings of coffee 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 conduits, let water briefly flow vertically so as to remove any deposits.

16.2 – FILTER AND FILTER-HOLDER CLEANING

Frequently check 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 in this solution the filters and filter-holders for 20-30 minutes; then rinse thoroughly under running water.

16.3 – DRAIN TRAY CLEANING

Remove the drain try grid (**25**) and pull out the drain tray (**24**) in order to clean it from coffee powder residues.

16.4 – CASING CLEANING

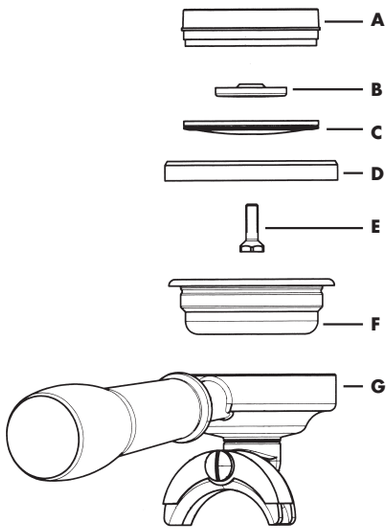
Use a damp, non abrasive cloth, without alcohol or solvents, to avoid damaging the sides, the base and any painted parts.

Important! The machine can not be immerse in water and can not be cleaned with jets' water.

17 – REPLACING THE GROUP GASKET

If, during delivery, the coffee drips out of the edges of the filter-holder (**G**), 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 (**D**).

17.1 – CREMONA - CREMONA HC



A. Round metal block.
B. Sprayer.
C. Jet.
D. Gasket.
E. Jet fixing screw.
F. Filter.
G. Filter-holder.

In order to replace it, unscrew the jet fastening screw (**E**), remove the jet (**C**) and the sprayer (**B**), and then use a screwdriver as a lever to remove the round metal block (**A**) and subsequently the gasket (**D**). After having removed the gasket, thoroughly clean the seat before placing the new gasket, after which reinstall the component by following the above listed steps in reverse order.

18 – BOILER WATER REPLACEMENT

It is essential to replace the water contained in the boiler every 15-20 days, in order to eliminate the iron bacteria and the build-up of various residues due to water stagnation.

Turn off the main switch (**1**), remove the drain basin grid (**25**) and pull out the lower drain basin (**24**).

Open the drain tap placed under the level glass (with the boiler under pressure) and let the water flow out of the boiler completely. Close the tap again and repeat the start-up procedures by following the steps outlined in the related section of this manual.

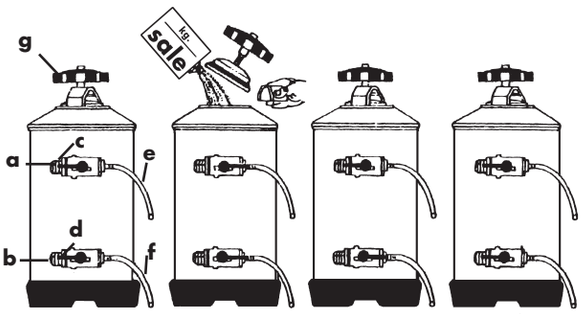
19 – USE OF THE SOFTENER

Calcium and magnesium contained in the water circulating inside the boiler and brewing unit circuits damage the machine. The softener dissolves the calcium and magnesium, which settle on the resins therein contained.
To prevent the build-up of deposits from saturating the resins, thus limiting their functions, these need to be regenerated at regular intervals according to the following criteria:

- 8 litre softener for 40 French degree HARDness water
  - up to 400 cups of coffee/day, every 10 days
  - up to 800 cups of coffee/day, every 5 days
  - up to 1000 cups of coffee/day, every 3 days
- 12 litre softener, for 40 French degree HARDness water
  - up to 500 cups of coffee/day, every 15 days
  - up to 1000 cups of coffee/day, every 7 days
  - up to 1500 cups of coffee/day, every 5 days
  - up to 2000 cups of coffee/day, every 3 days.

Failure to comply with the above regeneration timings will prejudice the thermal and mechanical functions of the machine and the taste of the coffee, owing to the formation of scale.

For regeneration, proceed as follows:
Place an empty container, having a capacity of at least two litres, under pipe (**e**), turn the (**c**) and (**d**) handles to the right, unscrew the (**g**) lid and wait for the water to fully flow out of pipe (**e**), Introduce 1.5 Kg. of cooking salt for the 8 litre model or 2 Kg. of salt for the 12 litre model, place the lid back in place and move the (**c**) handle from right to left; let the salted water flow out of the (**f**) pipe and wait until the water has become fresh again (the cycle takes approximately 90 minutes).



a - Water inlet.
b - Water outlet.
c - Inlet tap.
d - Outlet tap.
e - Vacuum pipe.
f - Regeneration pipe.
g - Lid knob.

Now move the (**d**) handle from right to left.
During regeneration, do not use the machine; for machines equipped with automatic level indicator it is advisable to cut off the pump power supply, to prevent no-load operation.
Before connecting the softener to the machine, wash the resins, by establishing a connection to the water mains and letting water run for five minutes.

N.B. *The above mentioned directions relate to the softener shown in the pictures; if your equipment differs, follows the directions attached to softener in question.*

20 – MACHINE DEMOLITION

Should you decide to no longer employ the machine, owing to wear or to other reasons, we recommend that, once you have removed the plug from the socket, you deactivate it by cutting off the supply cable. As regards the demolition procedure, we recommend you separate the various parts of the machine, depending on their nature (pla-stic, metal, etc.). Hence employ specialised firms for the disposal of the various parts.

21 – CAUSES FOR OPERATING FAILURES OR ANOMALIES (TROUBLESHOOTING)

PROBLEM	CAUSE	SOLUTION
The machine does not switch on	*1. Mains switched off* *2. Defective connection to electric mains*	*1. Place the main switch on the ON position* *2. Refer to qualified staff for connection evaluation*
Water missing the boiler	*1. Network tap closed* *2. Pump filter clogged* *3. Motor pump not working*	*1. Open the network tap* *2. Replace filter* *3. Refer to qualified staff*
Coffee not being supplied	*1. Network tap closed* *2. Motor pump not working* *3. Control unit fuse burnt out* *4. Unit solenoid valve not working* *5. Unit control not working*	*1. Open the network tap* *2. Refer to qualified staff* *3. Refer to qualified staff* *4. Refer to qualified staff* *5. Refer to qualified staff*
The nozzles do not supply steam	*1. Too much water in the boiler* *2. Damaged heating element* *3. Clogged sprayer* *4. Heating element protecting thermostat disconnected*	*1. Refer to specific issue* *2. Refer to qualified staff* *3. Clean the sprayer* *4. Refer to qualified staff*
Too much water in the boiler	*1. The pump motor remains connected* *2. Perforated exchanger* *3. Automatic filling solenoid valve blocked*	*1. Refer to qualified staff* *2. Refer to qualified staff* *3. Refer to qualified staff*
Water leakage on the counter	*1. Drain tray dirty* *2. Drain tube clogged or disconnected* *3. Other leakage*	*1. Clean drain tray* *2. Replace drain tube* *3. Refer to qualified staff*
Wet coffee grounds	*1. Too fine grinding regulation* *2. The unit has not warmed up yet* *3. Not unloaded solenoid valve*	*1. Regulate grinding* *2. Wait for the machine to reach the required temperature level* *3. Refer to qualified staff*
Boffee supply is too slow	*1. Too fine grinding regulation* *2. Dirty filter-holder* *3. Clogged unit* *4. Partially clogged solenoid valve*	*1. Regulate grinding* *2. Replace the filter and clean the filter-holder more often* *3. Refer to qualified staff* *4. Refer to qualified staff*
The coffee supply is too fast	*1. Too coarse grinding regulation*	*1. Regulate grinding*
The coffee supplied is cold	*1. Limestone on the exchangers or on the heating element* *2. Oxidised pressure switch contacts* *3. Defective electric connection* *4. Heating element partially burnt out* *5. Heating element protecting thermostat disconnected*	*1. Refer to qualified staff* *2. Refer to qualified staff* *3. Refer to qualified staff* *4. Replace heating elemen* *5. Refer to qualified staff*
The coffee supplied is too hot	*1. Pressure switch incorrectly set*	*1. Regulate pressure switch by means of the screw provided (cap. 6.1)*

По вопросам продажи и поддержки обращайтесь:

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