

CARAT

USER MANUAL



UM_EN

Part No.: I764015_02

EXPOBAR®

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Some important information may appear in textboxes seen below

 IMPORTANT! INFO.	 CAUTION! INFO.	More INFO.	<div>Note</div> <div>INFO.</div>
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Introduction

Thank you for choosing a Carat espresso machine.
We hope you enjoy it !

- Read the user guide before using the machine.
- This guide contains important instructions for proper and safe use of the vending machine.
- Always keep this guide close at hand for future reference.

Warnings

- Never immerse the machine, plug or mains cable in water because there is a danger of electric shock.
- The appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure they do not play with the appliance.
- Do not use the machine if the mains cable, plug is damaged or the machine has fallen down.
- If the mains cable is damaged it must be replaced by the manufacturer, service agent or similarly qualified persons in order to avoid a hazard.
- Only plug the machine into a properly installed earthed safety socket whose line voltage matches the technical data for the machine.

Precautions

- Do not use the machine outdoors so it can be exposed to weather (rain, snow, frost). It will cause material damage to the machine.
- Do not try to open the machine or repair it in any way. To avoid danger only have the machine repaired in a technical workshop, Service Centre or by a qualified person.
- Remove the mains cable from the socket when the machine is not in use for longer periods. To do this, pull the plug not the cable.
- This appliance must be placed in a horizontal position which is resistant to any water that may leak.
- Place the machine out of the reach of children.
- Position the mains cable so that people cannot trip over it. Keep it away from sharp edges and heat sources.
- The new hose-sets supplied with this appliance are to be used, old hose-sets must not be re-used.
- This appliance is not suitable for installation in an area where a pressure washer may be used.
- This appliance must not be cleaned with a pressure washer.

Intended use



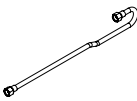



- This appliance is intended to be used in household and similar applications such as:
 - Staff kitchen areas in shops.
 - Offices and other commercial working environments.
 - On agricultural estates.
 - By clients in hotels, motels and other residential type environments.
 - Bed and breakfast type environments.
- For the optimal performance of the machine these parameters shall not be exceeded:
 - Maximum permissible inlet water pressure : 800KPa (8Bar)
 - Minimum permissible inlet water pressure: 200KPa (2Bar)
 - Maximum working temperature: 40 °C
 - Minimum working temperature: 10 °C

Facts & weight

Carat I group

FACTS	CARAT MINI I GROUP		
	Standard	Standard (Turbo Steamer)	Touch Button (Turbo Steamer)
Steam wand	2pcs	1pc	1pc
Hot water outlet	1pc	1pc	1pc
Turbo steamer	None	1pc	1pc
Electronic temperature control	Yes		
Stand by mode	Yes		
Height, width, depth	620, 586, 563mm		
Boiler volume	6L		
Power supply	230V AC 50/60Hz 1F+N 2750W		
Cold water connection	3/8" Internal thread		

MODEL/NAME	WEIGHT
Carat I GR standard	45kg
Carat I GR turbo steamer	45kg
Carat I GR turbo steamer with touch buttons	45kg



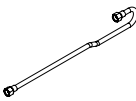



INCLUDED ACCESSORIES					
14g Porta-filter with 2 outlets	7g Porta-filter with 1 outlets	Water hose	Filter basket		Blind gasket
					
1pc	1pc	1pc	7g x 1pc	14g x 1pc	1pc

Facts & weight

Carat 2 groups

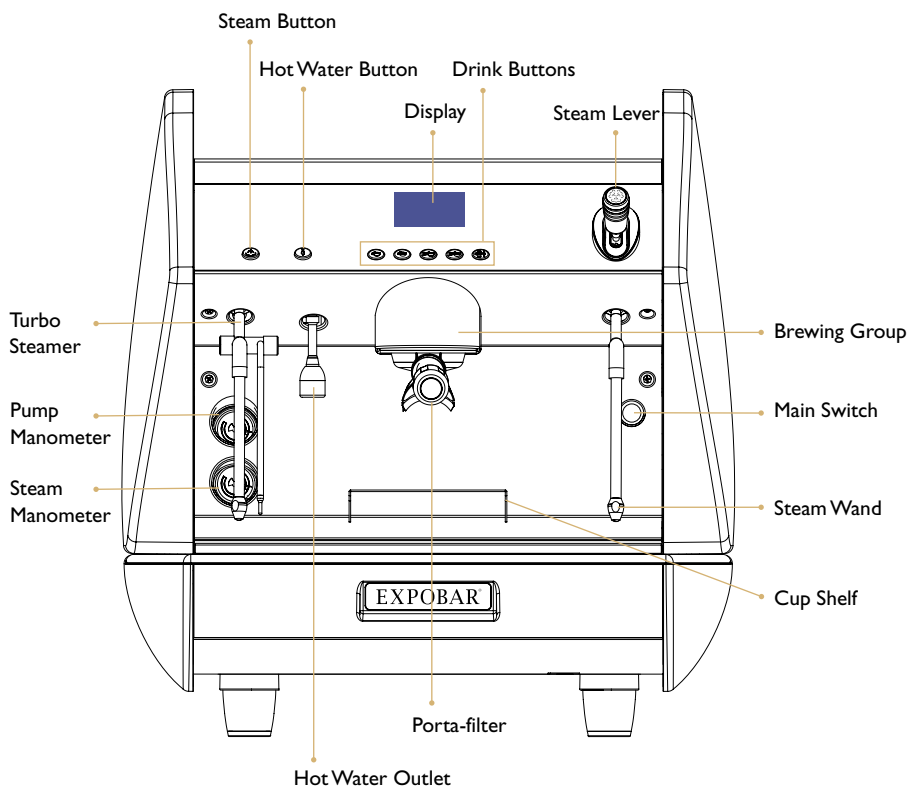
FACTS	CARAT 2 GROUPS		
	Standard	Standard (Turbo Steamer)	Touch Button (Turbo Steamer)
Steam wand	2pcs	1pc	1pc
Hot water outlet	1pc	1pc	1pc
Turbo steamer	None	1pc	1pc
Electronic temperature control	Yes		
Stand by mode	Yes		
Height, width, depth	620, 774, 563mm		
Boiler volume	11.5L		
Power supply	Single phase 230V AC 50/60Hz 1F+N 3250W Multi phase 380V AC 50/60Hz 3F+N 4750W		
Cold water connection	3/8" Internal thread		

MODEL/NAME	WEIGHT
Carat 2GR standard	63kg
Carat 2GR turbo steamer	63kg
Carat 2GR turbo steamer with touch buttons	63kg

INCLUDED ACCESSORIES					
14g Porta-filter with 2 outlets	7g Porta-filter with 1 outlets	Water hose	Filter basket		Blind gasket
					
1pc	1pc	1pc	7g x 1pc	14g x 1pc	1pc

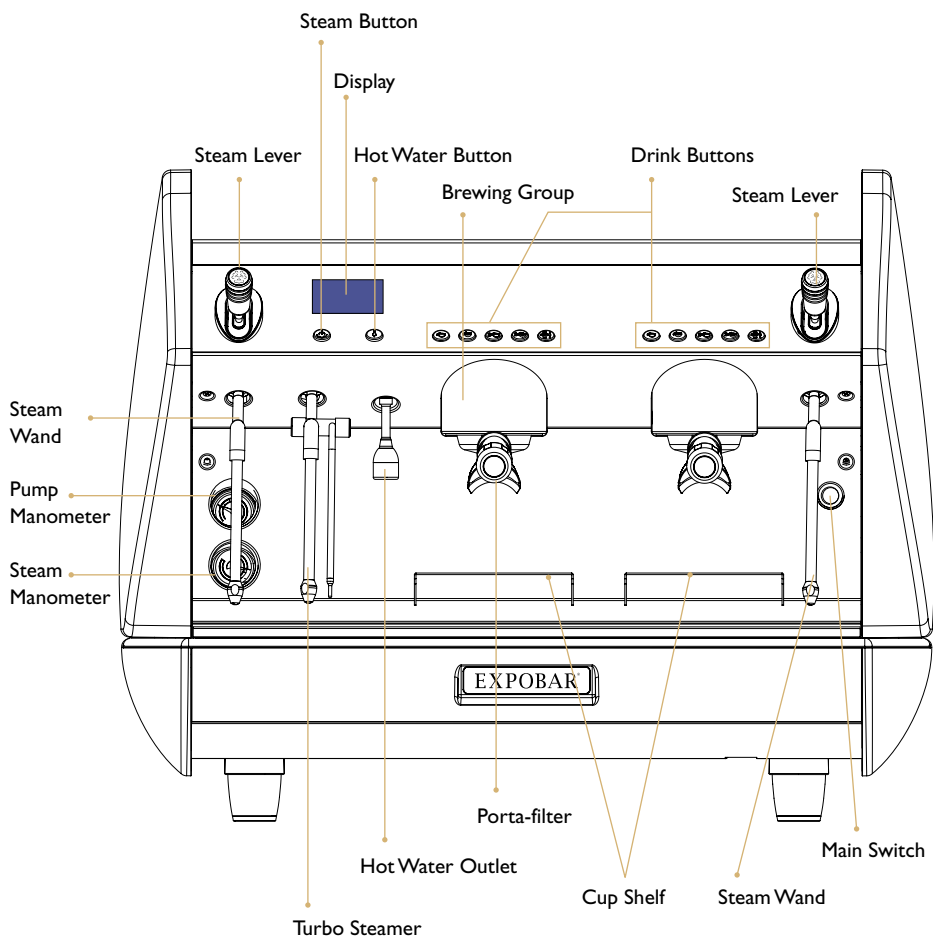
Front view

Carat I group



Front view

Carat 2 groups



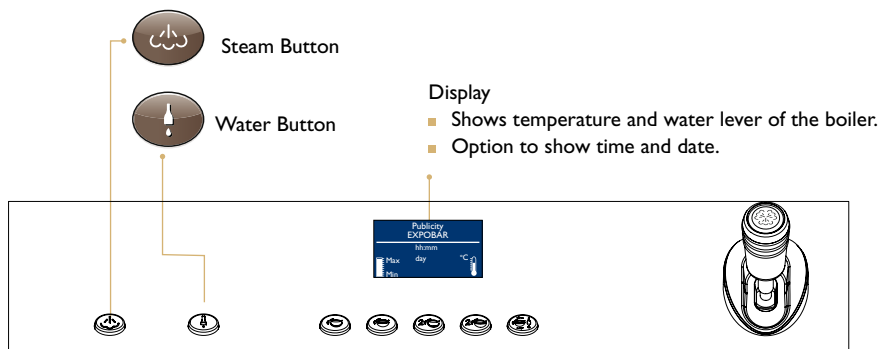
Electronic control panel

Buttons function

Here is some of the additional functions that the electronics offers:

- Volume control of four different espresso drinks per brewing group.
- Time-controlled hot water dispensing.
- Automatic filling and level control of the boiler.
- Automatic switch off of the heating element if not enough water.
- System supervision through alarms.
- Automatic cleaning of the brew groups

The control panel is by default programmed with 4 standard drinks (these can be reprogrammed as you wish) and a continuous selection. The first four keys (1 short espresso, 1 long espresso, 2 short espresso, 2 long espresso) brew the programmed volume and then stop automatically, the fifth key brews continuously until user stops it by pressing button again.



1 Short Espresso



2 Short Espresso



1 Long Espresso



2 Long Espresso

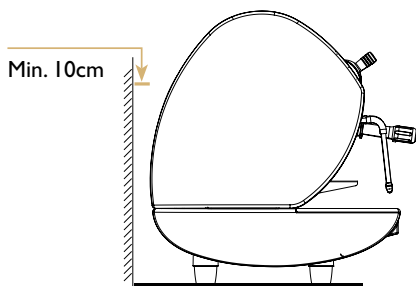


Continuous

Depending on how long this button is pressed it has 3 functions:

- Less than 1 second, activates the hot water for infusions dosing.
- Between 1 and 8 seconds, activates continuous espresso dispensing, in order to stop the dispensing, press the button again.
- Over 8 seconds, activates the programming menu. This is explained later in programming part.

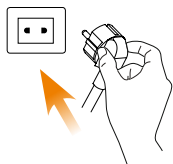
Positioning



- When positioning the machine, it should be as horizontal as possible, so the espresso will come out evenly in the cups, through all the spouts of each group.

Note Make sure air is able to circulate behind the machine (minimum 10cm).

Electrical installation



1 Group

■ **IMPORTANT!**

Connect the plug to a separate earthed wall socket.
220-230VAC, 2750W, 16 Amp.

2 Group

- The brewer is not reconnectable and may only be installed to the electric supply network with a voltage that is stated on the brewer and shall be carried out by an authorized electrician.
- Recommended: install a line circuit breaker and a earth fault breaker to the machine.

■ **CAUTION!**

Connection to a separate 3 phase only
- Brewer should be connected to 380V with zero and earth.
- Use 10 or 16 Amp fuses.

■ **IMPORTANT!**

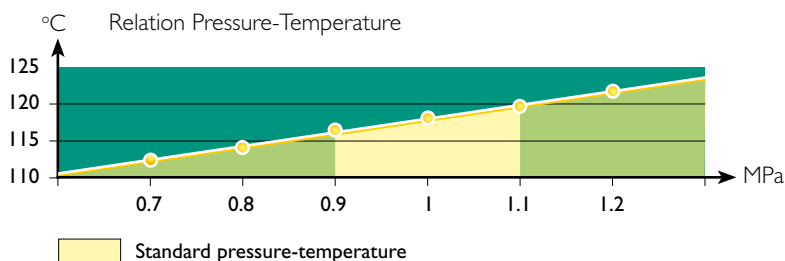
Electrical installations must be done of an certificated electrician: 380V 2N/
2750W

Water connection

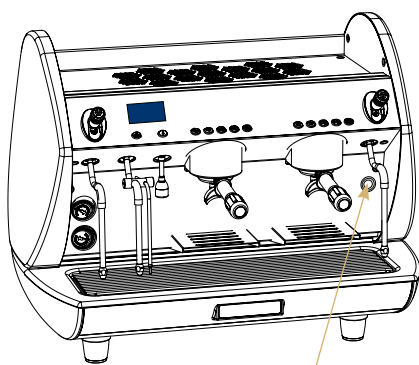
- Using the flexible hose provided with the machine, connect it to a connection hose 3/8" male, with closing valve.
- Placement of a water softener filter between the valve and the machine is mandatory (among all the spare parts you should have another flexible hose of 50 cm in order to connect both water softener filter and valve).

Filling up the boiler

- When the machine is turned on, it will automatically fill up the boiler with water.
- The manometer shows the pressure inside the boiler. There is a direct relation between the pressure and temperature in the boiler: (see fig.)



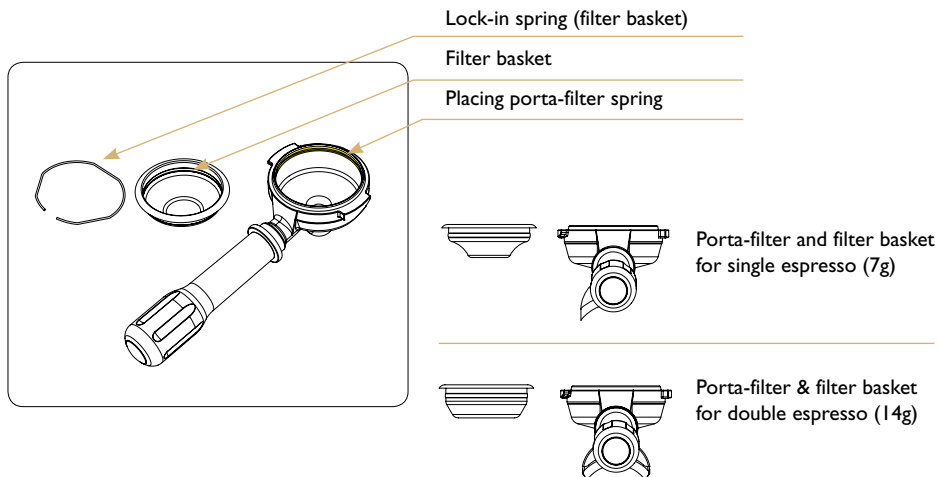
First start up



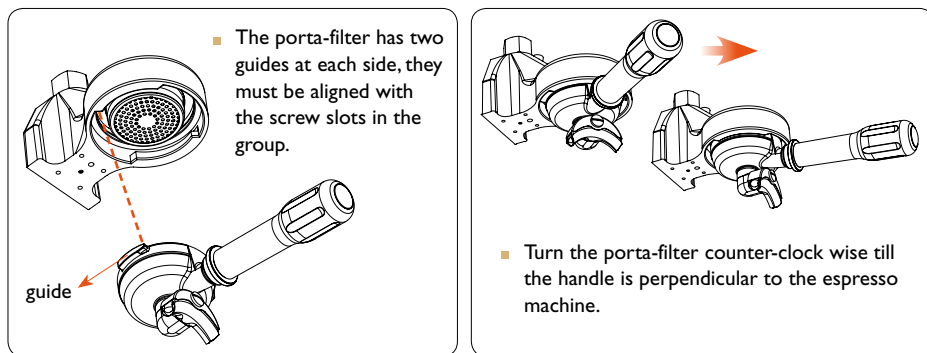
power switch

- Open the external supply of water to the machine.
- Turn on the main power switch.
- Press the brew switch or one selection at the control panel on each group, wait until water comes out continuously from each of them. This way the heat exchangers in the machine will be correctly filled.
- Turn on the steam lever until steam comes out. This way we will evacuate the remaining air that could be trapped in the boiler.
- The display will show that boiler is heating-up. Once it turns off, it means the machine has reached the ideal temperature.
- The machine is ready to use.

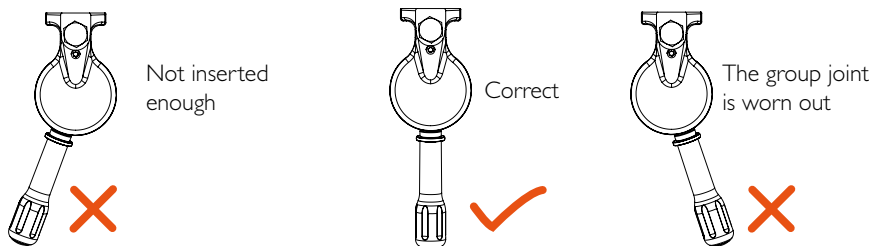
The porta-filter set



How to lock the porta-filter in the group head



Correct position of the porta-filter in the group head:

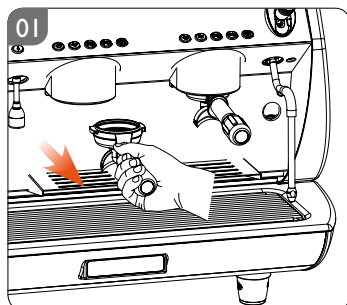


Espresso brewing

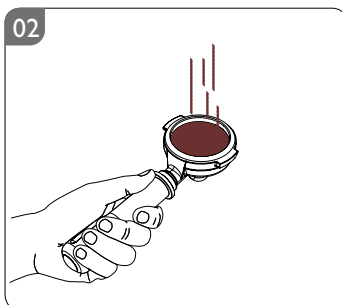


IMPORTANT!

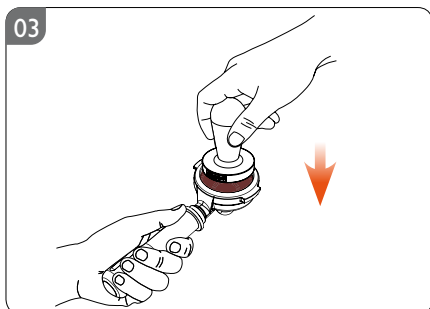
Always keep the porta-filter inserted in the group to keep it warm. This is very important to maintain an optimal temperature to get the best espresso.



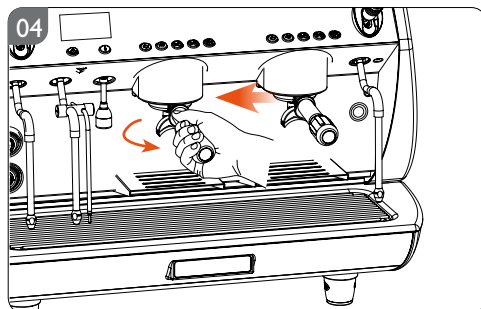
▲ Unlock and remove the porta-filter from the group head.



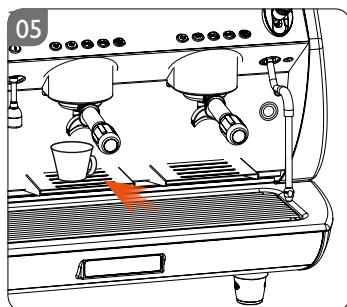
▲ Fill the filter basket of the porta-filter with espresso powder (the amount may differ depending of the filter basket size). For best result use freshly ground espresso beans.



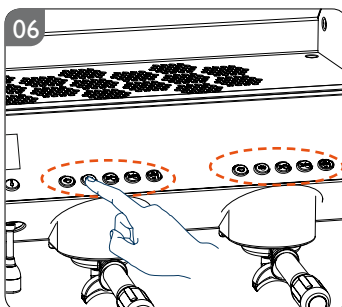
▲ Press down the coffee with the coffee tamper (around 5kg of pressure).



▲ Insert the filled porta-filter into the group head and lock it into correct position.

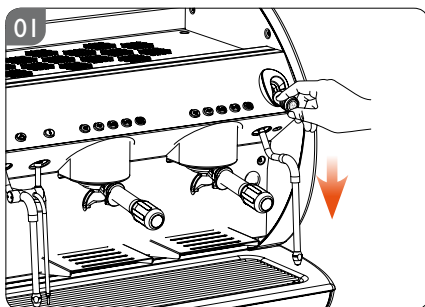


▲ Place one or two cups beneath the outlet spouts.

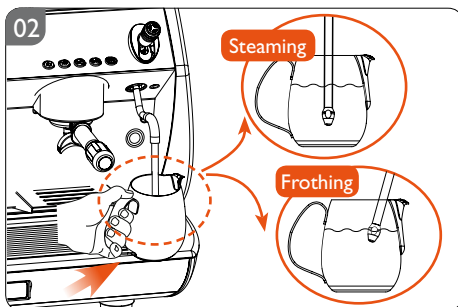


▲ Select the desired option from the drink buttons.

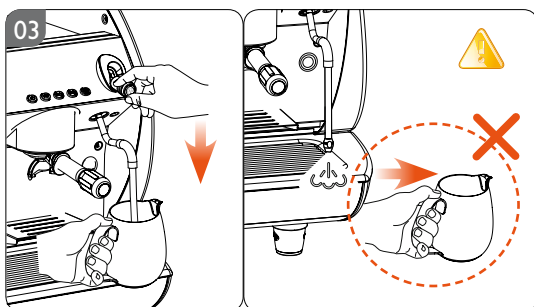
Steaming and frothing milk



- ▲ Place the steam wand over the drip tray and open the steam lever for a few seconds, this will allow condensed water to be ejected. Close the steam lever when only steam comes out.



- ▲ Immerse the steam wand into the liquid container you want to be heated up.

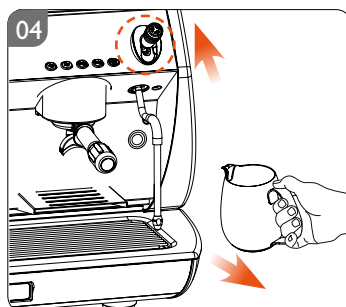


- ▲ Open the steam lever again to start heating the liquid.

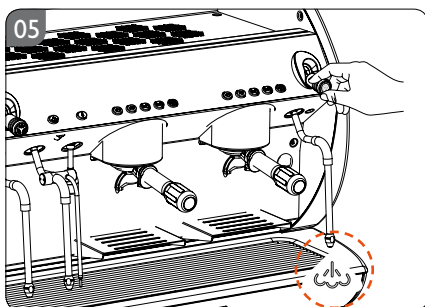


CAUTION!

Do not remove the steam wand out of the liquid container when the lever is open, it may cause serious burns and injuries.



- ▲ Once the liquid reaches desired temperature and the process is finished, close the steam lever and remove the liquid container.

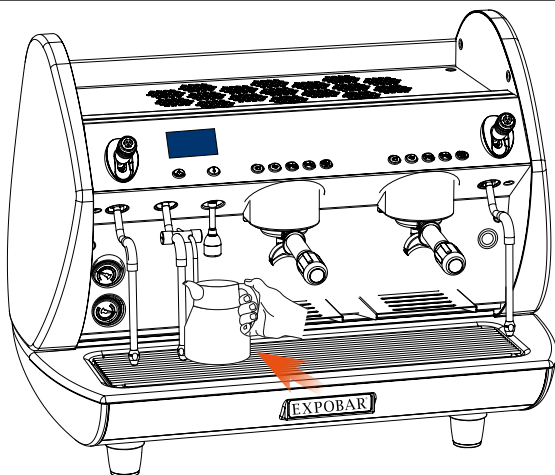


- ◀ After the process is finished, position the steam wand over the drip tray and open the steam lever for a few seconds to clean leftovers of milk or other liquids. Close the lever and clean the outside of the steam wand with a damp cloth.

Hot water dispensing

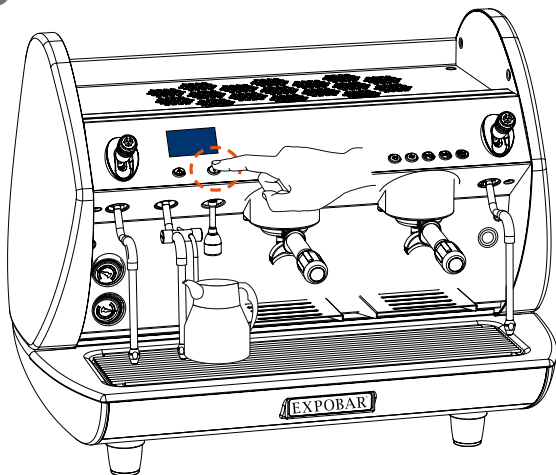
01

- Place a container under the hot water outlet.



02

- ◀ Press the hot water button, when you have reached the desired amount press it again to stop dispensing.



Cleaning of the espresso machine

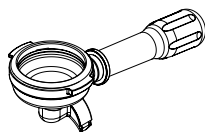




REMEMBER!

To always get the best performance from the machine, descaling and cleaning must be performed continuously. Always turn off the main power switch prior to external cleaning.

All external body parts can be cleaned with a damp cloth. Do not use abrasive or dissolvent products.

Cleaning of group head and porta-filter



- Unlock and remove the porta-filter from the group head.
- Replace the filter basket of the porta-filter with one of the provided blind filters baskets or rubber gasket.
- Pour espresso cleaning detergent into the porta-filter; follow the instruction label on the cleaning detergent to get correct amount.
- Lock the porta-filter into the group head.
- Activate the automatic cleaning cycle as follows. When the machine is in idle mode, press simultaneously the buttons  and . When cleaning starts you may release the buttons and machine will automatically repeat the cleaning cycles 5 times until it completed.

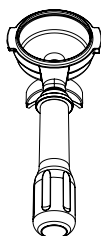


IMPORTANT!

Once cleaning process is finished, remove the porta-filter and run water through the group again to rinse out all remains. Repeat the cleaning process this time without detergent for removal of any remains of the cleaning product. Finally re-install the original filter basket on the porta-filter; store the blind basket in a convenient place.

Do not manipulate the porta-filter during the automatic cleaning process.

- It is recommended to clean the filter membrane without detergent every day.
- Cleaning the groups with blind basket and detergent is recommended once a week.

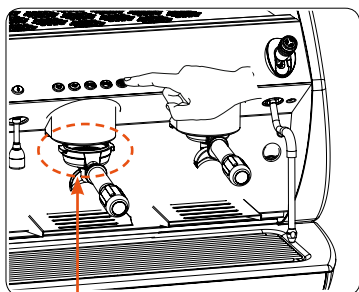


Blind Gasket



Espresso detergent
Part No. : 1104162

Cleaning of gasket and shower



It must be loose

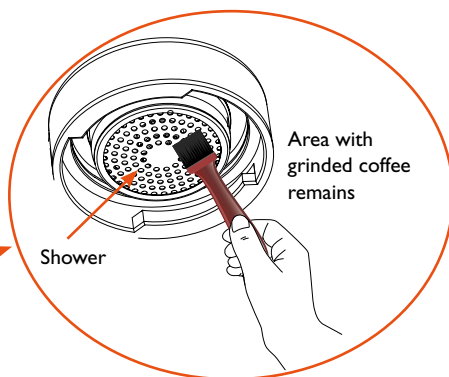
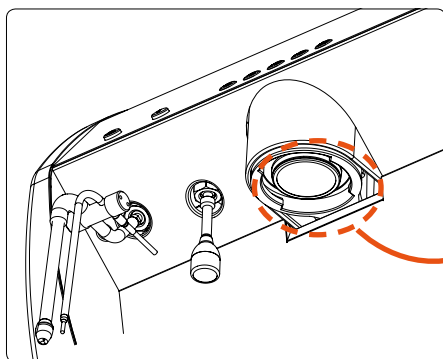
When placing the porta-filter filled with grinded coffee into the brewing group, left overs will accumulate in the closing surface. If these remains are excessive it can prevent a good closing between the porta-filter and the group head. Moreover, these remains can even block the dispensing of water through the group head.

To prevent this perform the following cleaning:

- Install the blind basket or gasket into the porta-filter without cleaning detergent.
- Place the porta-filter in the group head, without attempting to close it.
- Start a continuous espresso.
- Make an opening-closing movement of the porta-filter in place without closing it. Water will now flow around the porta-filter, flowing through the closing surface and cleaning it. Be very careful, as this water is very hot, and can cause burns.

Group head shower cleaning

- Remove the porta-filter from the group head.
- Clean the shower with a soft brush to remove any coffee remains



Espresso machine status

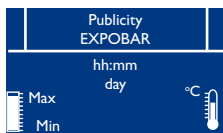


fig.A

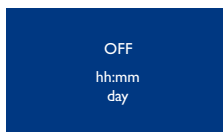





fig.B

The espresso machine has 3 possible status:

■ On status

The machine is active and ready for brewing espresso. Generally when switching on the main switch, the machine will enter this status. (See fig.A)

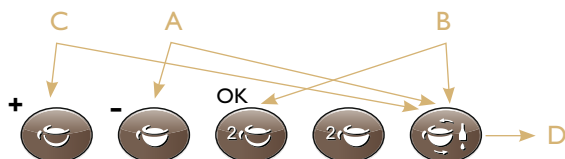
■ Stand by status

The main switch is on, espresso machine is OFF status and this is shown in the display (See fig.B). To get to this status, begin with the machine in ON status. Press the continuous button  without releasing it, press the button  (2 short espresso). The machine will show "OFF" on the display. To get out from this status press the button  (2 short espresso), the machine will come back to ON status.

■ Off status

The espresso machine is totally disconnected.

Programming capabilities with buttons



A Group boiler ON/OFF

When machine is in ON status, press Continuous + 1 long espresso button simultaneously to turn the group boiler to ON/OFF mode. (multi-boiler machines)

B Standby mode

Press and hold Continuous button then tap 2 short espresso button, this will activate the standby mode (only left keypad)

C Automatic cleaning

When machine is in ON status, press Continuous + 1 short espresso button simultaneously to activate automatic cleaning function.

D Activate programming menus

There are 2 levels of programming menus that can be reached while machine is in ON status. At the first level it is possible to adjust drink volumes. The second level access menus for adjusting clock/date and view counter etc...

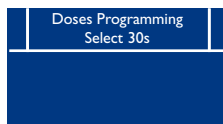


fig.A

■ **To access first level follow these steps:**

Keep the continuous button  pressed over 8 seconds, all the lights in the keypad will light up and continuous button will flash. Release the button and the display have changed according to fig.A.

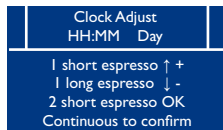
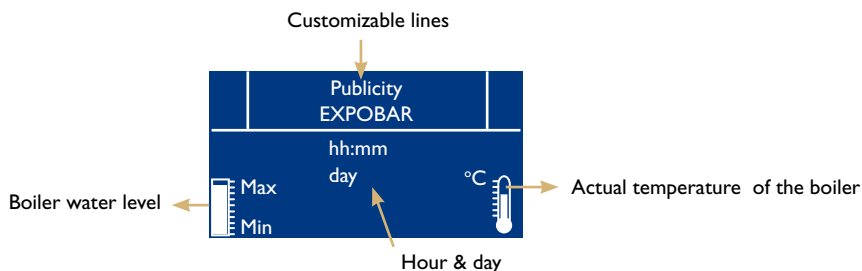


fig.B

■ **To access second level follow these steps:**

Keep the continuous button  pressed over 8 seconds, all the lights in the keypad will light up and continuous button will flash. Do not release the button until the display shows Clock adjust according to fig.B.

Display explanations




- Digital control and visualization of the temperature in the boiler.
- On-display help for reprogramming and adjusting.
- Visual alarm about the need of replacing water softener.

Programming of espresso volume

Each volume reprogramming must be done with fresh ground coffee each time.

This section covers how to program the volume that will be automatically dispensed by each selection on the control panel.

- Keep the continuous button  pressed over 8 seconds, all the lights in the keypad will light up and continuous button will flash.
- Within 30 seconds press any selection that you want to reprogram (1 short espresso, 1 long espresso, 2 short espresso, 2 long espresso). Notice that all the lights will turn off except the selection you made and the continuous button.
- The group begins to dispense espresso, when the desired volume of espresso is reached, press the selection button that is light up to stop dispensing, this volume will now be stored as default.
- Repeat this process with all the selections that needs to be reprogrammed.




In case you only want to reprogram one of the selections, acts as previously described and only reprogram one selection. The other selections will keep the existing settings.






IMPORTANT!

When you reprogram any selection on the left key pad (facing the machine), this volume will be stored in all other key pads automatically as well. This only happens if you program on the left key pad. If you program at any other key pad it will not overwrite any other key pads and only affect the selected button.

Programming of hot water volume

- Keep the continuous button  pressed over 8 seconds, all the lights in the keypad will light up and continuous button will flash.
- Press the continuous button  for less than 1 second. Water will dispense from the hot water wand.
- Press the same button  again to stop the dispensing and store the new volume. Different water volumes can be stored in each keypad.

Programming temperature for the turbo steamer

- Keep the continuous button  pressed over 8 seconds, all the lights in the keypad will light up and continuous button will flash.
- Immerse the steam wand in the liquid to be heated up.
- Press the steam button .
- When the liquid reaches the desired temperature, press steam button  again to stop. The new temperature is now stored.

When programming this button it will only affect the temperature of the liquid, not the time steaming. Once the electronic steam wand with temperature probe reaches the programmed temperature it will automatically turn off. Different volumes of liquid will not affect the temperature.

Maximum security time

Every selection has a maximum allowed time for brewing of 5 minutes.

Access to second level menus

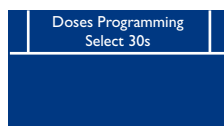


fig.A

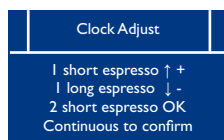







fig.B

- Keep the continuous button  pressed over 8 seconds on the left keypad.
- (Entering first level, See fig.A). Now all the lights in the keypad will light up and continuous button will flash. Do not release the continuous button  until the display shows “Clock adjust”(See fig. B). From this point we are in the second level menu.
- Enter “Clock adjust” by pressing the button  (2 short espresso) or browse through the system with button  (1 short espresso) or  (1 long espresso).

Clock adjustment, hour, minutes and day

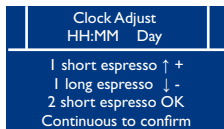




















fig.C

- To adjust the clock press the button  (2 short espresso) while “Clock adjust” is displayed.(See fig. C)
- The hour starts to flash, increase or decrease its value by pressing the button  (1 short espresso) or  (1 long espresso). When the rightvalue is reached, accept it by pressing the button  (2 short espresso).
- Now the minutes starts to flash, increase or decrease its value by pressing the button  (1 short espresso) or  (1 long espresso). When the right value is reached, accept it by pressing the button  (2 short espresso). Then the day of the week can be adjusted in the same way ( ,  & ).
- When all values have been adjusted and is confirmed with button  (2 short espresso) the display will proceed to the next menu.


Auto on/off

Auto On/Off On: Hh:mm
1 short espresso ↑ +
1 long espresso ↓ -
2 short espresso OK
Continuous to confirm

Fig. A










- After accepting the adjusting made in the time and day by pressing the button  (2 short espresso), we enter in the programming of the automatic ON/OFF function of the machine.(See fig. A)
- To modify the time which the machine automatically gets into the “ON” status, while the hour is flashing, increase or decrease its value by pressing the button  (1 short espresso) or  (1 long espresso). When the right value is reached, accept it by pressing  (2 short espresso). Then the minutes will start to flash and will be adjustable in the same way (,  & ).

Note

By default, this first value will be: On: - - : - - this means that the function is disabled. As soon as we modify the value, and it become different from - - : - - the function will be enabled. If we prefer to leave this function disabled, just accept by pressing the button  (2 short espresso) while the adjusted value is - - : - - .

Auto On/Off Off: Hh:mm
1 short espresso ↑ +
1 long espresso ↓ -
2 short espresso OK
Continuous to confirm


Fig. B

- Now the automatically OFF time is flashing, increase or decrease its value by pressing the button  (1 short espresso) or  (1 long espresso). When the right value is reached, accept it by pressing the button  (2 short espresso). Then the minutes will blink, and will be adjustable in the same way(,  & ). With this final confirmation, display will proceed to the next menu.(See fig. B)
- If automatic ON and OFF times have been assigned, a day off can be enabled in which the machine will not switch on at all. The day off menu will not appear if the automatic ON/OFF times is not set.(See fig. C)
- To adjust the day OFF, increase or decrease its value by pressing the button  (1 short espresso) or  (1 long espresso). When the right value is reached, accept it by pressing the button  (2 short espresso).

Closed on Day
1 short espresso ↑ +
1 long espresso ↓ -
2 short espresso OK
Continuous to confirm

Fig. C

Note

By default, this setting will be: - - : - - this means that the function is disabled. As soon as we modify the value, and it become different from - - : - - the function will be enabled. If we prefer to leave this function disabled, just accept by pressing  (2 short espresso) while the adjusted value is - - : - - .

Counters

There are 4 counters available:

- Litres of water which have come through the machine (help to know when decalcifying is needed)
- Total coffee and hot water brewings
- Coffee brewings per dose keypad

Counters access

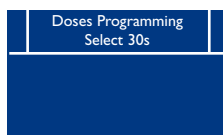


Fig. A

- Keep the continuous button  pressed over 8 seconds on the left keypad. (See fig. A)

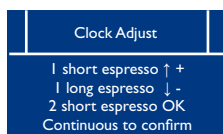



Fig. B

- (Entering first level, fig. A.). Now all the lights in the keypad will light up and continuous button will flash. Do not release the continuous button  until the display shows "Clock adjust" (See fig. B). From this point we are in the second level menu.

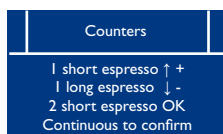


Fig. C

- Press briefly the continuous button , the display will show the option "Counters". (See fig. C)

Possible faults

Failures produced by lime	
The coffee does not come out at a appropriate temperature:	The outlet tubes of heat exchangers are clogged by lime
Water does not come out from the groups:	Lime blocks the water getting through
Ninety percent of failures are caused by lime build-up in the machine when none water treatment operation is done. Is very easy to avoid this kind of failure by performing the regular maintenance of the water softener.	
Problems due to grind setting	
Coffee comes out very fast:	Adjust the grinder setting, the grind is too coarse
Coffee comes out very slow:	Adjust the grinder setting, the grind is too fine
If you observe any malfunctioning in the coffee machine contact the technical service.	

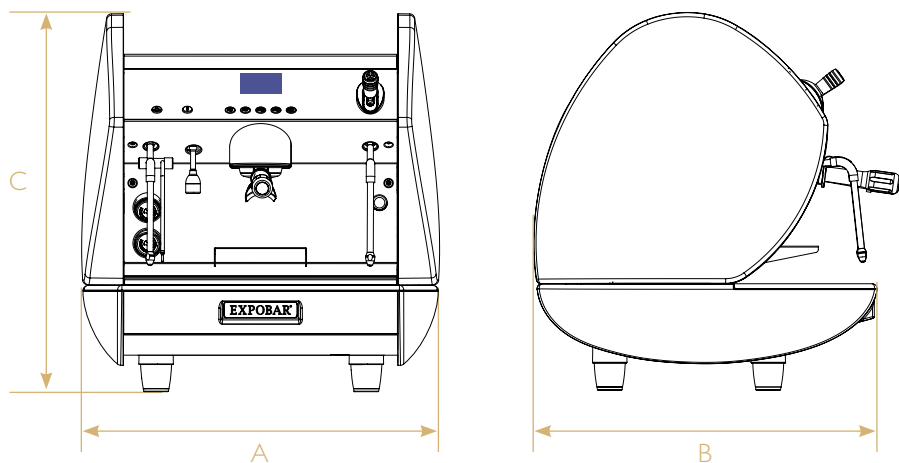
Recommendations

- You should clean the group head without soap every day, only use the blind filter basket and water.
- You should clean the group head with espresso detergent (as described in this manual), at least once a month.
- You should regularly replace the water softener, according to the time interval described on the water softener label.
- Use freshly ground espresso beans to get the best properties, aroma and flavor when dispensing a drink.
- In order to obtain a good espresso drink, remember that both the group head and the porta-filter must be hot and at a constant temperature, keep the porta-filter placed in the group head when not in use.

Cautions

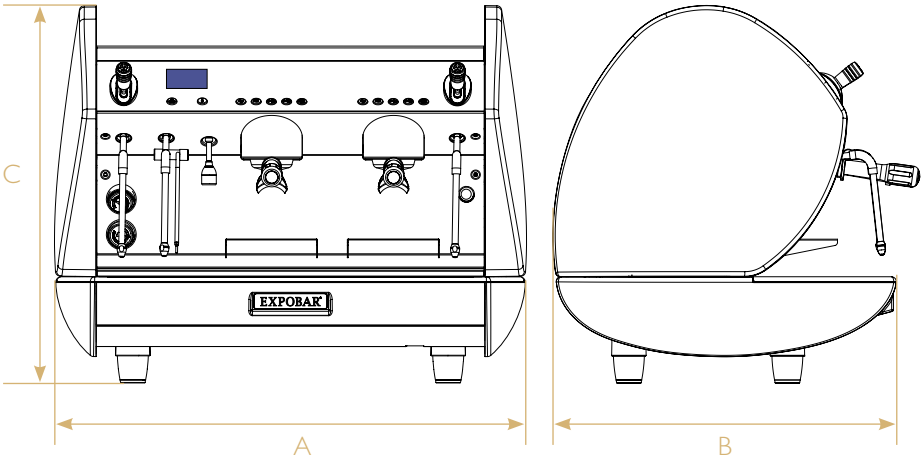
- While dispensing espresso do not attempt to take out the porta-filter. Hot water at high pressure could be projected and cause serious burns or injuries.
- Never try to access the inside of the machine, this must be done only by authorized technicians.
- Do not insert any kind of object through the openings and ventilation holes of the machine.
- Frequently check the drip tray and make sure all water is drained properly.

Carat I group



Model	A	B	C
Carat IGR standard	586mm	563mm	620mm
Carat IGR turbo steamer	586mm	563mm	620mm
Carat IGR turbo steamer with touch buttons	586mm	563mm	620mm

Carat 2 groups



Model	A	B	C
Carat 2GR standard	774mm	563mm	620mm
Carat 2GR turbo steamer	774mm	563mm	620mm
Carat 2GR turbo steamer with touch buttons	774mm	563mm	620mm

For the warranty to be valid the conditions for maintenance must have been followed according to our instructions, proper precaution has been made and warranty claim been issued without delay.

The affected equipment may not be used during awaiting service if there is any risk that the damage or defect would worsen.

The warranty will not cover consumption supplies such as glassware, normal maintenance such as cleaning of filters, contaminations in water, lime, incorrect voltages, pressure or adjustment of water amounts.

The warranty will not cover damages of defects caused by incorrect handling and operation of the appliance.

FOR SERVICE

Please contact your dealer

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