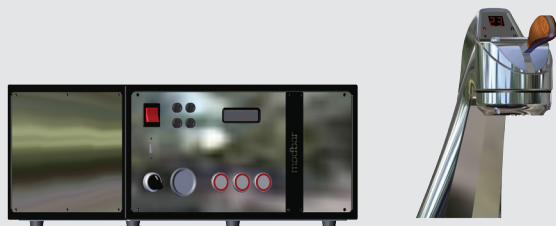


# manual

## modbar av - espresso system

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  
XXXXXXXXXXXXXXXXXXXXXXXXXXXX  
XXXXXXXXXXXXXXXXXXXX  
XXXXXXXXXXXX



modbar™

# modbar av - espresso system

Operating Manual V1.0 - 03/2018  
MAN.21.01.1

# modbar™

## Chapters

1. General Warnings and Safety Specifications	page 3	La Marzocco S.r.l.
2. Definition of Available Models	page 7	Via La Torre 14/H Località La Torre 50038 Scarperia e San Piero (Firenze) - ITALIA
3. Installation	page 11	<a href="http://www.lamarzocco.com">www.lamarzocco.com</a> <a href="mailto:info@lamarzocco.com">info@lamarzocco.com</a>
4. Machine Operation and Coffee Preparation	page 19	T: +39 055 849 191 F: +39 055 849 1990
5. Maintenance and Periodic Cleaning Operations	page 23	
6. De-commissioning and Demolition	page 26	
7. Mandatory Maintenance and Check-up Operations	page 27	
8. Precision Scale	page 28	
9. Software Programming Guide	page 30	

certifications available:



## 1. General Warnings and Safety Specifications

**WARNING**

This machine is for professional use only and should be installed in locations where its use and maintenance is restricted to trained personnel. Children are forbidden to operate or play with the machine.

**WARNING**

The **Espresso Tap** must be placed in a horizontal position on a counter higher than 80 cm from the ground.

**WARNING**

This machine is not suitable for outdoor use. Jets of water should not be used to clean the machine, nor should it be placed where water jets are used.

**WARNING**

As already mentioned in the preceding notes, the manufacturer shall not be held responsible for damage to objects, animals and/or people whenever the machine has not been installed according to the instructions contained in this manual, and is not used to do what it was designed for (i.e. preparing coffee and hot drinks).

### 1) Important safeguards

- The weighted sound pressure level of the machine is lower than 70dBA.
- Use, cleaning and maintenance of this coffee machine are realized by people (including

children more than 8 years of age) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, as long as they have been given supervision or instructions concerning the use of the appliance by a person responsible for their safety and if they understand dangers.

- Children should be supervised to ensure that they do not play with the appliance.
  - Keep the appliance and its cord out of the reach of children less than 8 years of age.
- 2) This operating manual is an integral and essential part of the product and

must be supplied to users. Users are asked to read the enclosed warnings and cautions carefully, as they provide valuable information concerning safety during installation, operation and maintenance. This manual must be kept in a safe place and be available for consultation to new and experienced users alike.

**3)** Ensure product's integrity by inspecting the packaging, making sure it presents no signs of damage which might have affected the enclosed machine.

**4)** Check the machine's integrity after having carefully removed the packaging.

**Note: In case of doubt, do not go on any further and contact your**

**dealer or retailer immediately. They will send out specialized personnel authorized to perform service on the espresso machine.**

**5)** Packaging (boxes, plastic bags, foam parts and whatever else) must not be left around within easy reach of children, due to the potential danger it represents, nor be discarded in the environment.

**6)** Check to see that data on the rating plate corresponds to those of the main electrical supply which the machine will be hooked up to.

**7)** The equipment must be installed to comply with the applicable federal, state or local electrical and plumbing codes. The installation also must comply to the manufacturer's instructions,

and must be performed by qualified and authorized personnel.

**8)** Incorrect installation may cause for injury/damages to people, animals or objects, for which the manufacturer shall not be held responsible.

**9)** Safe electrical operation of this device will be achieved only when the connection to the power outlet has been completed correctly and in observance of all local, national, and international electrical codes and safety regulations, and particularly by grounding the unit. Make sure grounding has been done properly as it represents a fundamental safety requirement. Ensure qualified personnel check

such connection.

**10)** Furthermore, you must ensure that the capacity of the available electrical system is suitable for the maximum power consumption indicated on the espresso machine.

**11)** We do not recommend using adapters, multiple plugs and/or extension cords. If you cannot avoid using them, make sure that they are exclusively of the kind which conforms to local, national, and international electrical codes and safety regulations, being careful not to exceed the power and current ratings indicated on such adapters and extension cords.

**12)** This device must be used exclusively for the functions it has been designed and built

for. Any other application is inappropriate and dangerous.

**The manufacturer shall not be held responsible for any damages caused by improper and/or irrational use.**

This machine should not be installed in kitchens.

**13)** Using any electrical device requires that certain fundamental rules be observed. In particular:

- do not touch the device with wet or humid hands and feet;
- do not use the device while having no shoes on your feet;
- do not use extension cords in bath or shower rooms;
- do not unplug the device from the power outlet by pulling on the power supply cable;

- do not expose the device to atmospheric agents (rain, sun, etc.);
- do not allow children or untrained people to use this device;
- do not clean the control panel with a wet cloth since it is not watertight.

**14)** Before carrying out any maintenance and/or cleaning operations, turn the main switch, which is located on the front left of the machine, to the “0” or “OFF” position, and disconnect the machine from the electrical network by unplugging the cord or by switching off the relative circuit breaker. For any cleaning operation, follow exclusively the instructions contained in this manual.

**15)** In case the machine is operating in a faulty manner or breaks down, disconnect it from the electrical network (as described in the preceding point) and close the water supply valve. Do not attempt to repair it. Contact a qualified and authorized professional to perform any repair. Any repairs must be performed exclusively by the manufacturer or by an authorized centre using only original parts. Non compliance with the above could compromise the safe operation of the machine.

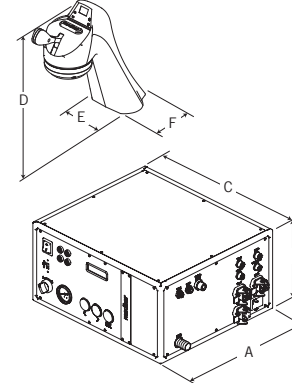
**16)** You should plan to make use of an omnipolar connector during installation, as required by local, national, and international electrical codes and regulations.

**17)** In order to avoid dangerous overheating problems, it is recommended that the power supply cable be fully unfurled.

**18)** Do not obstruct air intake and exhaust grilles and, in particular, do not cover the cup warmer tray with cloths or other items.

**19)** The machine's power supply cable must not be replaced by users. In case the power supply cable becomes damaged, shut off the machine and disconnect the machine from the electrical network by switching off the relative circuit breaker and close off the water supply; to replace the power supply cord, contact qualified professionals exclusively.

**20) Dimensions and weights common to all machines**

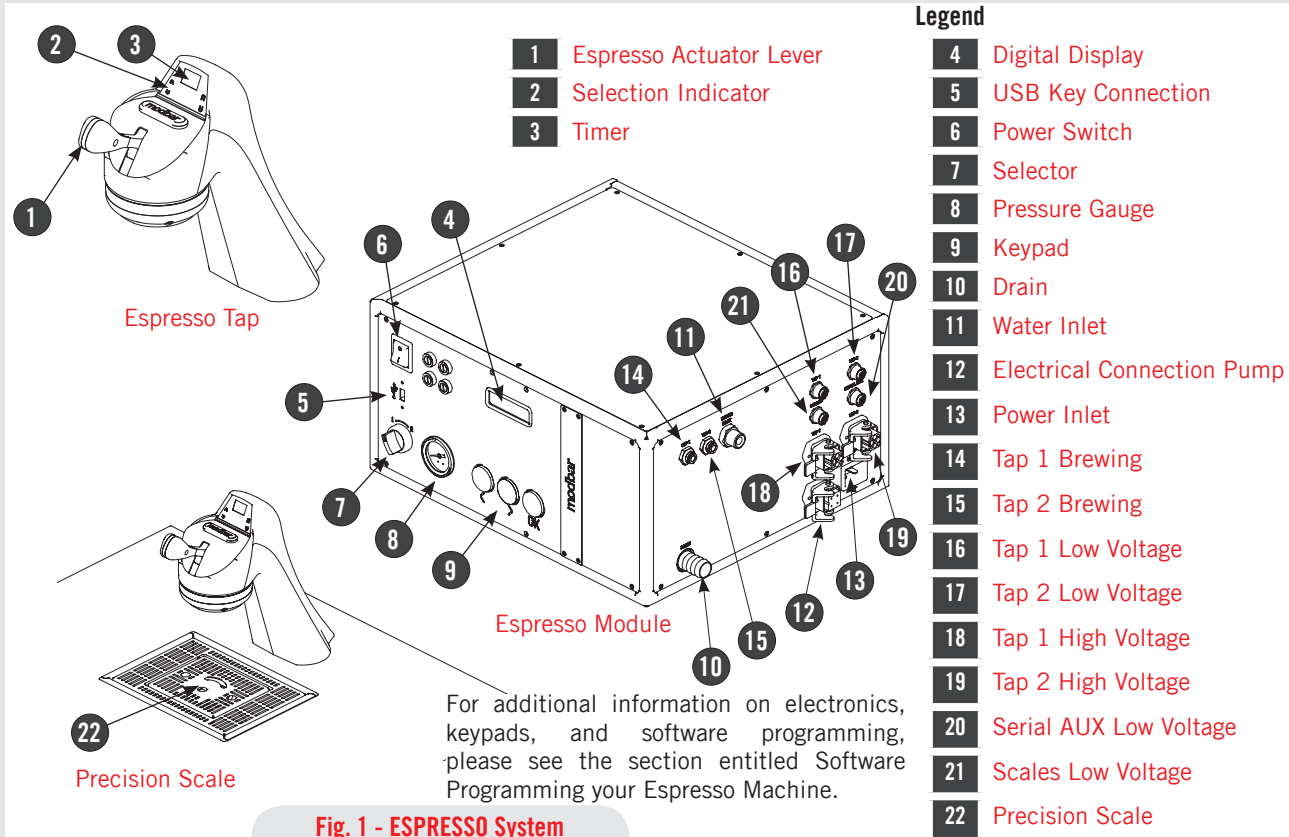


A [mm]	376
B [mm]	215
C [mm]	436
WEIGHT <sub>Module</sub> [kg]	18

D [mm]	315
E [mm]	137
F [mm]	115
WEIGHT <sub>Top</sub> [kg]	10,5

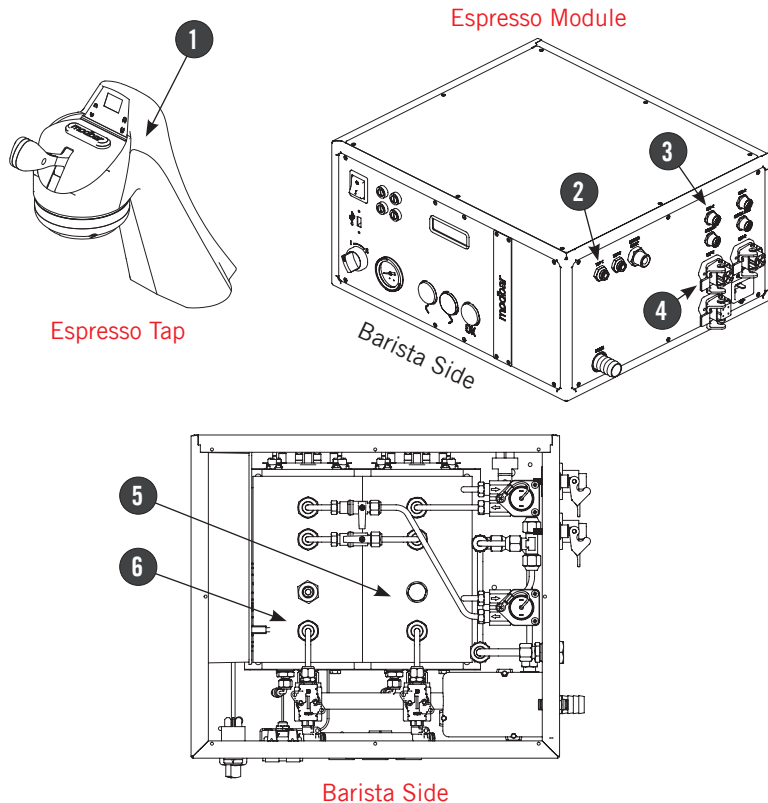
## 2. Definition of Available Models

This operating manual refers exclusively to the following models, of our own manufacture:  
**MODBAR AV, Espresso System**



**Fig. 1 - ESPRESSO System**

This operating manual refers exclusively to the following models, of our own manufacture:  
MODBAR AV 1 group, Espresso System



#### Legend

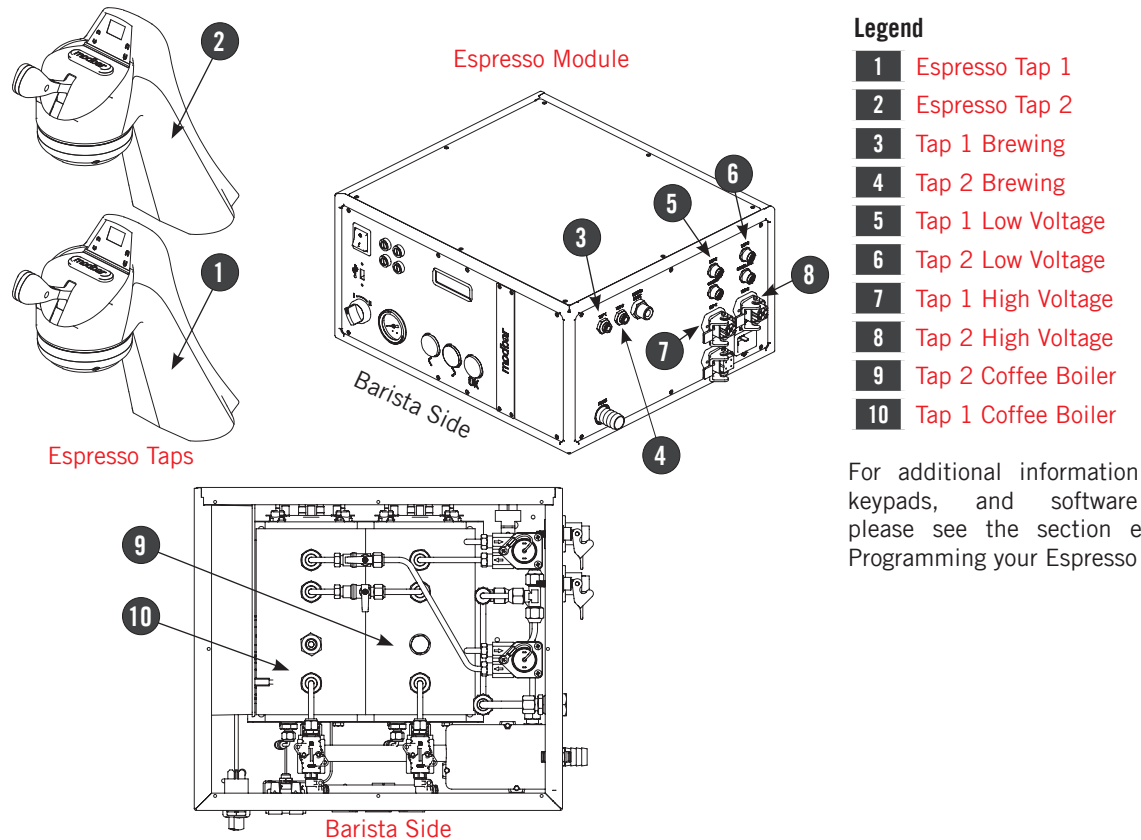
- 1 Espresso Tap 1
- 2 Tap 1 Brewing
- 3 Tap 1 Low Voltage
- 4 Tap 1 High Voltage
- 5 Preheater
- 6 Tap 1 Coffee Boiler

For additional information on electronics, keypads, and software programming, please see the section entitled Software Programming your Espresso Machine.

Fig. 1a - ESPRESSO System 1 group



This operating manual refers exclusively to the following models, of our own manufacture:  
**MODBAR AV 2 groups, Espresso System**



**Legend**

- 1 Espresso Tap 1
- 2 Espresso Tap 2
- 3 Tap 1 Brewing
- 4 Tap 2 Brewing
- 5 Tap 1 Low Voltage
- 6 Tap 2 Low Voltage
- 7 Tap 1 High Voltage
- 8 Tap 2 High Voltage
- 9 Tap 2 Coffee Boiler
- 10 Tap 1 Coffee Boiler

For additional information on electronics, keypads, and software programming, please see the section entitled Software Programming your Espresso Machine.

**Fig. 1b - ESPRESSO System 2 groups**

## 1) General Description

The machine is built in 1 and 2 coffee group versions and is essentially composed of the following parts:

- Inlet and outlet boilers if one group machine or boiler 1 / boilers 2 if two groups machine;
- Brewing tap(s);
- Water pump.

## 2) Description of the various parts

### • Coffee Boilers

The Coffee Boiler consists of a cylindrical tank made of AISI 300 series stainless steel. Each unit is subjected to a hydraulic test, at a pressure of 18 bar, and has an operating pressure of 9 bar. The following, is the effective volumes:

2 coffee boilers    1.4 liters each

Covers are welded at either end of the cylindrical tank and on one of them there is a housing for the water heating elements. The temperature of the coffee boiler is maintained by an electronic temperature controller (PID capable) with an accuracy of 0.2°C.

It consists of AISI 300 stainless steel tubes. Heating is accomplished through an immersion-type plated heating element.

- Operating temperature 95°C (adjustable), controlled automatically by an electronic temperature controller with an accuracy of 0,2°C. The pressure is limited by a expansion valve, hereinafter referred to as “safety device”.

- Operating temperature 95°C (adjustable), controlled automatically by an electronic temperature controller with an accuracy of 0.2 °C. Operating pressure of 9 bar.

- Pressure is displayed through a pressure gauge with a scale from 0 to 18 bar.

- Safety device, based on an expansion type mechanical valve, with counteracting spring adjusted to 13 bar.

- Testing: Hydraulic test at 18 bar performed on ready-to-use small boilers, at our factory.

### • Brewing groups

They consist of a precision casting made of stainless steel. The brewing group accepts the portafilter used to hold the ground coffee; the espresso flows through the brewing group, through the portafilter basket, through the portafilter spout, and into the cup(s) after the brewing button has been pressed.

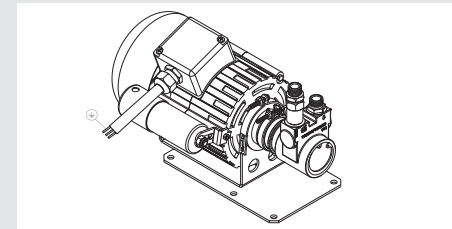
### • Exterior cover

The exterior consists of painted and stainless sheet steel panels. To provide





good aesthetics, to optimize ergonomics for the operator and to reduce the chance of damage to a minimum.

### • Water pump


The rotary vane pump, is installed on the water supply tubing and is set up to operate anytime the coffee groups are activated, and through an autofill system whenever the water boiler needs to be replenished.



### • Machine ETL plate:


<b>modbar</b> modular brewing systems		<b>SERIAL #:</b> PR000000	
<b>MODEL:</b> Espresso AV System	<b>MFG. DATE:</b> 11/21/2017		
<b>208 Vac / 13,1A / 2,733W / 60hz. / 1-Phase</b>			
<b>220-240 Vac / 14,2A / 3,264W / 60hz. / 1-Phase</b>			
<b>CAPACITY: 2.8L</b>	<b>MAX. PRESSURE: 217,5 PSI</b>		
<b>WATER SUPPLY:</b> 1-GAL. / MINUTE MIN 35 PSI - MAX 70 PSI	<b>READ OPERATING MANUAL BEFORE USING THIS EQUIPMENT</b>		
<b>CONFORMS TO UL STD 197 CERTIFIED TO CSA STD C22.2 NO.109</b>			

### 3. Installation

MODEL/SERIES	BOILER GROUP	V/Hz	RATED POWER (W)	RATED INPUT (A)	MODULE WATTAGE	TAP WATTAGE	TOTAL WATTAGE	POWER CORD SIZE (mm <sup>2</sup> )
MODBAR AV	2 BOILER	AC220-240V/50-60Hz	2682,5	11,7	2131,5	551	2682,5	SEE ELECTRICAL CONNECTIONS FOR DETAILS
	1GR	AC208/60Hz	2252,5	10,8	1801	451,5	2252,5	
<p><b>POWER CORD:</b>            3 X WIRES 1 X BLUE (NEUTRAL)            220V 1 X BROWN (PHASE)            1 X YELLOW &amp; GREEN (GROUND)</p> 								
<p><b>WARNING</b></p> <p>THE DETAILS ON THE LEFT DESCRIBE HOW TO CONNECT EACH WIRE TO THE PLUG. RESPECT ALSO THE LOCAL SAFETY REGULATIONS.</p>								

**WARNING**

In order to prevent cracks or leakage: do not store or install the Coffee machine in places where in boiler or hydraulicsystem to freeze.

MODEL/SERIES	BOILER GROUP	V/Hz	RATED POWER (W)	RATED INPUT (A)	MODULE WATTAGE	TAP WATTAGE	TOTAL WATTAGE	POWER CORD SIZE (mm <sup>2</sup> )
MODBAR AV	2 BOILER	AC220-240V/50-60Hz	3233,5	11	2131,5	1102	3233,5	SEE ELECTRICAL CONNECTIONS FOR DETAILS
	2GR	AC208/60Hz	2703	13	1801	902	2703	
<p><b>POWER CORD:</b>            3 X WIRES 1 X BLUE (NEUTRAL)            220V 1 X BROWN (PHASE)            1 X YELLOW &amp; GREEN (GROUND)</p> 								
<p><b>WARNING</b></p> <p>THE DETAILS ON THE LEFT DESCRIBE HOW TO CONNECT EACH WIRE TO THE PLUG. RESPECT ALSO THE LOCAL SAFETY REGULATIONS.</p>								

**WARNING**

For the connection of the machine, it must be provided a suitable disconnection device near the installation, so that in case of trip, it is possible to operate the device near the machine.

### Recommended Clearances

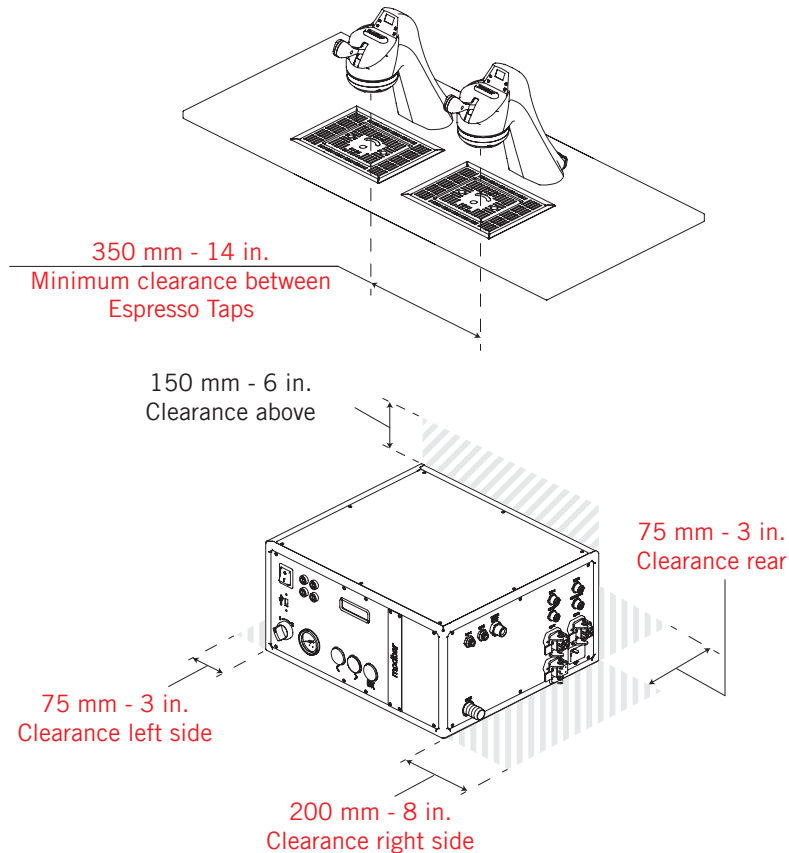


Fig. 2 - Installation guide

**WARNING**

Installation on the counter:  
For cutting the counter refer to  
cutting template placed inside  
the package.

**WARNING**

Installation on the counter with  
scales:  
The thickness of the counter must  
be between 20mm and 100mm

**WARNING**

Replace fuses with the same size,  
type and rating F1 = 2A, 250V

**WARNING**

This machine should not be  
installed in kitchens.

**▲ WARNING ▲**  
The machine is intended to be permanently connected to fixed wiring, and it is mandatory that a residual current device (RCD) with a rated residual operating current not exceeding 30mA is installed.

**▲ WARNING ▲**  
The Coffee Boiler and Steam Boiler contain water at elevated temperature. Water temperature over 125°F / 52°C can cause severe burns instantly or death from scalding (Coffee Boiler 207°F/97°C - Steam Boiler 256°F / 124°C)

**▲ WARNING ▲**  
Disconnect from power supply before the connection with the water pump.

**▲ WARNING ▲**  
At each installation, the machine should be equipped with a new set of tubes for plumbing and related gaskets.

**▲ WARNING ▲**  
Water pressure supply must be between 2 and 4 bar if sufficient pressure is not available we suggest that an additional water supply system is used.

**▲ WARNING ▲**  
Before making any electrical connections make sure that the two strain relief connectors are firmly secured to the body of the machine in order to prevent inadvertent stress on the power cables.

**▲ WARNING ▲**  
Hazardous voltage disconnect from power supply before servicing.

**▲ WARNING ▲**  
The motor pump must be situated close to the machine in an accessible place for maintenance but not for accidental interference and where there is an optimal air circulation.

**▲ WARNING ▲**  
The manufacturer declines any responsibility for any event leading to liability suits whenever grounding has not been completed according to current local, national, and international regulations and electrical codes, or other electrical parts have been connected improperly.

**WARNING**

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or with 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.

**WARNING**

- U.S.A. and CANADA only - Do not connect to a circuit operating at more than 150V to ground on each leg.

**WARNING**

This machine is not suitable for outdoor use. Jets of water should not be used to clean the machine, nor should it be placed where water jets are used.

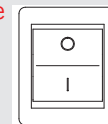
**Note:**

- The drinking water mains valve and the circuit breakers for the electrical system need to be located in the most convenient position for the operator to access them easily and quickly.
- The machine should be placed on a flat counter and must be placed in settings with the following temperatures:  
Minimum room temperature: 5°C/41°F;  
Maximum room temperature: 32°C/89°F.
- If the machine has been temporarily housed in settings with a room temperature of less 0°C/32°F, the machine must be placed in a warmer environment in order to gradually defrost the hydraulic system prior to use.
- Water pressure supply must be between 2 and 4 bar.

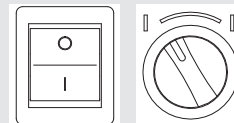
**1) Power Switch Function**

The two-position power switch on the Modbar module back panel has two separate functions: ON and OFF.

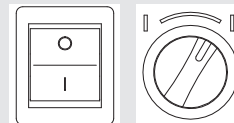
**0 - Off:** In this position, the module is in the off position.



**I - Standby Mode:** In this position, the module is in standby mode. When in standby mode, all operations function as normal, but no power is applied to the heating elements. This mode is used for priming the system upon installation, and can also be useful for some diagnostic applications.



**II - Operating Mode:** In this position, the module is in operating mode. Power is applied to the heating elements, and all functions operate as normal.



## 2) Installation guide

Upon installation, the Modbar module must be primed before use. This is accomplished by the following steps.

- Ensure that filtered water is supplied to the module.
- Ensure that the power switch is in the off position.
- Ensure that the module power cable is plugged into its appropriate power source.
- Turn the power switch counter-clockwise to place it in standby mode.
- Actuate the tap handle in manual mode, as described in the “Dispensing Operations” section of this guide.
- After water begins to pour from the tap (This may take some time on a new system) allow water to flow for at least 30 seconds to ensure that the system is primed.
- At this point, it is safe to turn the switch clockwise into operating mode.

## 3) General Use

During general use, the module is already primed, and it is not necessary to prime the system. To start the module, follow these steps:

- Ensure that filtered water is supplied to the module.
- From the off position, turn the power switch clockwise to place it into operating mode.

- At this point, the elements will begin to heat. When each heat zone reaches set temperature, the module is ready for use.

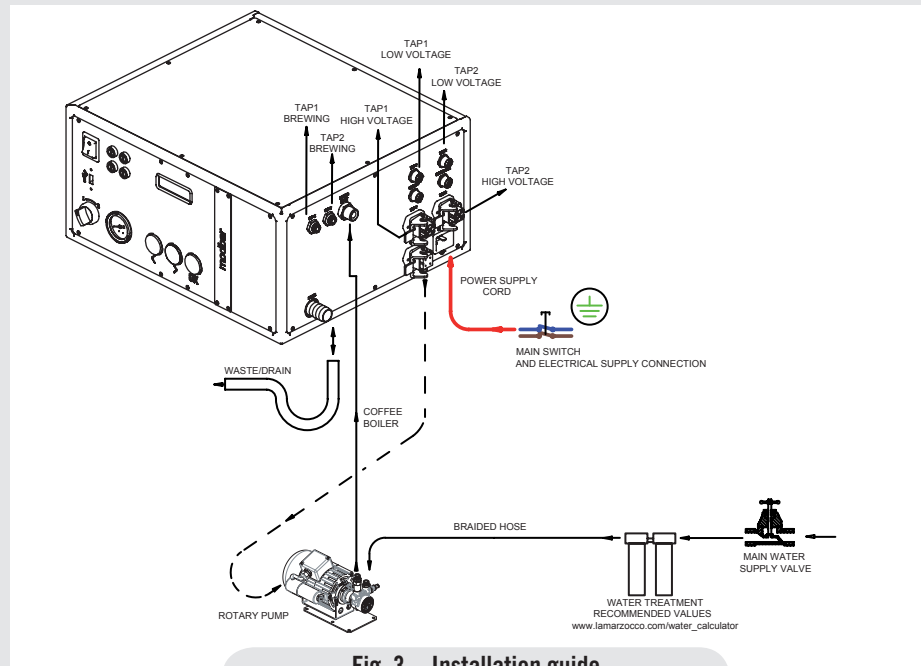


Fig. 3 - Installation guide

## 2) Accessories

Check the package to make sure that the following accessories are included:

- a number of 1-dose and 2-dose portafilters corresponding to the number of groups;
- replacement 1-dose and 2-dose filters (one of each);
- 1 tamper;
- 1 blind filter;
- cleaning detergent, for the groups;
- 3 stainless steel braided hoses for water connections;
- 1,5 mt of reinforced plastic tubing for drainage;
- 1 hose clamp.

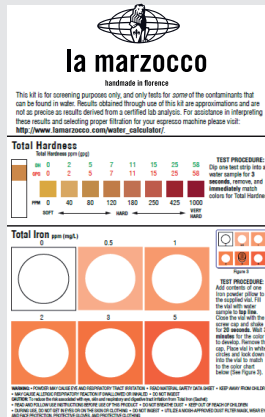
In order to proceed with installation, it is necessary that the following are available:

- Pipes carrying drinking water with a 3/8" G (BSP) end connection; (3/8" Compression for USA and Canada)
- Electrical Supply according to the specification of the espresso machine purchased:
- Single/Three phase 220VAC - 50/60 Hz electrical connection with ground, protected socket and approved interlock switch
- Single phase 200VAC - 50/60 Hz electrical connection with ground, protected socket and approved interlock switch

- Three-phase, 380VAC - 50 Hz electrical connection with neutral + ground, near the bench on which the machine is installed and terminating in a suitable protected fivepole socket equipped with an approved interlock switch
- Waste water drain system.

## 3) Water test kit

In order to enable you to check if your water supply is within the suggested ranges, La Marzocco machines will be equipped with two units of a quick water test kit (see image below) including 6 test-strips and instruction cards.



The parameters that you can test measure are Total Hardness, Total Iron, Free Chlorine,

Total Chlorine, pH & Total Alkalinity, Chlorides.

Ideally, you should perform a test on the water BEFORE the water treatment system and again AFTER the water system in order to verify if this is actually matching our suggested ranges.

Once the test has been performed, learn which treatment system is most appropriate for your particular water supply by filling out the online water calculator on our website: LA MARZOCCO WATER CALCULATOR ([http://www.lamarzocco.com/water\\_calculator/](http://www.lamarzocco.com/water_calculator/)).

## 4) Water supply connection

In order to connect the machine up to the water mains proceed according to the indications given in the chapter about Installation and in compliance with any local/national safety standards of the location in which the machine is being installed.

The equipment is to be installed with adequate backflow protection to comply with applicable federal, state, and local codes.

To guarantee a correct and safe functioning of the machine and to maintain an adequate performance level and a high quality of the beverages being brewed it is important that the incoming water be of a hardness greater than 7°f (70ppm, 4°d) and less than 10°f (100ppm, 6°d),



pH should be between 6.5 and 8.5 and the quantity of chlorides be less than 50mg/l . Respecting these values allows the machine to operate at maximum efficiency. If these parameters are not present, a specific filtration device should be installed, while always adhering to the local national standards in place regarding potable water.

Then connect the inlet of the water filter/softener (if present) to the drinking water supply using one of the supplied stainless steel braided hoses. Before connecting the filter to the water pump, flush the water supply line and the filtration system in order to eliminate any residual particles which could otherwise get stuck in taps or valves thus preventing them from working properly. Connect the water supply connection of the espresso machine to the water pump outlet using one of the supplied stainless steel braided hoses. Then connect the water pump inlet to the water filter/softener outlet (if present).

**Note:** The water pump is a differential pressure volumetric pump and has been designed to be used exclusively with cold water. Make sure that water is always present while the pump is operating, otherwise air can be introduced into the brew boiler causing an undesirable condition and the pump can be damaged.

## 5) Electrical connections

### a) Power supply cord

• This is the main power supply cable that provides power to the entire espresso machine. There are different types of cable based upon the electrical requirements of the espresso machine purchased:

- 200/220VAC 1 Phase 3-core cable with 4/6/10mm<sup>2</sup> cross section or AWG 12/10/8 for 2,3 4 group versions, secured to espresso machine via a strain relief connector

- 220VAC 3 Phase 4-core cable with 4 mm<sup>2</sup> cross section for 2 , 3 and 4 group versions, secured to espresso machine via a strain relief connector

- 380 VAC 3 Phase 5-core cable with 2.5mm<sup>2</sup> cross section for 2, 3 and 4 group versions, secured to espresso machine via a strain relief connector.

### b) Water pump motor power cord

This is the power supply for the water pump motor. The internal electronics will switch the pump motor on when needed.

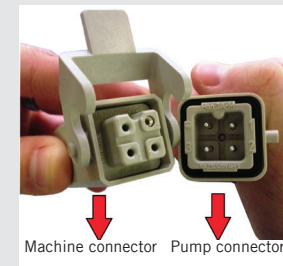
- 3-core cable with 1.5 mm<sup>2</sup> cross section or 3-core AWG 16 (for UL version) secured to espresso machine via a strain relief connector.

### c) Quick connection between the water pump and the espresso coffee machine

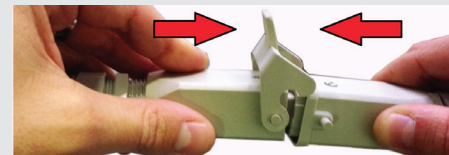
The electrical connection must be made

through the use of the connectors, as shown in the following figures:

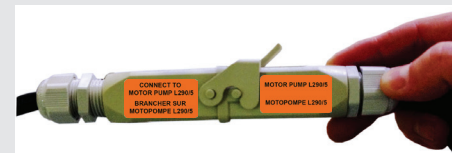
- View of the connectors;



- Cable connection;



- Cable tightening;



### 6) Waste water drain connection

The espresso machine drain is to be connected by means of the included reinforced plastic tubing. Connect one end of the reinforced plastic tubing to the drain hose connection on the left side of the espresso machine, secure with included hose clamp. Connect the other end to a suitable waste water collection system.

In case such a system is not available, drained liquids may be collected in a suitable bucket and any necessary drain pipe extensions shall be made using steel-lined PVC tubing and suitable hose clamps.

Water specifications table

		Min.	Max.
T.D.S.	ppm	90	150
Total Hardness	ppm	70	100
Total Iron (Fe <sup>+2</sup> /Fe <sup>+3</sup> )	ppm	0	0,02
Free Chlorine (Cl <sub>2</sub> )	ppm	0	0,05
Total Chlorine (Cl <sub>2</sub> )	ppm	0	0,1
pH	value	6,5	8,5
Alkalinity	ppm	40	80
Chloride (Cl <sup>-</sup> )	ppm	not more	50

**N.B.:** Test water quality (the warranty is void if water parameters are not within the range specified in the section "installation")

## 4. Machine Operation and Coffee Preparation

### CAUTION

Never remove the filter holder when water is being delivered. This operation can be extremely dangerous since the high pressure built-up inside the blind filter would spray out hot and slightly caustic water, which may cause severe burns. The Coffee Boiler contains water at elevated temperature. Water temperature over 125°F / 52°C can cause severe burns instantly or death from scalding.

### WARNING

The machine must not be dipped in, nor splashed with, water in order to clean it. For cleaning operations, please follow the instructions listed below very carefully.

### WARNING

This machine is designed only for preparing coffee and hot drinks.

#### IMPORTANT

To improve the flavor of the espresso, the temperature of the water in the coffee boiler and therefore of the groups may eventually be raised or lowered via the digital display (please consult the Software Programming Manual for detailed instructions).

#### 1) Starting the espresso machine

##### a) Filling the boilers with water

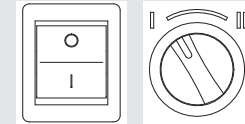
Once the installation procedures have been completed, it is necessary to fill the boiler tanks with water. Complete the following procedure to properly fill the boiler tanks:

##### • Coffee boiler

The water flows inside the coffee boiler directly, as soon as the water system and purifier taps (if present) are opened. Since the inflow of water will compress the air in the boiler, it will be necessary to remove or “bleed” the air from the coffee boilers. All air must be removed in order to completely “saturate” the coffee boiler/

group assemblies.

To remove the air from the boiler, or “bleed the groups”, it will be necessary to activate the tap lever until water flows from the group with the module in stand by mode (main switch in position I, selector in position I):

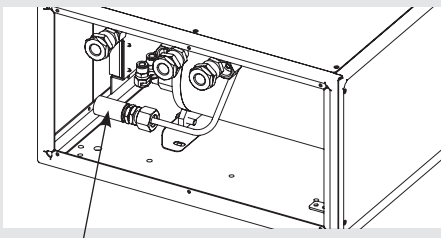


Repeat this procedure on all tap(s).

The installation is now complete and the espresso machine should be heating to operating temperatures.

#### 2) Waiting for the Espresso Machine to Heat to Operating Temperature

During this time, it may happen that the pointer of the coffee boiler pressure reaches as high as 14-15 bar. This may happen anytime that the heating element is in the “on” condition. In this case, it is necessary to adjust the expansion valve (see the picture below about the three coffee boiler expansion valves) in such a way that the pressure never exceeds 13 bar.



Expansion Valve

In normal operating conditions, the coffee boiler pressure transducer, while brewing, can read anywhere from 0-12 bar when brewing.

### 3) Brewing after first installation

Once the first installation procedures are finished, before proceeding with brewing coffee, hot water and steam, please follow these steps:

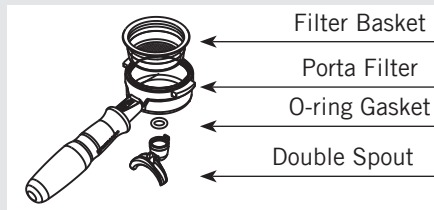
- Engage the portafilters by inserting them into each group, brew water through each group for at least two minutes.
- Turn on the hot water valve for the time necessary to allow the following quantities of water to be brewed:
  - At least 1 liter for a 1/2 group machine

### 4) Installing the portafilters

Install the portafilter(s) by inserting them into the group and rotate the handle from left to right. When the portafilters are

inserted properly, you can press any of brew buttons to start the flow of water through the portafilter. You should allow hot water to pass through the empty portafilter(s) for a few seconds each time, in order to preheat the portafilter.

**Note:** It is important to leave the portafilters installed in the espresso machine when not in use. The portafilter must remain heated for the brew process to function correctly.



### 5) Brewing coffee

Now you can brew an espresso. Disengage one of the portafilters, fill the filter with ground coffee, tamp the ground coffee with the tamper supplied (exerting a force of 20 kg) and re-engage the portafilter to the group. Use the tap lever to begin the brewing process.

**Note:** Some baristas believe it is important to press the brewing device prior to installing the portafilter to allow the water to flush any remaining coffee oils and

particles from the group. Some also flush just after brewing coffee for the same reason. Please experiment to find the best possible procedure for you.

### 6) Water pump

Whenever you are brewing coffee, and you can adjust the pump pressure by turning the by-pass screw (below the plug located on the side to which the pump power supply is connected) clockwise to increase and counter-clockwise to reduce pressure. Adjust pressure only when at least one group is brewing coffee.

**Note:** When the heating element in the coffee boiler is energized, the water will expand increasing the start-up pressure. Once the maximum pressure is reached, the expansion (safety) valve should start working by discharging a few drops of water, in order to prevent such pressure from exceeding 11-12 bar.

In case the pressure exceeds 12 bar, you must adjust the expansion valve by unscrewing the cap slightly. If this is not sufficient, remove the valve and clear away any calcium deposits. This remedy is valid also in case the valve remains open in the drain position (i.e. the pressure cannot increase to 8 bar approx.).

### 7) General notes for coffee preparation

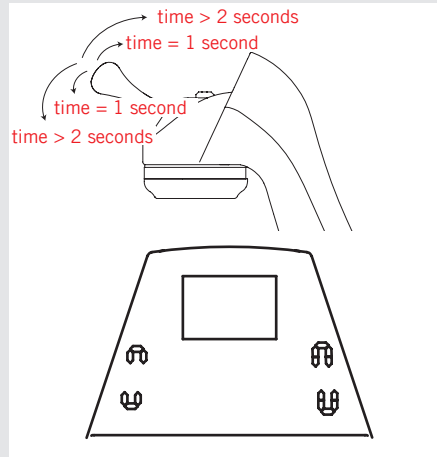
The portafilters must remain heated since they are at the lowest position of the

group itself, and they are partially isolated due to the rubber gasket between them. This can be accomplished by leaving the portafilters installed in the machine when not in use. The portafilters may also be actively heated. This procedure may be carried out by brewing some hot water through the portafilter then turning off the water flow, before making coffee.

It is important to remember that coffee left over in the filters must be removed only when you need to prepare another cup, and only at that time should you place a new dose of ground coffee in the filter.

The size of the coffee granules is extremely important in preparing a good cup of coffee, other than the type of coffee mix used, quite obviously. The ideal grinding can be determined by making various coffees using the amount of ground coffee that you would normally use for each cup (we recommend at least 6-7g). The best grinding is that which allows coffee to flow out from the filter holder spouts neither too slowly (drop by drop) nor too quickly (quick light brown flow). A general rule is that a double dose should dispense approximately 25cc or 2 fluid oz. of espresso in approximately 25 seconds.

## 8) Dispensing Operations



The Modbar espresso tap is able to command multiple functions using a single handle.

We do this by momentarily moving the tap handle in either the up or down position. It is possible to set four distinct operations between seven available operations by the module keypad.

### Short up

The tap handle is raised and immediately allowed to return to the resting position

### Short down

The tap handle is lowered and immediately

allowed to return to the resting position

### Long up

The tap handle is raised and held for 2 seconds before being allowed to return to the resting position

### Long down

The tap handle is lowered and held for 2 seconds before being allowed to return to the resting position

### Seven operations available:

- Dose 1;
- Dose 2;
- Dose 3;
- Dose 4;
- Continuous Operations;
- Rinsing;
- Cleaning cycle.

### Volumetric Operations (Dose 1, Dose 2, Dose 3, Dose 4)

Volumetric mode dispenses water until a preset amount of water is delivered, at which point the machine automatically ends the extraction.

The handle back to Position 2 to dispense at the programmed MEp and/or return the handle to Position 1 to cease dispensing.

**Continuous Operations**

Continuous mode dispenses water until the barista terminates the extraction by again momentarily moving the tap handle.

**Rinsing**

This operation activates the rinse cycle.

**Cleaning cycle**

The Modbar also has integrated cleaning/back flushing cycle functionality built in.

## 5. Maintenance and Periodic Cleaning Operations

**WARNING**  
Jets of water should not be used to clean the machine, nor should it be placed where water jets are used.

**WARNING**  
The machine must be installed so that qualified technical personnel can easily access it for eventual maintenance.

**WARNING**  
Do not remove the filter holder while relative group is brewing hot liquids.  
The Coffee Boiler contains water at elevated temperature. Water temperature over 125°F / 52°C can cause severe burns instantly or death from scalding.

**WARNING**  
This machine is for professional use only and should be installed in locations where its use and maintenance is restricted to trained personnel.

**WARNING**  
The machine must not be dipped in, nor splashed with, water in order to clean it. For cleaning operations, please follow the instructions listed below very carefully.

**WARNING**  
If the above-mentioned instructions are not adhered to the manufacturer cannot be held responsible for damage to persons or things.

**WARNING**  
The machine is intended to be permanently connected to fixed wiring, and it is advisable that a residual current device (RCD) with a rated residual operating current not exceeding 30mA is installed.

**WARNING**  
In order to prevent cracks or leakage: do not store or install the coffee machine in places where temperature may cause water in boiler or hydraulic system to freeze.

### General service/maintenance safety guidelines

- Before performing any maintenance and/or cleaning operations, turn the main power switch to the OFF position and disconnect the machine from the power source by unplugging the cord or by switching off the relative circuit breaker. For any cleaning operations, follow exclusively the instructions contained in the manual.
- Always use care when performing maintenance, as the equipment may

be hot. We recommend allowing the equipment to fully cool before performing any maintenance procedures.

#### 1) Cleaning groups and drain wells

- Put a tablespoon of detergent powder for coffee machines into the blind filter, supplied with the machine, and tighten it onto the group you want to clean by using a normal filter holder.
- Move the Tap Lever on the chosen position for cleaning and cycle will be activated on each group.
- Rinse the group using a normal filter by running hot water through it several times.

#### 2) Cleaning filters

- Put 2 or 3 teaspoons of detergent powder for coffee machines in about 1/2 a litre of water inside a heat-resistant container and boil.
- Dip filters in the boiled solution and leave them fully submerged for about 30 minutes.
- Rinse thoroughly with clean water and run hot water through one group several times with the filters in place.
- Make one cup of coffee and discard in order to remove any unpleasant flavor.

#### 3) Cleaning filter holders (portafilters)

Using the proper cleaning tool (brush) wash the filter holders under hot water,

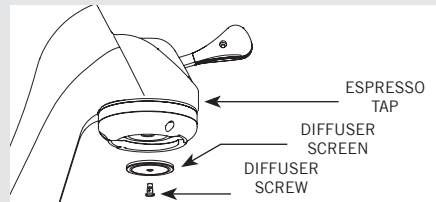
a neutral detergent may also be used. For extraordinary cleaning see the Portafilter Manual.

#### 4) Cleaning the drain collector

Remove the drain tray grill at least twice a week and clean. Remove the drain box cover panel once a week and clean. Inspect and clean also the drain box and remove any leftover grounds.

#### 5) Cleaning the body

Wipe the surfaces with a soft, non abrasive cloth in the direction of the glazing marks, if any. Do not use any alcohol or solvents whatsoever on painted or imprinted parts in order not to damage them.



#### 6) Cleaning the diffuser screen

- Due to filter holder discharge operations (subsequent to coffee brewing), a certain amount of coffee grounds may slowly build-up on and obstruct, even partially, the diffuser screen. To clean it, you must first remove it by unscrewing the diffuser

screw.

- Put 2 or 3 teaspoons of cleaning detergent for coffee machines in about 1/2 a litre of water inside a heat-resistant container and boil.
- Place the diffuser screen(s) and diffuser screw(s) in the solution and leave them fully submerged for about 30 minutes. Rinse thoroughly with clean water. Install and run hot water through each group several times with the screen installed.

#### 7) Water Filter/Softener

Please see the documentation accompanying the water filter/softener for proper operating and cleaning instructions.

#### 8) Back flushing

Back flushing must be performed on a regular basis to ensure the proper function and cleanliness of the espresso system. We recommend following this procedure on a nightly basis.

- Put one scoop of detergent Puro Caff into a blind filter, and insert it into the group to be cleaned. (Use the amount of detergent recommended on the package)
- Activate the cleaning cycle by toggling the handle on the assigned position.
- The tap screen will display “@@”. During this time it will automatically cycle the pump on and off per a typical cleaning cycle.



- When finished, run a steady stream of water through the brewhead.
- Re-insert the the blind filter and run the automatic cleaning cycle once more, this time removing the filter during the pauses, dumping water from the filter and re-inserting the filter before the cycle re-engages the flow of water. (If water begins to flow before you have a chance to insert the filter, wait until the cycle pauses again to avoid the risk of being splashed and burned by hot water)
- Discard the first shot of espresso before resuming normal service to “season” the brewhead.

#### **IMPORTANT**

If the machine has not been used for more than 8 hours or, in any case, after long periods of being idle, in order to use the machine to its full potential it is necessary to perform some cleaning cycles before brewing beverages as follows:

- **Groups:** with the portafilters engaged in the groups brew water through each for at least two minutes

If the machine is not going to be used for long periods of time, it is advisable to follow these safety indications:

- Disconnect the machine from the water mains or interrupt the water connection via a mains tap.
- Disconnect the machine from the electrical mains.

## 6. De-commissioning and Demolition

### 1) De-commissioning and demolition

Start by setting the main switch to the “0” or OFF position.

#### Disconnecting from the power outlet

Disconnect the espresso machine from the electrical network by switching off the associated circuit breaker or circuit protection device. Remove the power supply cord from the power connection. Remove the Pump Motor Power Cord from the water pump motor.

#### Disconnecting from the water system

Shut off the water supply by closing the specific tap located upstream of the water filter/softener inlet. Disconnect the water pipe at the water filter/softener inlet.

Remove the hose connecting the espresso machine to the water pump. Remove the reinforced plastic tubing on the drain connection.

At this point, the machine may be removed from the bar, being very careful not to drop it or squash your fingers.

The machine is made out of various materials and therefore, if you do not intend to put it back in service, it must be taken to a special disposal company which will select the materials which can be recycled and discard the others.

Current regulations make it illegal to discard such machine by leaving it on public grounds or on any private property.

#### Recycling notice: Warning for the protection of the environment:

Used Electrical and electronic waste contains hazardous but also valuable and scarce materials which should be recovered and recycled properly. We kindly ask that you contribute to the protection of the environment and natural resources by delivering used equipment to the relevant recycling locations if such locations are available in your country.



## 7. Mandatory Maintenance and Check-up Operations

These operations are in addition to the Maintenance and Periodic Cleaning Operations as specified in Chapter 6.

The following maintenance and check-up operations could be carried out by a qualified technician.

The time required for the periodic maintenance is determined by the quantity of daily work and/or coffee consumption.

**N.B. These periodic maintenance operations are not covered by warranty.**

### EVERY THREE/FOUR MONTHS

- Replace group gaskets
- Replace diffuser screens
- Check brew temperature
- Check brew pressure
- Check/note water hardness  
(Water quality must be within the range of parameters specified in the chapter on Installation, otherwise warranty is voided)
- Inspect solenoid valve (s)
- Inspect plumbing for leaks or clogs
- Check all switches for proper operation
- Check filter baskets

### EVERY YEAR (in addition to the above)

- Replace portafilter baskets
- Inspect electrical wiring condition
- Inspect boilers safety switches
- Inspect electrical wiring condition
- Remove and clean/inspect boiler temperature probes
- Accurate control of the tightness at 2,4Nm of each cable on the terminal block.

### EVERY 3 YEARS (in addition to the above)

- Check the condition of the inside of boilers and if necessary rinse out with a proper cleaning product allowed for food and beverage appliances.

## 8. Precision Scale

### 1) Use precautions

The weighing system in static conditions (\*) has a rated accuracy of +/- 0.5g.

For correct operation, make sure that:

- Maintenance is performed properly, by an authorized person and in the manner prescribed in this manual;
- Please use the machine according to the instructions specified in this manual;
- Please make sure the machine is installed on a level and firm counter;
- Please make sure the power supply is stable and without electrical noises.

The weighing stage is a inherently delicate, in fact it is affected by:

- Vibration of the bench caused for example by other devices;
- Machine vibrations caused, for example, by the use of the adjacent group.

(\*) Static weighing means weighing an object whose weight is fixed during the entire weighing.

The machine is not a weighing device certified for legal weighing.



- The weighing system is a precision device that requires a lot of caution in terms of use, cleaning and maintenance.

- Should the main grid or tray be removed, ensure not to hit the load cells during the disassembly and reassembly operations.

#### For two Taps with precision scales users only:

- Use only original La Marzocco filters and filter holders, identified by the following symbol:



- Use only filter holders with double spout;

- Do not place on the scale objects weighing more than 1kg;

- Never load more than 1 kg, to prevent any damage to the scales;

- Use the high precision scale with care, avoid shocks, falling objects and sudden load peaks;

- Any object to be weighed must be placed

correctly on the scales grid.

### 2) Cleaning

- The cleaning of the "individual grids" must be performed with care, without overloading the cells;

- For proper weighing of the filter holder, make sure the grid is clean and dry;

- To avoid contact with dirt before placing the filter holder, clean and dry the grid;

- Please be careful during the cleaning procedures to avoid the water dripping on the scale and its electrical components.




# 9. Software Programming Guide

# “Barista” Programming

GH 105.0°C 61  
 DT 95.5°C 0.0

page 38

 Press and hold the T3 button for 5 seconds.

Group Dose  
 Settings

page 44



Coffee Boiler  
 Settings

page 44



Scale  
 Configuration

page 44







Temperature  
 94.5

page 44



CB Settings  
 Exit

page 44

Dose Settings  
 Reset

page 44



Group 1 Dose  
 Settings

page 44



Group Dose  
 Exit

page 44

Scale ↑ Short  
 Stop 1.5s early

page 44



Scale ↑ Long  
 Stop 1.5s early

page 44

G1 Dose Mode  
 DOSE

page 44



↑ Short  
 DOSE

page 44

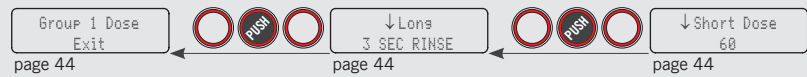
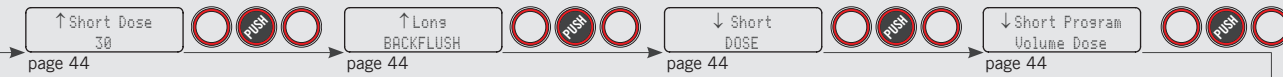
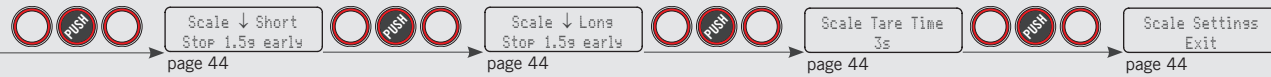
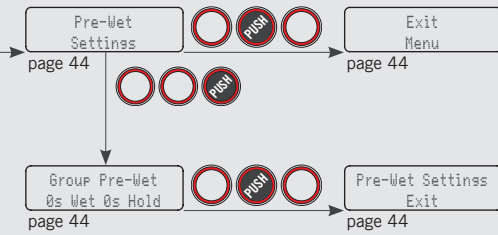


↑ Short Program  
 Volume Dose

page 44



# “Barista” Programming



## “Technical” Programming

GH 105.0°C 61  
OT 95.5°C 0.0

page 44



Press and hold the T3 button for 10 seconds.

Enter Password

page 44



Language  
ENGLISH

page 44



Temp Units  
CELSIUS

page 44



Name  
Modbar

page 44



Group Dose  
Settings

page 44



Exit  
Menu

page 44



Update Firmware

page 44



Reset  
Settings

page 44



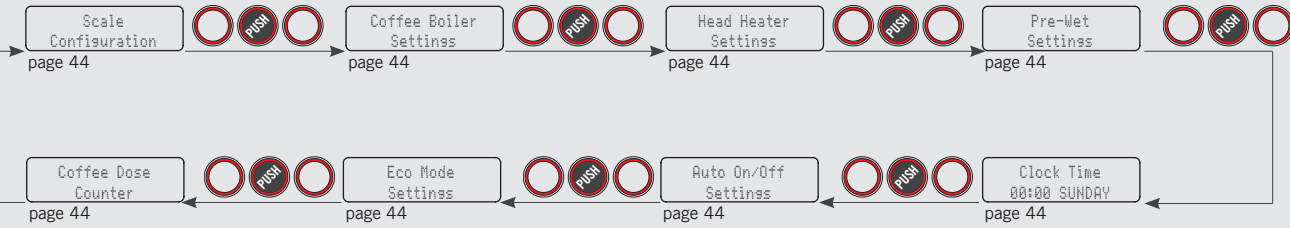
Filter Alarm  
Settings

page 44





## “Technical” Programming

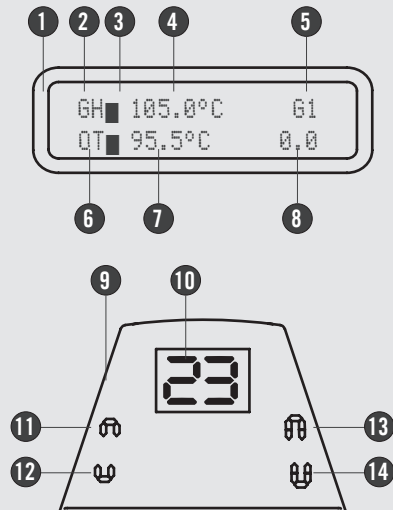


## Programming Introduction

Description:

- This espresso machine has a CPU and many configurable settings.
- Additionally, there are many feedback controls employed in this espresso machine to troubleshoot problems should they occur.
- The following is a brief introduction to the controls and display and how they interact with the operator.

### Digital Display

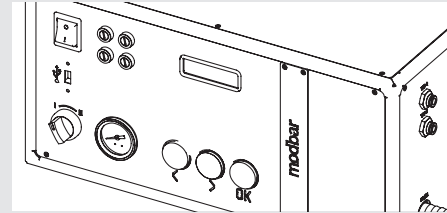
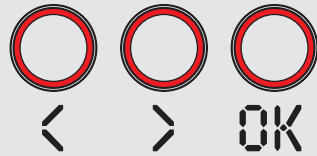


- |   |  |    |                     |
|---|--|----|---------------------|
| 1 | Digital display  | 8  | Pulses or mass      |
| 2 | Group head   | 9  | Digital display Tap |
| 3 | Heating indicator (on during heating, off when the temperature has been reached) | 10 | Timer               |
| 4 | Group head temperature   | 11 | Short up            |
| 5 | Group coffee boiler  | 12 | Short down          |
| 6 | Coffee boiler outlet   | 13 | Long up             |
| 7 | Coffee boiler temperature  | 14 | Long down           |

The digital display is a backlit display capable of displaying 2 lines of 16 characters. The display enables the operator to interact with the espresso machine to visibly change parameter values. The display also provides valuable information to the operator.

There are several warnings that can be displayed to alert the operator of an unusual condition or a fault. Additionally, simple messages are displayed alerting the operator that an action has been started or that a process needs to begin.

## Programming Keypad



The keypad has two functions. The first is for control of the espresso. The second is for programming individual software parameters. The programming of the individual parameters is possible only using the buttons in the group 1 (group starting from the left).

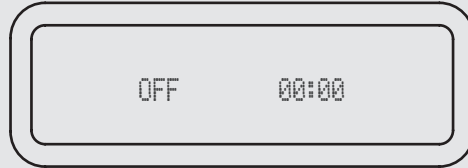
Button	Description
<	<p>This button is used to control the brewing of the single espresso. It is also used in the programming of the individual parameters such as the “back” button in the menu.</p> <p>For simplicity's sake in this manual it will be represented by this symbol &lt; with the name <b>T1</b>.</p>
>	<p>This button is used to control the brewing of the double espresso. It is also used in the programming of the individual parameters such as the “forward” button in the menu.</p> <p>For simplicity's sake in this manual it will be represented by this symbol &gt; with the name <b>T2</b>.</p>
OK	<p>This button is used for a continuous control of the brewing of the espresso. It is also used in the programming of the individual parameters such as the “enter” button in the menu.</p> <p>For simplicity's sake in this manual it will be represented by this symbol OK with the name <b>T3</b>.</p>

## Programming Keypad

Button	Description
<	Press and hold this button for 5 seconds to activate the Backflush function of Espresso Tap number 1.
>	Press and hold this button for 5 seconds to activate the Backflush function of Espresso Tap number 2 (if present).
OK	Press and hold this button for 5 seconds to enter the “Barista” programming level. No password is required for access.
OK	Press and hold this button for 10 seconds to enter the “Technical” programming level. Password is required for access.
>+OK	Press this key combination to exit from the programming mode and to return to normal parameters at any time.

## First Use Procedure

### Turning the Espresso Machine On







### Description

The following is the procedure to be followed for the first use of the espresso machine.

- Please follow the procedures carefully to avoid any damage to the espresso machine.

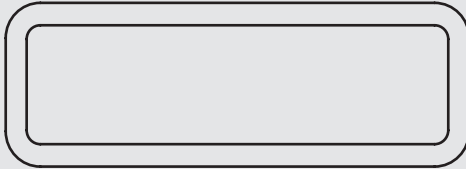
- Proceed checking for water connection to the espresso machine.
- Proceed making sure you have filled the boilers.

Display	Operating Procedure
	<p><b>1</b> Turn the Main Switch to the 1 position.</p>  
<p>Use Lever to Fill Boiler</p>	<p><b>2</b> To continue with the start up process, it will be necessary to activate the tap lever until water flows from the group, activate again the tap lever to stop the water flows.</p>
<p>OFF 00:00</p>	<p><b>3</b> </p>
<p>Are the Boilers Filled?</p> <p>6H 102.3 105.0 27.9C 61 263</p>	<p><b>4</b> To complete the start up process, press any button.</p>

**⚠ WARNING ⚠**  
HAZARDOUS VOLTAGE DISCONNECT FROM POWER SUPPLY BEFORE SERVICING

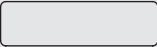


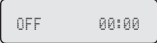
## Start Up Procedures

### Turning the Espresso Machine On -Standby Mode



#### Description

In this position, the module is in standby mode. When in standby mode, all operations function as normal, but no power is applied to the heating elements. This mode is used for priming the system upon installation, and can also be useful for some diagnostic applications.

Display	Operating Procedure
	<p><b>1</b> Turn the Main Switch to the 1 position.</p>  
	<p><b>2</b> The message shown to the left will be displayed when the espresso machine is switched on.</p> <p><b>NOTE:</b> Ensure all air is removed from the group prior to starting the espresso machine. This only needs to be completed once during the initial setup or when water is drained from the coffee boiler. Instructions for bleeding the groups of air can be found in the Installation Guide.</p>



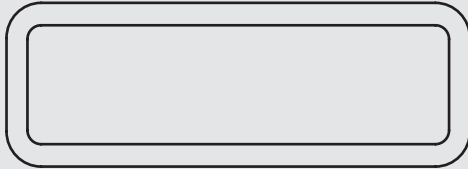
#### WARNING



HAZARDOUS VOLTAGE DISCONNECT FROM POWER  
SUPPLY BEFORE SERVICING

## Start Up Procedures

### Turning the Espresso Machine On

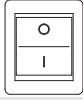



#### Description

The following is the procedure for turning on the power to the espresso machine.

- Please follow the procedures carefully to avoid any damage to the espresso machine.

- Proceed checking for water connection to the espresso machine.
- Proceed making sure you have filled the boilers.

Display	Operating Procedure
<div data-bbox="213 665 368 711" style="border: 1px solid black; width: 60px; height: 20px; margin-bottom: 10px;"></div> <div data-bbox="213 813 368 859" style="border: 1px solid black; padding: 2px;">                     GH 105.0°C 61                      OT 95.5°C 0.0                 </div>	<div data-bbox="402 668 419 698" style="font-size: 24px; font-weight: bold;">1</div> <div data-bbox="442 711 852 738" style="margin-left: 20px;">                     Turn the Main Switch to the 1 position.                 </div> <div data-bbox="919 642 1107 742" style="text-align: center; margin: 10px 0;">   </div> <div data-bbox="402 817 419 847" style="font-size: 24px; font-weight: bold; color: red;">2</div> <div data-bbox="442 777 1587 889" style="color: red; margin-left: 20px;">                     To complete the start up process, press any button. The screen shown to the left will be displayed. When the set temperature is reached, these rectangles turn off and all the lights of the buttons turn on (if enabled in the Barista menu). Now the machine is ready for use. During the normal operation of the machine, the flashing of the rectangles indicates the intermittent heating necessary for maintaining the temperature.                 </div>



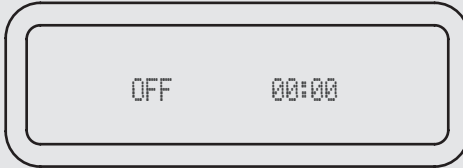
### WARNING



HAZARDOUS VOLTAGE DISCONNECT FROM POWER  
SUPPLY BEFORE SERVICING

## Shut Down Procedures

### Turning the Espresso Machine Off

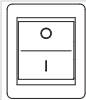


### Description

The following is the procedure for turning off power to the espresso machine.

- Please follow the procedures carefully to avoid any damage to the espresso machine.

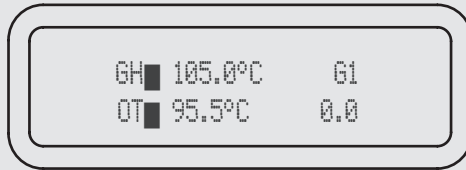
- This machine has two off settings. One setting turns off all of the components in the espresso machine and the other turns off power to the complete espresso machine.

Display	Operating Procedure
	<p><b>1</b> The following is the procedure for safely turning off the espresso machine.</p> <p><b>2</b> The message shown to the left will be displayed when the espresso machine is switched on.</p>
	<p><b>3</b> The message shown to the left will be displayed when the espresso machine is switched off.</p>
	<p>During servicing or other conditions that warrant it, the main switch should be turned to the 0 position.</p> <p>The espresso machine is off and display should be blank. It is important to follow this procedure when turning off the machine. Failure to do so can damage the electronics.</p> 



## Accessing Programming Mode

### Programming Mode



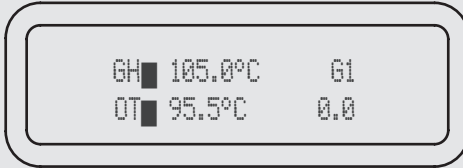
### Description

- To change the values of any parameter the operator must first enter into the programming mode.
- There are two levels within the programming mode that allow the programming of specific parameters.
- The two programming levels are as follows:
  - **Barista Programming** - The parameters contained within this level are ones the operator can change to affect the quality of the espresso. No password is required for access.

Display	Operating Procedure
	<b>Barista™ Programming Level</b>
	<p><b>1</b> While the espresso machine is on, press and hold the button T3 <b>OK</b>. After approximately 5 seconds the following display appears.</p>
	<p><b>2</b> This is the “Barista” programming level. To program the brewing amount for each button, to set the coffee boilers, the pre-infusion, and to enable/disable the resistance.</p>
	<p><b>3</b> To exit the programming mode, scroll to the exit menu, using the buttons T1 <b>&lt;</b> or T2 <b>&gt;</b>. Press the T3 <b>OK</b> button to confirm the exit, or press at the same time the buttons T2 and T3.</p>

## Accessing Programming Mode

### Programming Mode



### Description

- **Technical Programming** - The parameters contained within this level are ones the operator can change to affect the performance of the espresso machine. These parameters are set in the factory and their adjustment requires the intervention of a service technician. La Marzocco recommends that no changes are made at this level. The Technician Password is required for access.

Display	Operating Procedure
<div data-bbox="169 664 342 711" style="border: 1px solid black; padding: 2px; margin-bottom: 10px;">                     GH 105.0°C 61                      OT 95.5°C 0.0                 </div> <div data-bbox="169 826 342 873" style="border: 1px solid black; padding: 2px;">                     Enter Password                 </div>	<p style="text-align: center;"><b>Technical” Programming Level</b></p> <p><b>4</b> While the espresso machine is on, press and hold the button T3 <b>OK</b>. After approximately 10 seconds the following display appears.</p> <p style="color: red;">This is the “Technical” programming level. Enter the password and press the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to move between the available parameters, press the T3 button <b>OK</b> to confirm.</p> <p><b>5</b> <b>NOTE:</b> You must scroll to the exit menu to exit the programming mode, or press at the same time the buttons T2 and T3.</p>

## Cleaning Cycles



### Description

- This parameter allows the operator to carry out the washing of the coffee groups, in an automatic way, by running multiple cleaning cycles.
- This espresso machine has a group rinsing function (rinsing jets) integrated in the electronics.
- The rinsing procedure is provided to give the operator more flexibility and freedom with regard to this operation.

Display	Operating Procedure
	<p>When the espresso machine is on, to enable the washing procedure press and hold at the same time the buttons</p> <p><b>1</b> T1  and T3 .</p> <p>This activates the washing procedure of each group.</p> <p>When activated, the water pump comes into operation, and the electric valve of the specific group being washed will turn on and off the cycle. There are about 10 preset cycles with an interval of 4 seconds.</p> <p><b>2</b></p> <p><b>NOTE:</b> In order to properly rinse the groups, put a small amount of detergent in a blind portafilter basket and insert it in the group to be rinsed before activating the rinsing process.</p>

**WARNING**

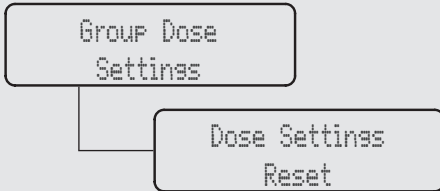
MOST DETERGENTS CAUSE FOAMING DURING THE CLEANING PROCESS. THIS FOAM COLLECTS AT THE DRAIN BOX AND CAN PROHIBIT WASTE WATER FROM DRAINING PROPERLY.  
RINSING MULTIPLE GROUPS SIMULTANEOUSLY COULD CAUSE THE DRAIN BOX TO OVERFLOW.

## “Barista” Programming

### Program Dose

### Description

- This parameter allows the operator to cancel all the doses set.



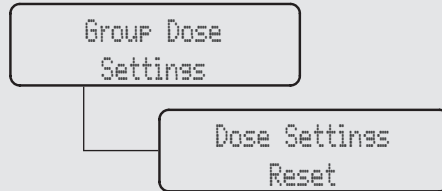
Display	Operating Procedure
	<b>1</b> When the espresso machine is turned on, press and hold the T3 button <b>OK</b> to access the “Barista” programming. After about 5 seconds the following screen is displayed.
	<b>2</b> Press the T3 button <b>OK</b> to enter the doses programming procedure.
	<b>3</b> Press the button T3 <b>OK</b> to confirm the procedure
	<b>4</b> Now all settings are cleared.

## “Barista” Programming

### Program Dose

### Description

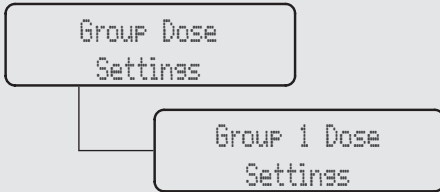
- This parameter allows the operator to cancel all the doses set.



Display	Operating Procedure
<div data-bbox="213 668 366 711" style="border: 1px solid black; padding: 2px; width: fit-content;">Group Dose Exit</div>	<p><b>5</b> Press T1 &lt; or T2 &gt; until the display shows the exit menu, press the T3 button <b>OK</b> to return to the “Barista” programming.</p> <p><b>6</b> Press T1 &lt; or T2 &gt; to continue with the programming of the other parameters.</p>
<div data-bbox="213 929 366 972" style="border: 1px solid black; padding: 2px; width: fit-content;">GH 105.0°C 61 OT 95.5°C 0.0</div>	<p><b>7</b> Press T2 &gt; and T3 <b>OK</b> at the same time to exit the programming mode and return to the normal use of the espresso machine.</p>

## “Barista” Programming

### Program Dose



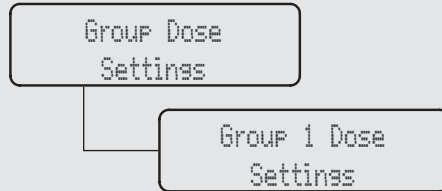
### Description

- This parameter allows the operator to program the amount of coffee (brewing amount) for each Selection Indicator.
- The brewing amount can be set in terms of time (sec. ) or pulses. This number refers to the number of pulses that the flowmeter sends to the CPU.
- Once programmed, the Selection Indicator remains lighted.
- It is possible to set the dose for both a short and a long shot on the same Selection Indicator.

Display	Operating Procedure
	<b>1</b> When the espresso machine is turned on, press and hold the T3 button <b>OK</b> to access the “Barista” programming. After about 5 seconds the following screen is displayed.
	<b>2</b> Move between the parameters using the buttons T1 <b>&lt;</b> or T2 <b>&gt;</b> until the display shows:
	<b>3</b> Press the T3 button <b>OK</b> to start the doses programming procedure.
	<b>4</b> Press the T3 button <b>OK</b> to access the menu, then navigate using T1 <b>&lt;</b> and T2 <b>&gt;</b> to choose between <b>PULSES</b> and <b>MASS</b> .

## “Barista” Programming

### Program Dose



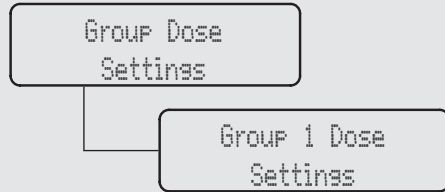
### Description

- This parameter allows the operator to program the amount of coffee (brewing amount) for each Selection Indicator.
- The brewing amount can be set in terms of time (sec. ) or pulses. This number refers to the number of pulses that the flowmeter sends to the CPU.
- Once programmed, the Selection Indicator remains lighted.
- It is possible to set the dose for both a short and a long shot on the same Selection Indicator.

Display	Operating Procedure
↑ Short DOSE	<b>5</b> Press the T3 button <b>OK</b> to access the menu, then navigate using T1 <b>&lt;</b> and T2 <b>&gt;</b> to choose between <b>DOSE</b> , <b>BACKFLUSH</b> , <b>3 SEC RINSE</b> and <b>CONTINUOUS</b> .
↑ Short Program Volume Dose	<b>6</b> Press the T3 button <b>OK</b> to start the doses programming procedure.
Press Enter To Exit	<b>7</b> To set the brewing time of a short shot, it will be necessary to activate the tap lever until water flows from the group, activate again the tap lever to stop and store the desired dose.
Press b To Stop 10 Pulses	
61B1 Saved 10 Pulses	

## “Barista” Programming

### Program Dose



### Description

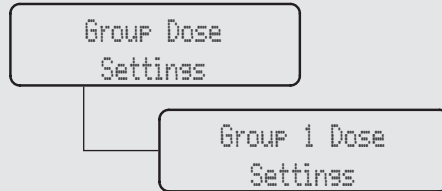
- This parameter allows the operator to program the amount of coffee (brewing amount) for each Selection Indicator.
- The brewing amount can be set in terms of time (sec. ) or pulses. This number refers to the number of pulses that the flowmeter sends to the CPU.
- Once programmed, the Selection Indicator remains lighted.
- It is possible to set the dose for both a short and a long shot on the same Selection Indicator.

Display	Operating Procedure
↑ Short Dose 30	<b>8</b> Press the button T1 < or T2 > to view the dose. Pressing the button T3 OK, the dose value will blink. Use the button T1 < or T2 > to change the value, press the button T3 OK to confirm the desired value.
↑ Long BACKFLUSH	<b>9</b> Press the T3 button OK to access the menu, then navigate using T1 < and T2 > to choose between DOSE, BACKFLUSH, 3 SEC RINSE and CONTINUOUS.
↓ Short DOSE	<b>10</b> Press the T3 button OK to access the menu, then navigate using T1 < and T2 > to choose between DOSE, BACKFLUSH, 3 SEC RINSE and CONTINUOUS.
↓ Short Program Volume Dose	<b>11</b> Press the T3 button OK to start the doses programming procedure.



## “Barista” Programming

### Program Dose



### Description

- This parameter allows the operator to program the amount of coffee (brewing amount) for each Selection Indicator.
- The brewing amount can be set in terms of time (sec. ) or pulses. This number refers to the number of pulses that the flowmeter sends to the CPU.
- Once programmed, the Selection Indicator remains lighted.
- It is possible to set the dose for both a short and a long shot on the same Selection Indicator.

Display	Operating Procedure
Press Enter To Exit  Press b To Stop 10 Pulses  61B1 Saved 10 Pulses	<b>12</b> To set the brewing time of a short shot, it will be necessary to activate the tap lever until water flows from the group, activate again the tap lever to stop and store the desired dose.
↓ Short Dose 60	<b>13</b> Press the button T1 < or T2 > to view the dose. Pressing the button T3 OK, the dose value will blink. Use the button T1 < or T2 > to change the value, press the button T3 OK to confirm the desired value.
↓ Long 3 SEC RINSE	<b>14</b> Press the T3 button OK to access the menu, then navigate using T1 < and T2 > to choose between DOSE, BACKFLUSH, 3 SEC RINSE and CONTINUOUS.

## “Barista” Programming

### Program Dose

Group Dose  
Settings

Group 1 Dose  
Settings

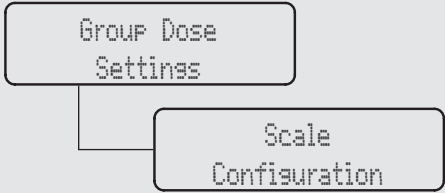
### Description

- This parameter allows the operator to program the amount of coffee (brewing amount) for each Selection Indicator.
- The brewing amount can be set in terms of time (sec. ) or pulses. This number refers to the number of pulses that the flowmeter sends to the CPU.
- Once programmed, the Selection Indicator remains lighted.
- It is possible to set the dose for both a short and a long shot on the same Selection Indicator.

Display	Operating Procedure
<p>Group 1 Dose Exit</p>	<p><b>15</b> Press T1 &lt; or T2 &gt; until the display shows the exit menu, press the T3 button <b>OK</b> to return to the “Barista” programming.</p>
	<p><b>16</b> Press T1 &lt; or T2 &gt; to continue with the programming of the other parameters.</p>
<p>GH 105.0°C 61 OT 95.5°C 0.0</p>	<p><b>17</b> Press T2 &gt; and T3 <b>OK</b> at the same time to exit the programming mode and return to the normal use of the espresso machine.</p>

(only on Precision Scale espresso machine models) **“Barista” Programming**

**Scale Configuration**



**Description**

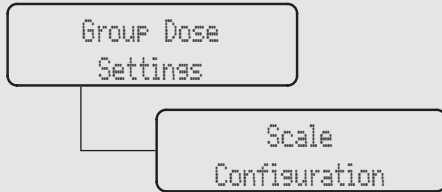
- This parameter allows the operator to view and manually change each dose for each Selection Indicator.
- For greater accuracy and consistency of the doses, it is recommended that you set each Selection Indicator.
- The dose can be set by pulses or by mass (weight).

Display	Operating Procedure
	<p><b>1</b> When the espresso machine is turned on, press and hold the T3 button <b>OK</b> to access the “Barista” programming. After about 5 seconds the following screen is displayed.</p>
	<p><b>2</b> Move between the parameters using the buttons T1 <b>&lt;</b> or T2 <b>&gt;</b> until the display shows:</p>
	<p><b>3</b> Press the T3 button <b>OK</b> to start the doses programming procedure.</p>
	<p><b>4</b> Press the T3 button <b>OK</b> to access the menu, the dose value will blink. Use the button T1 <b>&lt;</b> or T2 <b>&gt;</b> to change the value, press the button T3 <b>OK</b> to confirm the desired value</p>

## “Barista” Programming (only on Precision Scale espresso machine models)

### Scale Configuration

### Description

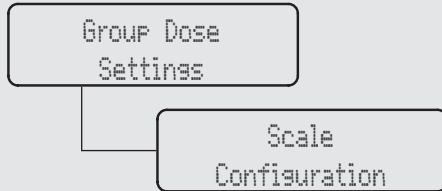


- This parameter allows the operator to view and manually change each dose for each Selection Indicator.
- For greater accuracy and consistency of the doses, it is recommended that you set each Selection Indicator.
- The dose can be set by pulses or by mass (weight).

Display	Operating Procedure
Scale ↑ Long Stop 1.5s early	5 Press the T3 button <b>OK</b> to access the menu, the dose value will blink. Use the button T1 <b>&lt;</b> or T2 <b>&gt;</b> to change the value, press the button T3 <b>OK</b> to confirm the desired value
Scale ↓ Short Stop 1.5s early	6 Press the T3 button <b>OK</b> to access the menu, the dose value will blink. Use the button T1 <b>&lt;</b> or T2 <b>&gt;</b> to change the value, press the button T3 <b>OK</b> to confirm the desired value
Scale ↓ Long Stop 1.5s early	6 Press the T3 button <b>OK</b> to access the menu, the dose value will blink. Use the button T1 <b>&lt;</b> or T2 <b>&gt;</b> to change the value, press the button T3 <b>OK</b> to confirm the desired value
Scale Tare Time 3s	7 Press the T3 button <b>OK</b> to enter the menu, navigate the parameters using the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to set the desired value. This parameter is common to all groups.

(only on Precision Scale espresso machine models) **“Barista” Programming**

## Scale Configuration



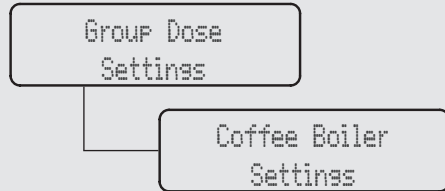
### Description

- This parameter allows the operator to view and manually change each dose for each Selection Indicator.
- For greater accuracy and consistency of the doses, it is recommended that you set each Selection Indicator.
- The dose can be set by pulses or by mass (weight).

Display	Operating Procedure
<div style="border: 1px solid black; padding: 2px; width: fit-content; margin-bottom: 10px;">Scale Settings Exit</div>	<p><b>8</b> Press T1 &lt; or T2 &gt; until the display shows the exit menu, press the T3 button <b>OK</b> to return to the “Barista” programming.</p>
	<p><b>9</b> Press T1 &lt; or T2 &gt; to continue with the programming of the other parameters.</p>
<div style="border: 1px solid black; padding: 2px; width: fit-content;">           GH 105.0°C 61            OT 95.5°C 0.0         </div>	<p><b>10</b> Press T2 &gt; and T3 <b>OK</b> at the same time to exit the programming mode and return to the normal use of the espresso machine.</p>

## “Barista” Programming

### Coffee Boiler



### Description

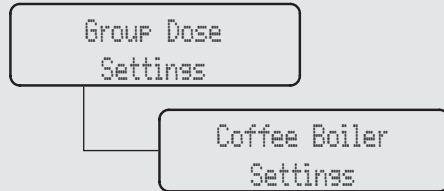
- This parameter allows the operator to program the coffee boiler temperature. Each group can have a different programming.
- For an espresso machine composed of 1 group you can only set the coffee boiler

1, while for an espresso machine with 2 groups you can also set the coffee boiler 2.

Display	Operating Procedure
	<ol style="list-style-type: none"> <li>1 When the espresso machine is turned on, press and hold the T3 button <b>OK</b> to access the “Barista” programming. After about 5 seconds the following screen is displayed.</li> <li>2 Move between the parameters using the buttons T1 <b>&lt;</b> or T2 <b>&gt;</b> until the display shows:</li> <li>3 Press the T3 button <b>OK</b> to enter the menu.</li> <li>4 Press the T3 button <b>OK</b> to enter the menu, move with the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to set the desired temperature, press the T3 button <b>OK</b> to confirm the value. <b>The temperature indicated on the left is the actual temperature of the group while the temperature on the right is the set temperature.</b></li> </ol>

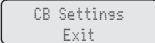

## “Barista” Programming

### Coffee Boiler



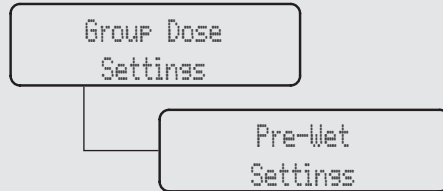
#### Description

- This parameter allows the operator to program the coffee boiler temperature. Each group can have a different programming.
- For an espresso machine composed of 1 group you can only set the coffee boiler 1, while for an espresso machine with 2 groups you can also set the coffee boiler 2.

Display	Operating Procedure
	<p><b>5</b> Press T1 &lt; or T2 &gt; until the display shows the exit menu, press the T3 button <b>OK</b> to return to the “Barista” programming.</p> <p><b>6</b> Press T1 &lt; or T2 &gt; to continue with the programming of the other parameters.</p>
	<p><b>7</b> Press T2 &gt; and T3 <b>OK</b> at the same time to exit the programming mode and return to the normal use of the espresso machine.</p>

## “Barista” Programming

### Pre-Infusion or Pre-Brewing



### Description

- This parameter allows the operator to program the time of pre-brewing of water with the coffee. Each group can have a different programming.
- Pre-brewing has only two values to be adjusted for each group. The time (in seconds) for which the brewing valve is open during the pre-brewing cycle and the time (in seconds) for which the brewing valve is closed during the

pre-brewing cycle; during this time the pump is active. Once the pre-brewing cycle is over, the normal brewing cycle will continue until the end.

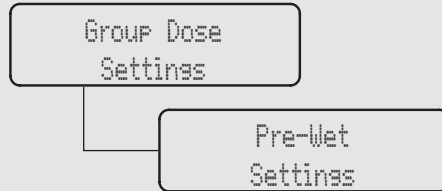
- For an espresso machine composed of two groups, they are identified as Group 1 and Group 2.

Display	Operating Procedure
	<b>1</b> When the espresso machine is turned on, press and hold the T3 button <b>OK</b> to access the “Barista” programming. After about 5 seconds the following screen is displayed.
	<b>2</b> Move between the parameters using the buttons T1 <b>&lt;</b> or T2 <b>&gt;</b> until the display shows:
	<b>3</b> Press the T3 button <b>OK</b> to enter the menu.
	<b>4</b> Press T1 <b>&lt;</b> or T2 <b>&gt;</b> to select the group whose parameters you want to set. By pressing the T3 button <b>OK</b> the first value will blink. Use the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to reach the value that you want to set, press T3 <b>OK</b> to confirm. Repeat this operation to set the second value.



## “Barista” Programming

### Pre-Infusion or Pre-Brewing



### Description

- This parameter allows the operator to program the time of pre-brewing of water with the coffee.
- The time (in seconds) for which the brewing valve is open during the pre-brewing cycle and the time (in seconds) for which the brewing valve is closed during the pre-brewing cycle; during this time the pump is active. Once the pre-brewing cycle is over, the normal

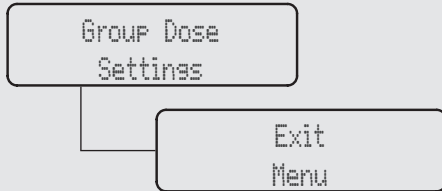
brewing cycle will continue until the end.

- For an espresso machine composed of two groups, they are identified as Group 1 and Group 2.

Display	Operating Procedure
<div data-bbox="213 668 366 711" style="border: 1px solid black; padding: 2px; width: fit-content;">Pre-Wet Settings Exit</div>	<p><b>5</b> Press T1 &lt; or T2 &gt; until the display shows the exit menu, press the T3 button <b>OK</b> to return to the “Barista” programming.</p> <p><b>6</b> Press T1 &lt; or T2 &gt; to continue with the programming of the other parameters.</p>
<div data-bbox="213 929 366 972" style="border: 1px solid black; padding: 2px; width: fit-content;">GH 105.0°C 61 OT 95.5°C 0.0</div>	<p><b>7</b> Press T2 &gt; and T3 <b>OK</b> at the same time to exit the programming mode and return to the normal use of the espresso machine.</p>

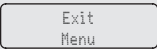

## “Barista” Programming

### Exit Menu



### Description

- This parameter allows the operator to exit the “Barista” programming and return to the normal use of the espresso machine.

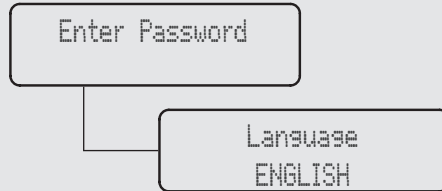
Display	Operating Procedure
	<ol style="list-style-type: none"><li>1 Press the T3 button <b>OK</b> to exit the “Barista” programming and return to the normal use of the espresso machine.</li><li>2 Alternatively, you can exit the “Barista” programming and return to the normal use of the espresso machine by pressing T2 <b>&gt;</b> and T3 <b>OK</b> at the same time.</li></ol>
	

## “Technical” Programming

### Language

### Description

- This parameter allows the technician to change the language of the display.



Display	Operating Procedure
<div data-bbox="206 668 377 715" style="border: 1px solid black; padding: 2px; margin-bottom: 10px;">                     GH 105.0°C 61                      QT 95.5°C 0.0                 </div> <div data-bbox="206 797 377 844" style="border: 1px solid black; padding: 2px; margin-bottom: 10px;">                     Enter Password                 </div> <div data-bbox="206 926 377 973" style="border: 1px solid black; padding: 2px;">                     Language                      ENGLISH                 </div>	<ol style="list-style-type: none"> <li data-bbox="402 668 1591 715">1 When the espresso machine is turned on, press and hold the T3 button <b>OK</b>. After about 10 seconds the following screen is displayed.</li> <li data-bbox="402 797 1591 844">2 Enter the technician password using the buttons T1 <b>&lt;</b>, T2 <b>&gt;</b> and T3 <b>OK</b>. After the acceptance, the following screen is displayed.</li> <li data-bbox="402 926 1591 973">3 Press the T3 button <b>OK</b> to enter the menu, move between the parameters using the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to select a language, press the T3 button <b>OK</b> to confirm the option.</li> <li data-bbox="402 1060 1591 1094">4 Press T1 <b>&lt;</b> or T2 <b>&gt;</b> to continue with the programming of the other parameters.</li> </ol>

## “Technical” Programming

### Language

### Description

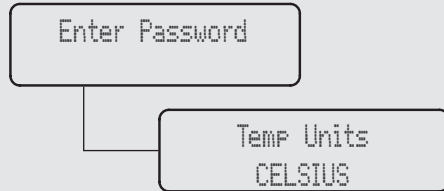
- This parameter allows the technician to change the language of the display.

Enter Password

Language  
ENGLISH

Display	Operating Procedure
<p>Exit Menu</p>	<p><b>5</b> To exit the menu move between the parameters using the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> until the exit menu is displayed. Press the T3 button <b>OK</b> to exit the menu and return to the normal use of the espresso machine.</p>
<p>GH 105.0°C 61 OT 95.5°C 0.0</p>	<p><b>6</b> Alternatively, you can exit the “Technical” programming and return to the normal use of the espresso machine by pressing T2 <b>&gt;</b> and T3 <b>OK</b> at the same time.</p>

### Temperature Measurement Units



#### Description

- This parameter allows the technician to change the temperature display from degrees Celsius to degrees Fahrenheit and vice versa.

Display	Operating Procedure
Enter Password	1 After accessing the “Technical” programming menu and entering the password, use the buttons T1 < and T2 > until the following screen is displayed.
Temp Units CELSIUS	2 Press the T3 button <b>OK</b> to enter the menu, move between the parameters using the buttons T1 < and T2 > to select an option, press the T3 button <b>OK</b> to confirm the option.
	3 Press T1 < or T2 > to continue with the programming of the other parameters.
Exit Menu	4 To exit the menu move between the parameters using the buttons T1 < and T2 > until the exit menu is displayed. Press the T3 button <b>OK</b> to exit the menu and return to the normal use of the espresso machine.

## “Technical” Programming




### Temperature Measurement Units

Enter Password

Temp Units  
CELSIUS

#### Description

- This parameter allows the technician to change the temperature display from degrees Celsius to degrees Fahrenheit and vice versa.

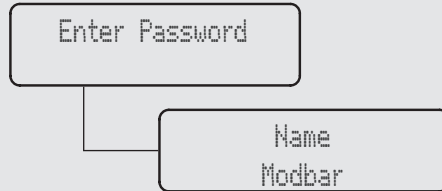
Display	Operating Procedure
	<p><b>5</b> Alternatively, you can exit the “Technical” programming and return to the normal use of the espresso machine by pressing T2  and T3  at the same time.</p>

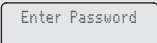


## “Technical” Programming

### Name

### Description

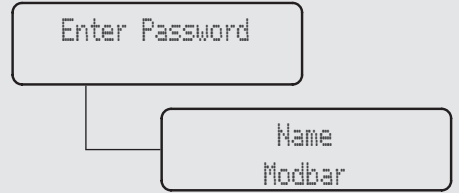
- This parameter allows the technician to program a 16 character user name.
- The user name is displayed continuously on the display on the second line.



Display	Operating Procedure
	<p><b>1</b> After accessing the “Technical” programming menu and entering the password, use the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> until the following screen is displayed.</p>
	<p><b>2</b> Press the T3 button <b>OK</b> to enter the menu, use the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to set the desired value, press the T3 button <b>OK</b> to confirm the value and proceed with writing.</p>
	<p><b>3</b> Press T1 <b>&lt;</b> or T2 <b>&gt;</b> to continue with the programming of the other parameters.</p>
	<p><b>4</b> To exit the menu move between the parameters using the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> until the exit menu is displayed. Press the T3 button <b>OK</b> to exit the menu and return to the normal use of the espresso machine.</p>

## “Technical” Programming

### Name



### Description

- This parameter allows the technician to program a 16 character user name.
- The user name is displayed continuously on the display on the second line.

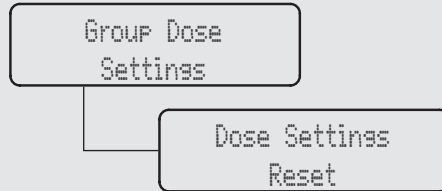
Display	Operating Procedure
	<p><b>5</b> Alternatively, you can exit the “Technical” programming and return to the normal use of the espresso machine by pressing T2  and T3  at the same time.</p>







### Program Dose

### Description

- This parameter allows the operator to cancel all the doses set.



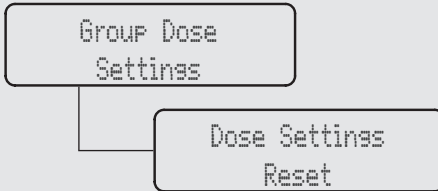
Display	Operating Procedure
Enter Password	<b>1</b> After accessing the “Technical” programming menu and entering the password, use the buttons T1  and T2  until the following screen is displayed.
Group Dose Settings	<b>2</b> Press the T3 button  to enter the doses programming procedure.
Dose Settings Reset	<b>3</b> Press the button T3  to confirm the procedure
Resetting Doses...	<b>4</b> Now all settings are cleared.

## “Technical” Programming

### Program Dose

### Description

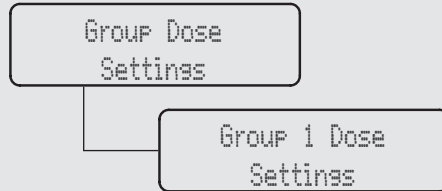
- This parameter allows the operator to cancel all the doses set.



Display	Operating Procedure
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">           Group Dose Exit         </div>	<p><b>5</b> Press T1 &lt; or T2 &gt; until the display shows the exit menu, press the T3 button <b>OK</b> to return to the “Barista” programming.</p>
	<p><b>6</b> Press T1 &lt; or T2 &gt; to continue with the programming of the other parameters.</p>
<div style="border: 1px solid black; padding: 5px;">           GH 105.0°C 61            OT 95.5°C 0.0         </div>	<p><b>7</b> Press T2 &gt; and T3 <b>OK</b> at the same time to exit the programming mode and return to the normal use of the espresso machine.</p>

## “Technical” Programming

### Program Dose



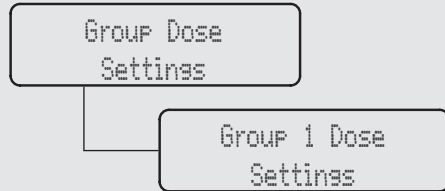
### Description

- This parameter allows the operator to program the amount of coffee (brewing amount) for each Selection Indicator.
- The brewing amount can be set in terms of time (sec. ) or pulses. This number refers to the number of pulses that the flowmeter sends to the CPU.
- Once programmed, the Selection Indicator remains lighted.
- It is possible to set the dose for both a short and a long shot on the same Selection Indicator.

Display	Operating Procedure
Enter Password	<b>1</b> After accessing the “Technical” programming menu and entering the password, use the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> until the following screen is displayed.
Group Dose Settings	<b>2</b> Move between the parameters using the buttons T1 <b>&lt;</b> or T2 <b>&gt;</b> until the display shows:
Group 1 Dose Settings	<b>3</b> Press the T3 button <b>OK</b> to start the doses programming procedure.
G1 Dose Mode DOSE	<b>4</b> Press the T3 button <b>OK</b> to access the menu, then navigate using T1 <b>&lt;</b> and T2 <b>&gt;</b> to choose between <b>PULSES</b> and <b>MASS</b> .

## “Technical” Programming

### Program Dose



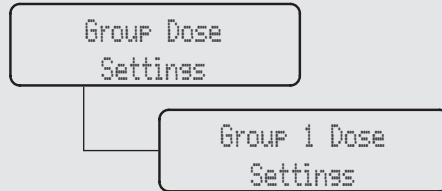
### Description

- This parameter allows the operator to program the amount of coffee (brewing amount) for each Selection Indicator.
- The brewing amount can be set in terms of time (sec. ) or pulses. This number refers to the number of pulses that the flowmeter sends to the CPU.
- Once programmed, the Selection Indicator remains lighted.
- It is possible to set the dose for both a short and a long shot on the same Selection Indicator.

Display	Operating Procedure
↑ Short DOSE	<b>5</b> Press the T3 button <b>OK</b> to access the menu, then navigate using T1 <b>&lt;</b> and T2 <b>&gt;</b> to choose between DOSE, BACKFLUSH, 3 SEC RINSE and CONTINUOUS.
↑ Short Program Volume Dose	<b>6</b> Press the T3 button <b>OK</b> to start the doses programming procedure.
Press Enter To Exit	
Press b To Stop 10 Pulses	
G1B1 Saved 10 Pulses	<b>7</b> To set the brewing time of a short shot, it will be necessary to activate the tap lever until water flows from the group, activate again the tap lever to stop and store the desired dose.

## “Technical” Programming

### Program Dose



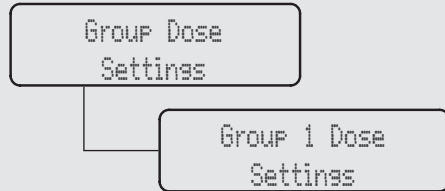
### Description

- This parameter allows the operator to program the amount of coffee (brewing amount) for each Selection Indicator.
- The brewing amount can be set in terms of time (sec. ) or pulses. This number refers to the number of pulses that the flowmeter sends to the CPU.
- Once programmed, the Selection Indicator remains lighted.
- It is possible to set the dose for both a short and a long shot on the same Selection Indicator.

Display	Operating Procedure
↑ Short Dose 30	<b>8</b> Press the button T1 < or T2 > to view the dose. Pressing the button T3 OK, the dose value will blink. Use the button T1 < or T2 > to change the value, press the button T3 OK to confirm the desired value.
↑ Long BACKFLUSH	<b>9</b> Press the T3 button OK to access the menu, then navigate using T1 < and T2 > to choose between DOSE, BACKFLUSH, 3 SEC RINSE and CONTINUOUS.
↓ Short DOSE	<b>10</b> Press the T3 button OK to access the menu, then navigate using T1 < and T2 > to choose between DOSE, BACKFLUSH, 3 SEC RINSE and CONTINUOUS.
↓ Short Program Volume Dose	<b>11</b> Press the T3 button OK to start the doses programming procedure.

## “Technical” Programming

### Program Dose



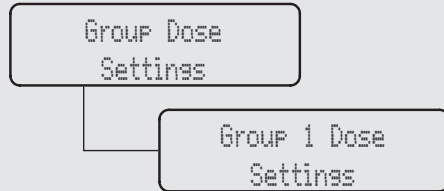
### Description

- This parameter allows the operator to program the amount of coffee (brewing amount) for each Selection Indicator.
- The brewing amount can be set in terms of time (sec. ) or pulses. This number refers to the number of pulses that the flowmeter sends to the CPU.
- Once programmed, the Selection Indicator remains lighted.
- It is possible to set the dose for both a short and a long shot on the same Selection Indicator.

Display	Operating Procedure
<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Press Enter To Exit</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Press b To Stop 10 Pulses</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">G1B1 Saved 10 Pulses</div>	<p><b>12</b> To set the brewing time of a short shot, it will be necessary to activate the tap lever until water flows from the group, activate again the tap lever to stop and store the desired dose.</p>
<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">↓ Short Dose 60</div>	<p><b>13</b> Press the button T1 <b>&lt;</b> or T2 <b>&gt;</b> to view the dose. Pressing the button T3 <b>OK</b>, the dose value will blink. Use the button T1 <b>&lt;</b> or T2 <b>&gt;</b> to change the value, press the button T3 <b>OK</b> to confirm the desired value.</p>
<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">↓ Long 3 SEC RINSE</div>	<p><b>14</b> Press the T3 button <b>OK</b> to access the menu, then navigate using T1 <b>&lt;</b> and T2 <b>&gt;</b> to choose between <b>DOSE</b>, <b>BACKFLUSH</b>, <b>3 SEC RINSE</b> and <b>CONTINUOUS</b>.</p>

## “Technical” Programming

### Program Dose



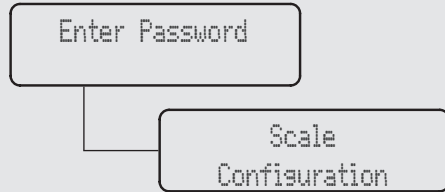
### Description

- This parameter allows the operator to program the amount of coffee (brewing amount) for each Selection Indicator.
- The brewing amount can be set in terms of time (sec. ) or pulses. This number refers to the number of pulses that the flowmeter sends to the CPU.
- Once programmed, the Selection Indicator remains lighted.
- It is possible to set the dose for both a short and a long shot on the same Selection Indicator.

Display	Operating Procedure
<div data-bbox="213 668 368 711" style="border: 1px solid black; padding: 2px; width: fit-content;">Group 1 Dose Exit</div>	<p><b>15</b> Press T1 &lt; or T2 &gt; until the display shows the exit menu, press the T3 button <b>OK</b> to return to the “Barista” programming.</p> <p><b>16</b> Press T1 &lt; or T2 &gt; to continue with the programming of the other parameters.</p>
<div data-bbox="213 929 368 972" style="border: 1px solid black; padding: 2px; width: fit-content;">GH 105.0°C 61 OT 95.5°C 0.0</div>	<p><b>17</b> Press T2 &gt; and T3 <b>OK</b> at the same time to exit the programming mode and return to the normal use of the espresso machine.</p>

## “Technical” Programming (only on Precision Scale espresso machine models)

### Scale Configuration



### Description

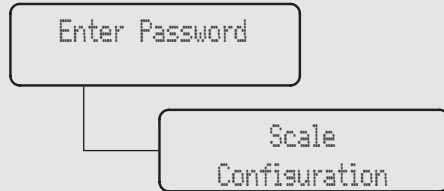
- This parameter allows the operator to view and manually change each dose for each Selection Indicator.
- For greater accuracy and consistency of the doses, it is recommended that you set each Selection Indicator.
- The dose can be set by pulses or by mass (weight).
- This parameter enables the technician to set some scale parameters like:
  - Enabling/disabling the offset parameter;
  - Setting the weight reading time;
  - Calibrating the scales;
  - Updating the scale software.

Display	Operating Procedure
Enter Password	<b>1</b> After accessing the “Technical” programming menu and entering the password, use the buttons T1 $\leftarrow$ and T2 $\rightarrow$ until the following screen is displayed.
Scale Configuration	<b>2</b> Press the T3 button <b>OK</b> to start the doses programming procedure.
Scale $\uparrow$ Short Stop 1.5s early	<b>3</b> Press the T3 button <b>OK</b> to access the menu, the dose value will blink. Use the button T1 $\leftarrow$ or T2 $\rightarrow$ to change the value, press the button T3 <b>OK</b> to confirm the desired value
Scale $\uparrow$ Long Stop 1.5s early	<b>4</b> Press the T3 button <b>OK</b> to access the menu, the dose value will blink. Use the button T1 $\leftarrow$ or T2 $\rightarrow$ to change the value, press the button T3 <b>OK</b> to confirm the desired value



(only on Precision Scale espresso machine models) **“Technical” Programming**

## Scale Configuration



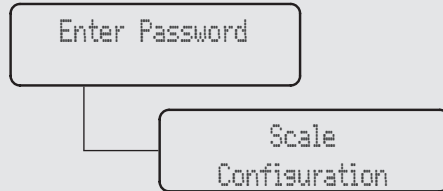
### Description

- This parameter allows the operator to view and manually change each dose for each Selection Indicator.
- For greater accuracy and consistency of the doses, it is recommended that you set each Selection Indicator.
- The dose can be set by pulses or by mass (weight).
- This parameter enables the technician to set some scale parameters like:
  - Enabling/disabling the offset parameter;
  - Setting the weight reading time;
  - Calibrating the scales;
  - Updating the scale software.

Display	Operating Procedure
Scale ↓ Short Stop 1.5s early	<b>5</b> Press the T3 button <b>OK</b> to access the menu, the dose value will blink. Use the button T1 <b>&lt;</b> or T2 <b>&gt;</b> to change the value, press the button T3 <b>OK</b> to confirm the desired value
Scale ↓ Long Stop 1.5s early	<b>6</b> Press the T3 button <b>OK</b> to access the menu, the dose value will blink. Use the button T1 <b>&lt;</b> or T2 <b>&gt;</b> to change the value, press the button T3 <b>OK</b> to confirm the desired value
Scale Tare Time 3s	<b>7</b> Press the T3 button <b>OK</b> to enter the menu, navigate the parameters using the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to set the desired value. This parameter is common to all groups.
G1 Scale PRESENT	<b>8</b> This parameter indicates that the scale is properly connected; navigate using the T1 <b>&lt;</b> and T2 <b>&gt;</b> buttons to display the next menu.

## “Technical” Programming (only on Precision Scale espresso machine models)

### Scale Configuration



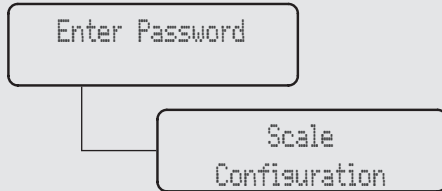
### Description

- This parameter allows the operator to view and manually change each dose for each Selection Indicator.
- For greater accuracy and consistency of the doses, it is recommended that you set each Selection Indicator.
- The dose can be set by pulses or by mass (weight).
- This parameter enables the technician to set some scale parameters like:
  - Enabling/disabling the offset parameter;
  - Setting the weight reading time;
  - Calibrating the scales;
  - Updating the scale software.

Display	Operating Procedure
Calibrate G1 Scale	<b>9</b> Press the T3 button <b>OK</b> to start the calibration procedure.
Empty G1 Scale And Press Enter	<b>10</b> Remove any object from the scale, then press the T3 button <b>OK</b> to confirm. Place the reference weights onto the scale, then press the T3 button <b>OK</b> to confirm. At the end of the process, the self-calibration values or a confirmation message are displayed. Repeat this operation for each group.
Place 100g on G1 And Press Enter	
G1 Scale: v2.5.2 Upgrade to 2.5.2	<b>11</b> Press T2 <b>&gt;</b> to proceed with setting and press the T3 <b>OK</b> button to update the scale firmware if necessary.
View Scale Versions	<b>12</b> Press the T3 button <b>OK</b> to enter the menu.

(only on Precision Scale espresso machine models) **“Technical” Programming**

## Scale Configuration



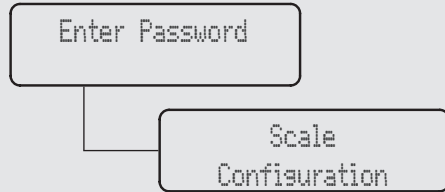
### Description

- This parameter allows the operator to view and manually change each dose for each Selection Indicator.
- For greater accuracy and consistency of the doses, it is recommended that you set each Selection Indicator.
- The dose can be set by pulses or by mass (weight).
- This parameter enables the technician to set some scale parameters like:
  - Enabling/disabling the offset parameter;
  - Setting the weight reading time;
  - Calibrating the scales;
  - Updating the scale software.

Display	Operating Procedure
G1 Scale HW3.0 FW2.5.2	<b>13</b> Use T1 < and T2 > to display the hardware and software version installed.
View Versions Exit	<b>14</b> Use T1 < and T2 > to display the hardware and software version installed.
Scale Settings Exit	<b>15</b> Press T1 < or T2 > until the display shows the exit menu, press the T3 button <b>OK</b> to return to the “Barista” programming.
	<b>16</b> Press T1 < or T2 > to continue with the programming of the other parameters.

## “Technical” Programming (only on Precision Scale espresso machine models)

### Scale Configuration



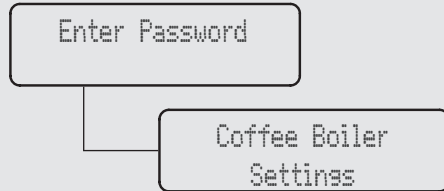
### Description

- This parameter allows the operator to view and manually change each dose for each Selection Indicator.
- For greater accuracy and consistency of the doses, it is recommended that you set each Selection Indicator.
- The dose can be set by pulses or by mass (weight).
- This parameter enables the technician to set some scale parameters like:
  - Enabling/disabling the offset parameter;
  - Setting the weight reading time;
  - Calibrating the scales;
  - Updating the scale software.

Display	Operating Procedure
<p>           6H 105.0°C 61            0T 95.5°C 0.0         </p>	<p><b>17</b> Press T2 <math>\triangleright</math> and T3 <b>OK</b> at the same time to exit the programming mode and return to the normal use of the espresso machine.</p>

## “Technical” Programming

### Coffee Boiler



#### Description

- This parameter enables the technician to set various parameters of the coffee boiler.
- The temperature of the boiler is measured at the most critical point in the boiler where temperature fluctuation is the greatest.
- The temperature of the water exiting the group head is held constant by means of the mass of the group casting. Even

though the temperature of the boiler may vary slightly, the temperature of the water exiting the group is constant.

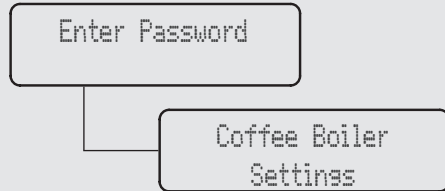
- To properly calibrate the temperature of any espresso machine it is import to measure the temperature of the water exiting the group by means of an external temperature measuring device. The difference of the display temperature and the measured temperature may be compensated by use of the “Coffee T. Offset” parameter.

Display	Operating Procedure
Enter Password	<b>1</b> After accessing the “Technical” programming menu and entering the password, use the buttons T1  and T2  until the following screen is displayed.
Coffee Boiler Settings	<b>2</b> Press the T3 button <b>OK</b> to enter the menu.
In Enabled ENABLED	<b>3</b> Press the T3 button <b>OK</b> to enter the menu, move between the parameters using the buttons T1  and T2  to select <b>ENABLED</b> or <b>DISABLED</b> , press the T3 button <b>OK</b> to confirm the option. In the case of option enabled you can set the following parameters.
In Offset - 1 °C	<b>4</b> Press the T3 button <b>OK</b> to enter the menu, move with the buttons T1  and T2  to set the desired temperature, press the T3 button <b>OK</b> to confirm the value.

**⚠ DANGER ⚠**  
**THE COFFEE BOILER CONTAINS WATER AT ELEVATED TEMPERATURES.**  
**WATER TEMPERATURE OVER 52°C CAN CAUSE SEVERE BURNS IN STANTLY OR DEATH FROM SCALDING.**

## “Technical” Programming

### Coffee Boiler



#### Description

- This parameter enables the technician to set various parameters of the coffee boiler.
- The temperature of the boiler is measured at the most critical point in the boiler where temperature fluctuation is the greatest.
- The temperature of the water exiting the group head is held constant by means of the mass of the group casting. Even

though the temperature of the boiler may vary slightly, the temperature of the water exiting the group is constant.

- To properly calibrate the temperature of any espresso machine it is important to measure the temperature of the water exiting the group by means of an external temperature measuring device. The difference of the display temperature and the measured temperature may be compensated by use of the “Coffee T. Offset” parameter.

Display	Operating Procedure
Out Enabled ENABLED	<b>5</b> Press the T3 button <b>OK</b> to enter the menu, move between the parameters using the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to select <b>ENABLED</b> or <b>DISABLED</b> , press the T3 button <b>OK</b> to confirm the option. In the case of option enabled you can set the following parameters.
Out Temperature 93,0°C 94,5 °C	<b>6</b> Press the T3 button <b>OK</b> to enter the menu, move with the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to set the desired temperature, press the T3 button <b>OK</b> to confirm the value. <b>The temperature indicated on the left is the actual temperature of the group while the temperature on the right is the set temperature.</b>
Out Offset - 1 °C	<b>7</b> Press the T3 button <b>OK</b> to enter the menu, move with the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to set the desired temperature, press the T3 button <b>OK</b> to confirm the value.
CB Settings Exit	<b>8</b> Press T1 <b>&lt;</b> or T2 <b>&gt;</b> until the display shows the exit menu, press the T3 button <b>OK</b> to return to the “Barista” programming.

## “Technical” Programming

### Coffee Boiler

Enter Password

Coffee Boiler  
Settings

#### Description

- This parameter enables the technician to set various parameters of the coffee boiler.
- The temperature of the boiler is measured at the most critical point in the boiler where temperature fluctuation is the greatest.
- The temperature of the water exiting the group head is held constant by means of the mass of the group casting. Even

though the temperature of the boiler may vary slightly, the temperature of the water exiting the group is constant.

- To properly calibrate the temperature of any espresso machine it is import to measure the temperature of the water exiting the group by means of an external temperature measuring device. The difference of the display temperature and the measured temperature may be compensated by use of the “Coffee T. Offset” parameter.

Display	Operating Procedure
<p>Exit Menu</p>	<p><b>9</b> To exit the menu move between the parameters using the buttons T1 &lt; and T2 &gt; until the exit menu is displayed. Press the T3 button <b>OK</b> to exit the menu and return to the normal use of the espresso machine.</p>
<p>GH 105.0°C 61 OT 95.5°C 0.0</p>	<p><b>10</b> Alternatively, you can exit the “Technical” programming and return to the normal use of the espresso machine by pressing T2 &gt; and T3 <b>OK</b> at the same time.</p>

## “Technical” Programming









### Head Heater

### Description

- This parameter enables the technician to set various parameters of the Espresso Tap for increasing temperature performances depending on machine configuration.

Enter Password

Head Heater  
Settings

Display	Operating Procedure
Enter Password	<ol style="list-style-type: none"> <li>After accessing the “Technical” programming menu and entering the password, use the buttons T1  and T2  until the following screen is displayed.</li> <li>Press the T3 button  to enter the menu.</li> <li>Press the T3 button  to enter the menu.</li> <li>Press the T3 button  to enter the menu, move with the buttons T1  and T2  to set the desired temperature, press the T3 button  to confirm the value.</li> </ol>
Head Heater Settings	
Head 1 Smart PID Settings	
Head1 ST00 2 °C	



### DANGER



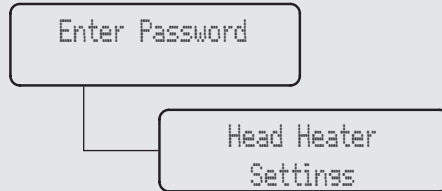
THE COFFEE BOILER CONTAINS WATER AT ELEVATED TEMPERATURES.  
WATER TEMPERATURE OVER 52°C CAN CAUSE SEVERE BURNS IN STANTLY OR DEATH FROM SCALDING.



### Head Heater

#### Description

- This parameter enables the technician to set various parameters of the Espresso Tap for increasing temperature performances depending on machine configuration.



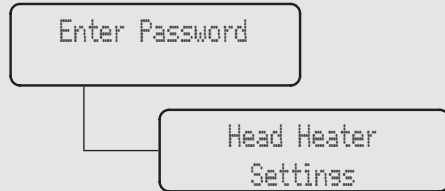
Display	Operating Procedure
Head1 ST01 0 °C	<b>5</b> Press the T3 button <b>OK</b> to enter the menu, move with the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to set the desired temperature, press the T3 button <b>OK</b> to confirm the value.
Head1 ST02 4 °C	<b>6</b> Press the T3 button <b>OK</b> to enter the menu, move with the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to set the desired temperature, press the T3 button <b>OK</b> to confirm the value.
Head1 SM01 120	<b>7</b> Press the T3 button <b>OK</b> to enter the menu, move with the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to set the value, press the T3 button <b>OK</b> to confirm the value.
Head1 SM02 240	<b>8</b> Press the T3 button <b>OK</b> to enter the menu, move with the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to set the value, press the T3 button <b>OK</b> to confirm the value.

## “Technical” Programming

### Head Heater

#### Description

- This parameter enables the technician to set various parameters of the Espresso Tap for increasing temperature performances depending on machine configuration.

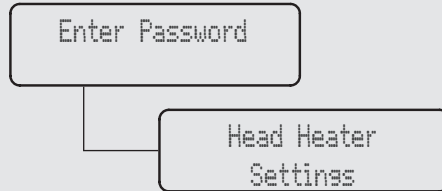


Display	Operating Procedure
Head1 MST 6	<b>9</b> Press the T3 button <b>OK</b> to enter the menu, move with the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to set the value, press the T3 button <b>OK</b> to confirm the value.
Head 1 Smart PID Exit	<b>10</b> Press T1 <b>&lt;</b> or T2 <b>&gt;</b> until the display shows the exit menu, press the T3 button <b>OK</b> to exit the menu.
Head Heater Exit	<b>11</b> Press T1 <b>&lt;</b> or T2 <b>&gt;</b> until the display shows the exit menu, press the T3 button <b>OK</b> to return to the “Barista” programming.
Exit Menu	<b>12</b> To exit the menu move between the parameters using the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> until the exit menu is displayed. Press the T3 button <b>OK</b> to exit the menu and return to the normal use of the espresso machine.

### Head Heater

#### Description

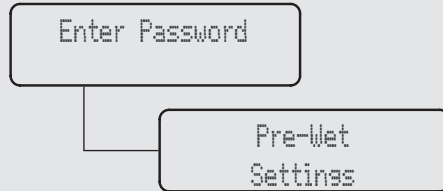
- This parameter enables the technician to set various parameters of the Espresso Tap for increasing temperature performances depending on machine configuration.



Display	Operating Procedure
<div data-bbox="206 668 377 717" style="border: 1px solid black; padding: 2px;">           GH 105.0°C 61            OT 95.5°C 0.0         </div>	<p><b>13</b> Alternatively, you can exit the “Technical” programming and return to the normal use of the espresso machine by pressing T2 <b>&gt;</b> and T3 <b>OK</b> at the same time.</p>

## “Technical” Programming

### Pre-Infusion or Pre-Brewing



### Description

- This parameter allows the operator to program the time of pre-brewing of water with the coffee. Each group can have a different programming.
- Pre-brewing has only two values to be adjusted for each group. The time (in seconds) for which the brewing valve is open during the pre-brewing cycle and the time (in seconds) for which the brewing valve is closed during the

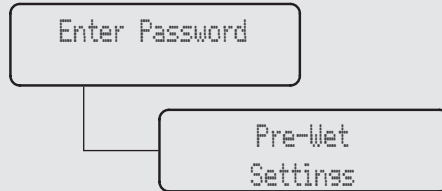
pre-brewing cycle; during this time the pump is active. Once the pre-brewing cycle is over, the normal brewing cycle will continue until the end.

- For an espresso machine composed of two groups, they are identified as Group 1 and Group 2.

Display	Operating Procedure
Enter Password	<b>1</b> After accessing the “Technical” programming menu and entering the password, use the buttons T1  and T2  until the following screen is displayed.
Pre-Wet Settings	<b>2</b> Press the T3 button  to enter the menu.
Group 1 Pre-Wet 0s Wet 0s Hold	<b>3</b> Press T1  or T2  to select the group whose parameters you want to set. By pressing the T3 button  the first value will blink. Use the buttons T1  and T2  to reach the value that you want to set, press T3  to confirm. Repeat this operation to set the second value.
Pre-Wet Settings Exit	<b>4</b> Press T1  or T2  until the display shows the exit menu, press the T3 button  to return to the “Barista” programming.

## “Technical” Programming

### Pre-Infusion or Pre-Brewing



### Description

- This parameter allows the operator to program the time of pre-brewing of water with the coffee. Each group can have a different programming.
- Pre-brewing has only two values to be adjusted for each group. The time (in seconds) for which the brewing valve is open during the pre-brewing cycle and the time (in seconds) for which the brewing valve is closed during the

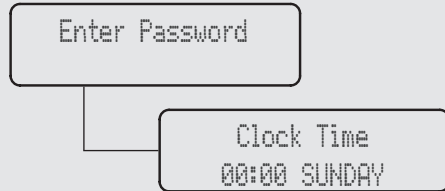
pre-brewing cycle; during this time the pump is active. Once the pre-brewing cycle is over, the normal brewing cycle will continue until the end.

- For an espresso machine composed of two groups, they are identified as Group 1 and Group 2.

Display	Operating Procedure
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-bottom: 10px;">Exit Menu</div>	<p><b>5</b> To exit the menu move between the parameters using the buttons T1 &lt; and T2 &gt; until the exit menu is displayed. Press the T3 button <b>OK</b> to exit the menu and return to the normal use of the espresso machine.</p>
<div style="border: 1px solid black; padding: 5px; width: fit-content;">           GH 105.0°C 61            QT 95.5°C 0.0         </div>	<p><b>6</b> Alternatively, you can exit the “Technical” programming and return to the normal use of the espresso machine by pressing T2 &gt; and T3 <b>OK</b> at the same time.</p>

## “Technical” Programming

### Clock Adjust



### Description

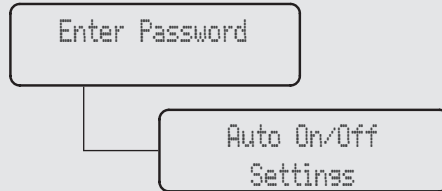
- This parameter allows the user to set the time of day and the day of the week.
- This parameter is used to display time and is also used by the “Auto On/Off” parameter
- There are 4 changeable values within this parameter:
  - Hour;
  - Minute;
  - Day of week;
  - Hour Format 12h or 24h.

Display	Operating Procedure
	<b>1</b> After accessing the “Technical” programming menu and entering the password, use the buttons T1  and T2  until the following screen is displayed.
	<b>2</b> Pressing the T3 button  the first value will blink. Use the buttons T1  and T2  to set the clock. Repeat the operation to set the day of the week.
	<b>3</b> To exit the menu move between the parameters using the buttons T1  and T2  until the exit menu is displayed. Press the T3 button  to exit the menu and return to the normal use of the espresso machine.
	<b>4</b> Alternatively, you can exit the “Technical” programming and return to the normal use of the espresso machine by pressing T2  and T3  at the same time.

## “Technical” Programming

### Auto On/Off

### Description

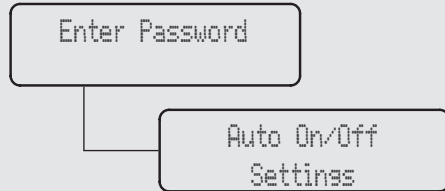


- This parameter allows the technician to program the espresso machine to turn on at a preset time and turn off at a preset time.
- This feature also allows the espresso machine to remain in the off condition for one repeating closed day.

Display	Operating Procedure
Enter Password	<b>1</b> After accessing the “Technical” programming menu and entering the password, use the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> until the following screen is displayed.
Auto On/Off Settings	<b>2</b> Press the T3 button <b>OK</b> to enter the menu.
Auto On/Off ENABLED	<b>3</b> Press the T3 button <b>OK</b> to enter the menu, move between the parameters using the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to select <b>ENABLED</b> or <b>DISABLED</b> , press the T3 button <b>OK</b> to confirm the option.
Auto On Time 00:00	<b>4</b> If the parameter is enabled, press the T3 button <b>OK</b> to enter the menu, move with the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to set the desired time, press the T3 button <b>OK</b> to confirm the value. Press the T3 button <b>OK</b> to enter the menu, move with the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to set the desired time, press the T3 button <b>OK</b> to confirm the value.
Auto Off Time 00:00	

## “Technical” Programming

### Auto On/Off



### Description

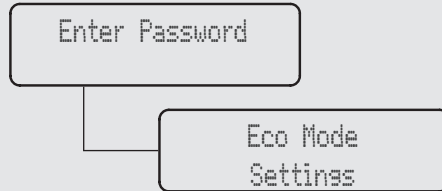
- This parameter allows the technician to program the espresso machine to turn on at a preset time and turn off at a preset time.
- This feature also allows the espresso machine to remain in the off condition for one repeating closed day.

Display	Operating Procedure
<div style="border: 1px solid black; padding: 5px; width: fit-content;">           Closed On NEVER         </div>	<b>5</b> Press the T3 button <b>OK</b> to enter the menu, move with the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to select an option, press the T3 button <b>OK</b> to confirm the option.
<div style="border: 1px solid black; padding: 5px; width: fit-content;">           Auto On/Off Exit         </div>	<b>6</b> Press T1 <b>&lt;</b> or T2 <b>&gt;</b> until the display shows the exit menu, press the T3 button <b>OK</b> to return to the “Barista” programming.
<div style="border: 1px solid black; padding: 5px; width: fit-content;">           Exit Menu         </div>	<b>7</b> To exit the menu move between the parameters using the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> until the exit menu is displayed. Press the T3 button <b>OK</b> to exit the menu and return to the normal use of the espresso machine.
<div style="border: 1px solid black; padding: 5px; width: fit-content;">           GH 105.0°C 61 OT 95.5°C 0.0         </div>	<b>8</b> Alternatively, you can exit the “Technical” programming and return to the normal use of the espresso machine by pressing T2 <b>&gt;</b> and T3 <b>OK</b> at the same time.



## “Technical” Programming

### Eco Mode



### Description

- This parameter allows the technician to set up a temperature to be maintained in case of a temporary non utilization of the espresso machine.
- It is possible to set this parameter also during the normal operation of the machine by pressing T1 and T2 at the same time.

Display	Operating Procedure
Enter Password	<b>1</b> After accessing the “Technical” programming menu and entering the password, use the buttons T1 < and T2 > until the following screen is displayed.
Eco Mode Settings	<b>2</b> Press the T3 button <b>OK</b> to enter the menu.
Eco Mode Temp -10.0°C	<b>3</b> Press the T3 button <b>OK</b> to enter the menu, move between the parameters with the buttons T1 < and T2 > to set the desired temperature, press the T3 button <b>OK</b> to confirm the value.
Auto Eco Time 30	<b>4</b> Press the T3 button <b>OK</b> to enter the menu, move between the parameters with the buttons T1 < and T2 > to set the desired time (in minutes), press the T3 button <b>OK</b> to confirm the value. A value of “0” (zero) disables the Eco Mode parameter.

## “Technical” Programming


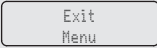
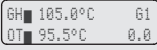
### Eco Mode

Enter Password

Eco Mode  
Settings

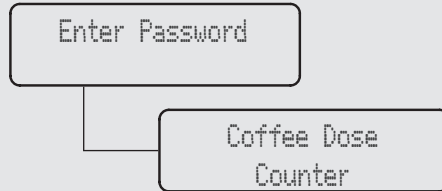
### Description

- This parameter allows the technician to set up a temperature to be maintained in case of a temporary non utilization of the espresso machine.
- It is possible to set this parameter also during the normal operation of the machine by pressing T1 and T2 at the same time.

Display	Operating Procedure
 <p>Eco Mode Exit</p>	<p><b>5</b> Press T1 &lt; or T2 &gt; until the display shows the exit menu, press the T3 button <b>OK</b> to return to the “Barista” programming.</p>
 <p>Exit Menu</p>	<p><b>6</b> To exit the menu move between the parameters using the buttons T1 &lt; and T2 &gt; until the exit menu is displayed. Press the T3 button <b>OK</b> to exit the menu and return to the normal use of the espresso machine.</p>
 <p>GH 105.0°C 61 OT 95.5°C 0.0</p>	<p><b>7</b> Alternatively, you can exit the “Technical” programming and return to the normal use of the espresso machine by pressing T2 &gt; and T3 <b>OK</b> at the same time.</p>

## “Technical” Programming

### Coffee Dose Counter



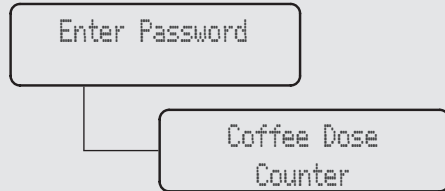
#### Description

- This parameter allows the technician to review the total doses dispensed for each button.
- This parameter displays different values:
  - Total coffee doses;
  - Coffee doses for each button;
  - Tea doses.

Display	Operating Procedure
Enter Password	<b>1</b> After accessing the “Technical” programming menu and entering the password, use the buttons T1  and T2  until the following screen is displayed.
Coffee Dose Counter	<b>2</b> Press the T3 button  to enter the menu.
Total Coffee Doses: 63	<b>3</b> Move between the parameters using the buttons T1  and T2  to display the desired option:
Doses1  Long 10	<b>4</b> Continuing to move with the buttons T1  and T2  you can display the total doses.

## “Technical” Programming

### Coffee Dose Counter



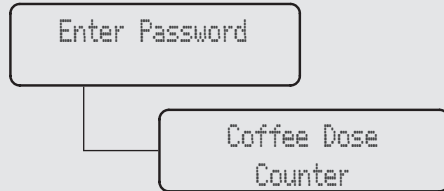
#### Description

- This parameter allows the technician to review the total doses dispensed for each button.
- This parameter displays different values:
  - Total coffee doses;
  - Coffee doses for each button;
  - Tea doses.

Display	Operating Procedure
Doses1 0 Short 10	<b>5</b> Continuing to move with the buttons T1 < and T2 > you can display the total doses.
Doses1 0 Lons 10	<b>6</b> Continuing to move with the buttons T1 < and T2 > you can display the total doses.
Doses1 0 Short 10	<b>7</b> Continuing to move with the buttons T1 < and T2 > you can display the total doses.
Coffee Dose Exit	<b>8</b> Press T1 < or T2 > until the display shows the exit menu, press the T3 button <b>OK</b> to return to the “Barista” programming.

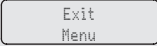
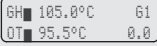
## “Technical” Programming

### Coffee Dose Counter



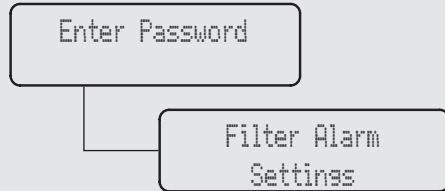
#### Description

- This parameter allows the technician to review the total doses dispensed for each button.
- This parameter displays different values:
  - Total coffee doses;
  - Coffee doses for each button;
  - Tea doses.

Display	Operating Procedure
	<p><b>9</b> To exit the menu move between the parameters using the buttons T1 &lt; and T2 &gt; until the exit menu is displayed. Press the T3 button <b>OK</b> to exit the menu and return to the normal use of the espresso machine.</p>
	<p><b>10</b> Alternatively, you can exit the “Technical” programming and return to the normal use of the espresso machine by pressing T2 &gt; and T3 <b>OK</b> at the same time.</p>

## “Technical” Programming

### Filter Alarm



### Description

- This parameter enables the technician to program an alarm that will alert the user about the need for maintenance or replacement of the water filter.
- Once the set volume has been reached, the error message “Filter Alarm” will be displayed.
- A value of 0 (zero) disables the filter alarm parameter.
- This feature can be enabled or disabled.

Display	Operating Procedure
Enter Password	<b>1</b> After accessing the “Technical” programming menu and entering the password, use the buttons T1 $\leftarrow$ and T2 $\rightarrow$ until the following screen is displayed.
Filter Alarm Settings	<b>2</b> Press the T3 button <b>OK</b> to enter the menu.
Filter Alarm ENABLED	<b>3</b> Press the T3 button <b>OK</b> to enter the menu, move between the parameters using the buttons T1 $\leftarrow$ and T2 $\rightarrow$ to select <b>ENABLED</b> or <b>DISABLED</b> , press the T3 button <b>OK</b> to confirm the option.
Filter Status 0 of 5000L	<b>4</b> Press the T3 button <b>OK</b> to enter the menu, move between the parameters with the buttons T1 $\leftarrow$ and T2 $\rightarrow$ to set the desired value, press the T3 button <b>OK</b> to confirm the value.
Filter Alarm 5000 Liters	

## “Technical” Programming

### Filter Alarm

Enter Password

Filter Alarm  
Settings

### Description

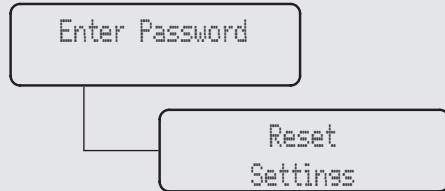
- This parameter enables the technician to program an alarm that will alert the user about the need for maintenance or replacement of the water filter.
- Once the set volume has been reached, the error message “Filter Alarm” will be displayed.
- A value of 0 (zero) disables the filter alarm parameter.
- This feature can be enabled or disabled.

Display	Operating Procedure
<div style="border: 1px solid black; padding: 5px; width: fit-content;">Filter Alarm Reset 0 Liters</div>	<p><b>5</b> Press the T3 button <b>OK</b> to enter the menu, move between the parameters with the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> to set the desired value, press the T3 button <b>OK</b> to confirm the value.</p>
<div style="border: 1px solid black; padding: 5px; width: fit-content;">Filter Alarm Exit</div>	<p><b>6</b> Press T1 <b>&lt;</b> or T2 <b>&gt;</b> until the display shows the exit menu, press the T3 button <b>OK</b> to return to the “Barista” programming.</p>
<div style="border: 1px solid black; padding: 5px; width: fit-content;">Exit Menu</div>	<p><b>7</b> To exit the menu move between the parameters using the buttons T1 <b>&lt;</b> and T2 <b>&gt;</b> until the exit menu is displayed. Press the T3 button <b>OK</b> to exit the menu and return to the normal use of the espresso machine.</p>
<div style="border: 1px solid black; padding: 5px; width: fit-content;">           GH 105.0°C 61            QT 95.5°C 0.0         </div>	<p><b>8</b> Alternatively, you can exit the “Technical” programming and return to the normal use of the espresso machine by pressing T2 <b>&gt;</b> and T3 <b>OK</b> at the same time.</p>






## “Technical” Programming

### Reset

### Description



- This parameter allows the technician to reset all the values returning to initial factory settings.
- It is possible to reset the settings you made in the “Barista” programming or the settings you made in the “Technical” programming.

Display	Operating Procedure
Enter Password	<b>1</b> After accessing the “Technical” programming menu and entering the password, use the buttons T1  and T2  until the following screen is displayed.
Reset Settings	<b>2</b> Press the T3 button  to enter the menu.
Barista Settings Reset	<b>3</b> Press the T3 button  to reset the settings you made in the “Barista” programming.
Tech. Settings Reset	<b>4</b> Press the T3 button  to reset the settings you made in the “Technical” programming.



## “Technical” Programming



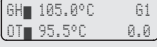
### Reset

Enter Password

Reset  
Settings

### Description

- This parameter allows the technician to reset all the values returning to initial factory settings.
- It is possible to reset the settings you made in the “Barista” programming or the settings you made in the “Technical” programming.

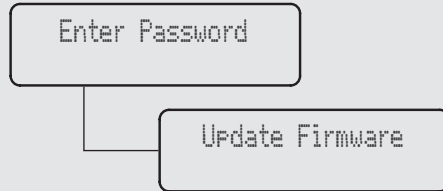
Display	Operating Procedure
	<b>5</b> To exit the menu move between the parameters using the buttons T1 < and T2 > until the exit menu is displayed. Press the T3 button <b>OK</b> to exit the menu and return to the normal use of the espresso machine.
	<b>6</b> To exit the menu move between the parameters using the buttons T1 < and T2 > until the exit menu is displayed. Press the T3 button <b>OK</b> to exit the menu and return to the normal use of the espresso machine.
	<b>7</b> Alternatively, you can exit the “Technical” programming and return to the normal use of the espresso machine by pressing T2 > and T3 <b>OK</b> at the same time.





## “Technical” Programming

### Update Firmware

#### Description

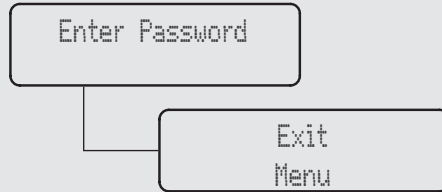
- This parameter allows the technician to update the control unit of the espresso machine via a USB Pendrive.



Display	Operating Procedure
Enter Password	<b>1</b> After accessing the “Technical” programming menu and entering the password, use the buttons T1  and T2  until the following screen is displayed.
Update Firmware	<b>2</b> Press the T3 button  to enter the menu.
Insert USB Key And Press Enter	<b>3</b> Insert the USB Pendrive into the USB port and press the T3 button  .
OFF 00:00	<b>4</b> When the update is over, the espresso machine restarts. Set the switch to 0 (zero) and then again to 1.

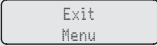
## “Technical” Programming

### Exit Menu



### Description

- This parameter allows the technician to exit the “Technical” programming and return to the normal use of the espresso machine.

Display	Operating Procedure
 <p>The screenshot shows a rectangular display area with the text 'Exit Menu' centered on the screen.</p>	<ol style="list-style-type: none"><li>1 Press the T3 button <b>OK</b> to exit the “Technical” programming and return to the normal use of the espresso machine.</li></ol>

