

# Руководство по эксплуатации

## strada ep

Электрически-контролируемые штиренчатые помпы представляют точный и прямой контроль над давлением. Контролируйте скорости кофемашины с классическим интерфейсом рычагов. Абсолютный и полный контроль над давления во время экстракции. Бариста полностью управляет работой кофемашины. Рекордные показатели по программированию и воспроизведению установок давления



**la marzocco**  
handmade in florence

# strada ep

Руководство по эксплуатации V2.1 - 11/2014

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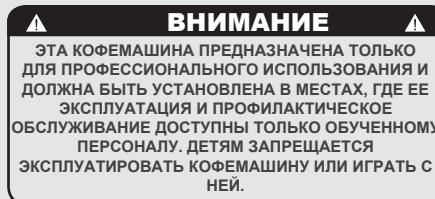
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EN

## 1. Общие правила техники безопасности



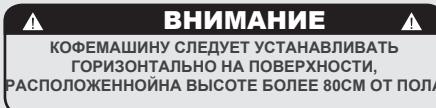
1) Это руководство по эксплуатации является важной и неотъемлемой частью кофемашины и должно быть предоставлено пользователям. Пользователи должны внимательно прочитать приведенные в нем предупреждения и предостережения, поскольку в них содержится важная информация о безопасной установке, использовании и техническом обслуживании кофемашины. Это руководство следует хранить в безопасном месте, доступном для всех пользователей.

2) Убедитесь в целостности кофемашины, проверив ее упаковку; удостоверьтесь, что на ней нет признаков повреждения, способных повлиять на состояние находящейся внутри кофемашины.

**3) Проверьте целостность кофемашины после аккуратного удаления упаковки.**  
**Внимание:** В случае сомнений не предпринимайте никаких дальнейших действий, а незамедлительно свяжитесь с вашим дилером или ритейлером. Они отправят к вам специалиста, уполномоченного проводить работы по обслуживанию кофемашины.

- 4) Не оставляйте упаковку (коробки, пластиковые пакеты, пенопласт и т.п.) в пределах досягаемости детей в связи с потенциальной опасностью, которую она представляет, а также не выбрасывайте ее в окружающую среду.
- 5) Убедитесь в соответствии данных на паспортной табличке кофемашины характеристикам питающей электросети.
- 6) При установке кофемашины необходимо соблюдать действующие федеральные, региональные или местные электротехнические и санитарно-технические правила и нормы. Кроме того, установка должна производиться в соответствии с инструкциями производителя и выполняться квалифицированным и авторизованным персоналом.
- 7) Неправильная установка может стать причиной травмирования людей или животных, а также повреждения предметов, за которые производитель ответственности не несет.
- 8) Безопасность электрической эксплуатации кофемашины обеспечивается только при условии ее надлежащего подключения к электросети, соответствующего всем местным, национальным и международным электротехническим правилам и нормам безопасности, особенно связанным с заземлением электроустановок. Убедитесь, что заземление было произведено надлежащим образом, т.к. оно является основополагающим требованием техники безопасности. Это соединение должно выполняться квалифицированным специалистом.
- 9) Убедитесь, что допустимая нагрузка электросети превышает максимальную потребляемую мощность, указанную на кофемашине.
- 10) Не рекомендуется использовать адаптеры, многополюсные вилки и/или удлинители. Если нет возможности избежать их использования, убедитесь в их полном соответствии местным, национальным и международным электротехническим правилам и нормам безопасности, а также в том, что не будут превышены указанные на этих адаптерах и удлинителях номинальные значения мощности и тока.
- 11) Это устройство должно использоваться только по целевому назначению. Любое другое применение является ненадлежащим и опасным. Производитель не несет ответственность за любой ущерб, причиненный вследствие ненадлежащего и/или нерационального использования оборудования. Нельзя устанавливать кофемашину на кухне.
- 12) При использовании кофемашины необходимо соблюдать основные требования техники безопасности, в частности:
  - не дотрагивайтесь до кофемашины мокрыми или влажными руками и ногами;
  - не используйте оборудование без обуви;

- не используйте удлинители в ванных и душевых комнатах;
- не отсоединяйте кофемашину от розетки электропитания потягиванием за шнур питания;
- не подвергайте кофемашину воздействию атмосферных явлений (дождь, солнце и т.д.);
- не допускайте к эксплуатации кофемашины детей и необученных лиц
  - панель управления не является водонепроницаемой, не протирайте ее влажной тряпкой.



**13)** Перед выполнением любого технического обслуживания и/или чистки, установите выключатель электропитания, находящийся слева на передней панели кофемашины, в положение “0” или “ВЫКЛ” (“OFF”) и отсоедините кофемашину от электросети, вынув вилку из розетки электропитания или разомкнув соответствующий автоматический выключатель. Любые операции по чистке кофемашины должны выполняться в точном соответствии с инструкциями этого руководства.

**14)** В случае отказа или сбоев в работе кофемашины, отсоедините ее от электросети, (следуя инструкциям из предыдущего пункта) и перекройте водоподающий клапан. Не пытайтесь устранить неполадку самостоятельно. Несоблюдение вышеперечисленных требований может привести к нарушению безопасности при эксплуатации кофемашины.

Для выполнения любых ремонтных работ обратитесь к квалифицированному авторизованному специалисту. Все работы должны выполняться исключительно производителем или авторизованным центром, использующими только оригинальные детали. Несоблюдение вышеперечисленных требований может привести к нарушению безопасности при эксплуатации кофемашины.

**15)** Во время установки кофемашины необходимо запланировать использование многополосного соединительного разъема, как этого требуют местные, национальные и международные электротехнические правила и нормы.

**16)** Во избежание опасного перегрева рекомендуется держать шнур электропитания полностью распущенными.

**17)** Не заслоняйте впускные и выпускные вентиляционные решетки, в частности, не покрывайте панель для подогрева чашек тканью или другими материалами.

**18)** Замена шнура электропитания кофемашины не должна осуществляться пользователем. В случае повреждения шнура электропитания выключите кофемашину и отсоедините ее от электросети, вынув вилку из розетки электропитания или разомкнув соответствующий автоматический выключатель;

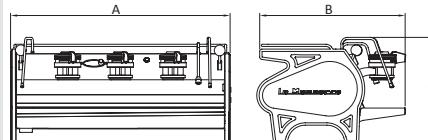
**ВНИМАНИЕ**

КАК УЖЕ ОТМЕЧАЛОСЬ ВЫШЕ, ПРОИЗВОДИТЕЛЬ НЕ НЕСЕТ ОТВЕТСТВЕННОСТЬ ЗА ПРИЧИНЕНИЕ УЩЕРБА ПРЕДМЕТАМ, ТРАВМИРОВАНИЕ ЖИВОТНЫХ ИЛИ ЛЮДЕЙ, ЕСЛИ КОФЕМАШИНА БЫЛА УСТАНОВЛЕНА НЕ В СООТВЕТСТВИИ С ИНСТРУКЦИЯМИ, СОДЕРЖАЩИМИСЯ В ЭТОМ РУКОВОДСТВЕ, И ИСПОЛЬЗОВАЛАСЬ НЕ ПО ЦЕЛЕВОМУ НАЗНАЧЕНИЮ (А ИМЕННО, ДЛЯ ПРИГОТОВЛЕНИЯ КОФЕ И ГОРЯЧИХ НАПИТКОВ).

**ВНИМАНИЕ**

КОФЕМАШИНА НЕ ПРЕДНАЗНАЧЕНА ДЛЯ ЭКСПЛУАТАЦИИ НА ОТКРЫТОМ ВОЗДУХЕ. ДЛЯ ЧИСТИКИ КОФЕМАШИНЫ НЕЛЬЗЯ ИСПОЛЬЗОВАТЬ СТРУЮ ВОДЫ, А ТАКЖЕ РАЗМЕЩАТЬ КОФЕМАШИНУ В МЕСТАХ, ГДЕ ОНИ ИСПОЛЬЗУЮТСЯ.

## 1) Стандартные габариты, масса и характеристики кофемашин



STRADA EP	2 gr.	3 gr.
A [mm]	800	1000
B [mm]	675	675
C [mm]	475	475
WEIGHT [kg]	70	91

## 2. Описание имеющихся моделей

**Данное руководство по эксплуатации относится исключительно к следующим моделям нашего производства:**  
**STRADA 3 EP**

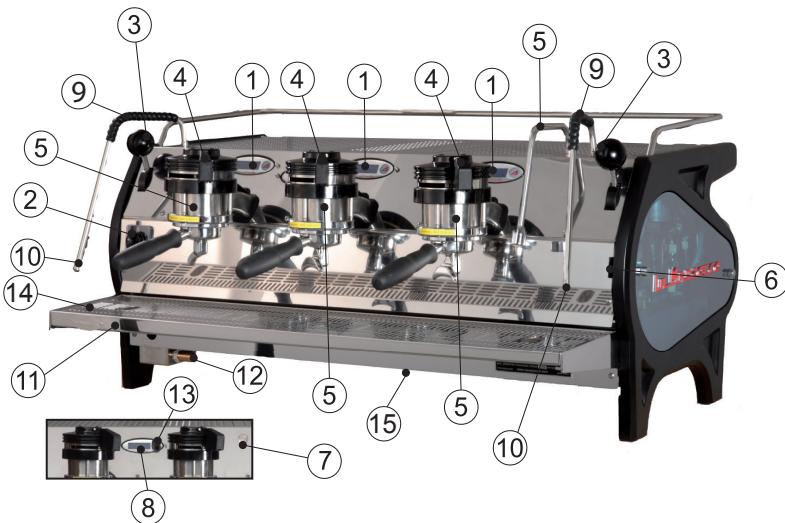


Рис. 1 - Модель EP с 2 и 3 группами

### Условные обозначение

- 1 Дисплей групп
- 2 Основной выключатель
- 3 Рычаг паровой трубы
- 4 Рычаг электронной заварки
- 5 Рычаг горячей воды
- 6 Рычаг смеси горячей воды
- 7 Программирование изменения горячей воды
- 8 Дисплей
- 9 Паровой рычаг
- 10 Защита парового рычага
- 11 Съемный сливной поднос
- 12 Держатель крана использованной воды
- 13 КОоеиско программирования
- 14 Решетка сливного подноса
- 15 Коннектор USB

За дополнительной информацией по электронике, клавишным панелям и программированию ПО вашей кофемашины обратитесь к разделу “Программирование ПО”.

## **1) Общее описание**

Кофемашина представлена моделями с 2 и 3 заварочными группами и состоит из следующих частей:

- Паровой бойлер (производит пар и горячую воду)
- Кофейный бойлер ("насыщенный") бойлер
- Заварочные группы
- Внешний корпус
- Водяная помпа

## **2) Описание частей кофемашины**

### **Паровой бойлер**

Паровой бойлер состоит из цилиндрического бака, длина которого зависит от количества заварочных групп в кофемашине. Он изготовлен из нержавеющей стали серии AISI 300. Каждый бойлер подвергается гидравлическому испытанию давлением 6 бар и имеет рабочее давление 1,3-1,5 бар. Ниже приведен список полезных объемов и номинальной мощности, в зависимости от количества заварочных групп в кофемашине:

2 группы	8,2 л.	3000 Вт
3 группы	11,8 л.	4000 Вт

С обоих концов к цилиндрическому баку приварены боковые стенки, на одной из них имеется гнездо для нагревательного элемента, который позволяет паровому бойлеру достигать рабочего давления в течение примерно 25 минут. Рабочее давление поддерживается при помощи датчика давления или температурного датчика.

Паровой бойлер имеет разнообразные соединительные части, используемые для защитных устройств, обеспечения кипятком и паром, а также для нагревательного элемента.

- Рабочее давление 1,3-1,5 бар контролируется автоматически рычагом давления или температурной пробой, которая открывает элемент циркуляции подогрева при 1,5 барах и закрывает при 1,3 барах.
  - Давление отображается измерительным прибором (от 0 до 2 бар)
  - Устройство безопасности срабатывает при достижении 1,8 бар
- Гидравлический тест (4,5 бар) был пройден на нашей фабрике

### **Кофейный бойлер**

Кофейный бойлер состоит из цилиндрического бака, длина которого зависит от количества заварочных групп в кофемашине. Он изготовлен из нержавеющей стали серии AISI 300. Каждый бойлер подвергается гидравлическому испытанию давлением 18 бар и имеет рабочее давление 9 бар. Ниже приведен список полезных объемов и номинальной мощности, в зависимости от количества заварочных групп в кофемашине:

2 группы - 3,4 л - 1400 Вт

3 группы - 5,0 л - 1600 или 1900 Вт

С обоих концов к цилиндрическому баку приварены боковые стенки, на одной из них имеется гнездо для нагревательных элементов. Температура кофейного бойлера поддерживается при помощи электронного датчика температуры (с функцией PID) с погрешностью 0,2°C. Заварочные группы установлены на бойлере.

Температура оптимальной работы 95° С (регулируема) контролируется автоматически электронным датчиком температуры с погрешностью 0,2°C. 9 бар-оптимальное количество, которое регулируется автоматически при каждой заварке.

- Давление отображается измерительным прибором (от 0 до 15 бар)
- Устройство безопасности срабатывает при достижении 13,5 бар
- Гидравлический тест (18 бар) был пройден на нашей фабрике

### **Заварочные группы**

Выполнены из нержавеющей стали методом прецизионного литья. В заварочную группу вставляется портафильтр, используемый для закладки молотого кофе; эспрессо получается после нажатия кнопки приготовления напитка, когда горячая вода под давлением начинает проходить через заварочную группу, корзину портафильтра, носик портафильтра и попадает в чашку (-и).

### **Внешний корпус**

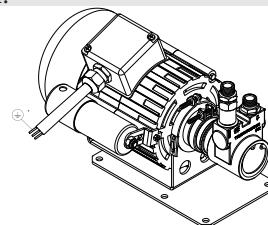
Состоит из панелей тонколистовой нержавеющей стали (модель GB/5) и крашеных пластиковых панелей (модель FB/80). Конструкция корпуса сочетает в себе эстетическую и эргономическую составляющие, минимизирует возможность травмирования оператора кофемашины.

### **Звуковое давление**

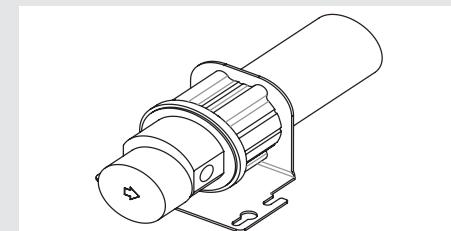
Средний уровень звукового давления от кофемашины не превышает 70дБ(А)

### **Водяная помпа**

Центробежный насос устанавливается на водопроводные трубы; он должен запускаться каждый раз при активации заварочных групп, а также через систему автозаполнения, когда бойлеру необходимо пополнить запас воды.



- Магнитная помпа работает, когда идет заварка кофе(мануально); Либо заранее запрограммируйте давление на 0-12 бар.



### 3. Установка

MODEL/SERIES	GROUP	V/Hz	RATED POWER (W)	RATED INPUT (A)	COFFEE BOILER WATTAGE	STEAM BOILER WATTAGE	TOTAL WATTAGE	POWER CORD SIZE (mm²)
STRADA EP	2GR	AC220-240V/60Hz AC208-240V/60Hz AC380/50Hz	4600	20-22 23 12	1600	3000	4600	SEE ELECTRICAL CONNECTIONS
	3GR	AC220-240V/60Hz AC208-240V/60Hz AC380/50Hz	6400	25-29 30,5 16	2400	4000	6400	FOR DETAILS

**POWER CORD:**  
**220V**  
 3 X WIRES 1 X BLUE (NEUTRAL)  
 1 X BROWN (PHASE)  
 1 X YELLOW & GREEN (GROUND)



**380V**  
 5 X WIRES 1 X BROWN (PHASE) 1 X BLUE (NEUTRAL)  
 1 X GRAY (PHASE) 1 X YELLOW & GREEN (GROUND)  
 1 X BLACK (PHASE)



**WARNING**

THE DETAILS ON THE LEFT DESCRIBE HOW TO CONNECT EACH WIRE TO THE PLUG. RESPECT ALSO THE LOCAL SAFETY REGULATIONS.

#### ВНИМАНИЕ

КОФЕМАШИНА НЕ ПРЕДНАЗНАЧЕНА ДЛЯ ИСПОЛЬЗОВАНИЯ ЛЮДЬМИ (ВКЛЮЧАЯ ДЕТЕЙ) С ОГРАНИЧЕННЫМИ ФИЗИЧЕСКИМИ, СЕНСОРНЫМИ ИЛИ УМСТВЕННЫМИ СПОСОБНОСТЯМИ ИЛИ С ОТСУСТИЕМ НЕОБХОДИМОГО ОПЫТА И ЗНАНИЙ, ЗА ИСКЛЮЧЕНИЕМ СЛУЧАЕВ РАБОТЫ ПОД НЕПОСРЕДСТВЕННЫМ КОНТРОЛЕМ ОТВЕТСТВЕННОГО ЛИЦА, ОТВЕЧАЮЩЕГО ЗА БЕЗОПАСНОСТЬ, ИЛИ ПРОВЕДЕНИЯ ИМ ИНСТРУКТАЖА ПО ЭКСПЛУАТАЦИИ КОФЕМАШИНЫ.

#### ВНИМАНИЕ

КОФЕЙНЫЙ И ПАРОВОЙ БОЙЛЕРЫ СОДЕРЖАТ ВОДУ ВЫСОКОЙ ТЕМПЕРАТУРЫ. ВОДА ПРИ ТЕМПЕРАТУРЕ ВЫШЕ 125°F / 52°C МОЖЕТ СТАТЬ ПРИЧИНОЙ ТЯЖЕЛЫХ ОЖОГОВ ВПЛОТЬ ДО СМЕРTELьНЫХ (ТЕМПЕРАТУРА В КОФЕЙНОМ БОЙЛЕРЕ = 207°F/97°C, В ПАРОВОМ БОЙЛЕРЕ = 256°F /124°C).

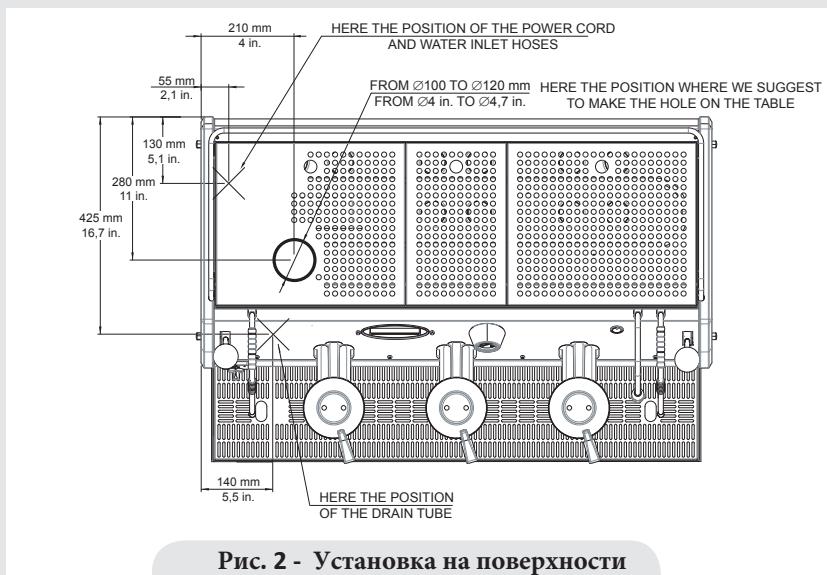


Рис. 2 - Установка на поверхности

## 1) Руководство по установке

STRADA нуждается в 100л/ч и давлении 2,5 бар для наиболее эффективной работы

Другие установки могут повлиять на длительность пригодности помпы и возможность появления сильного шума при заварке кофе

Если давление и поток воды меньше или больше нормы, то могут возникнуть пузыри внутри механизма кофемашины. Этот процесс называется кавитацией и негативно сказывается на кофемашине.

Если поток воды меньше или больше рекомендуемых параметров, то следует выполнить одну из следующих установок:

**Давление меньше 3 бар**

**Скорость потока меньше 100л/ч**

Installation with the rotary pump (set to 3 bar) immediately after the water treatment system, upstream of the tee.

Включите программное меню и активируйте вторую помпу

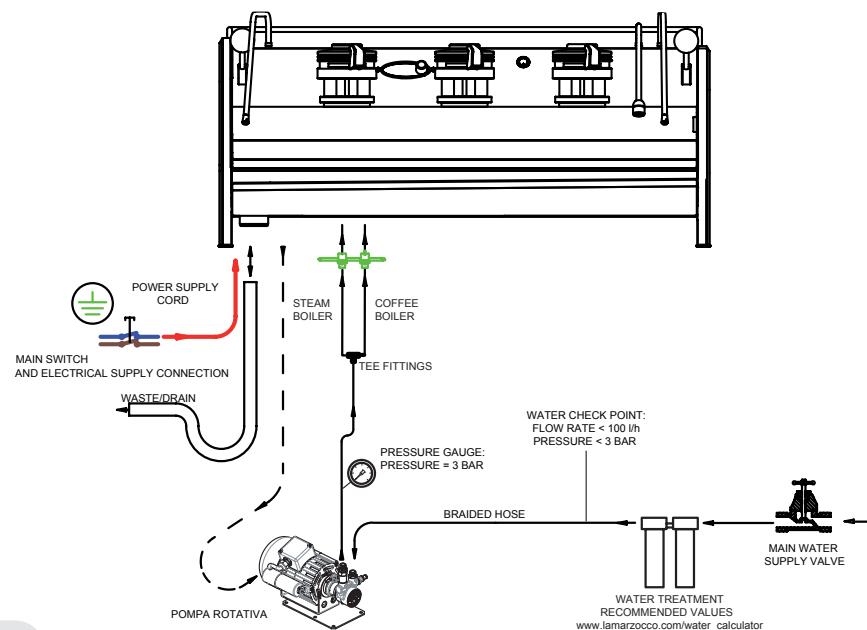
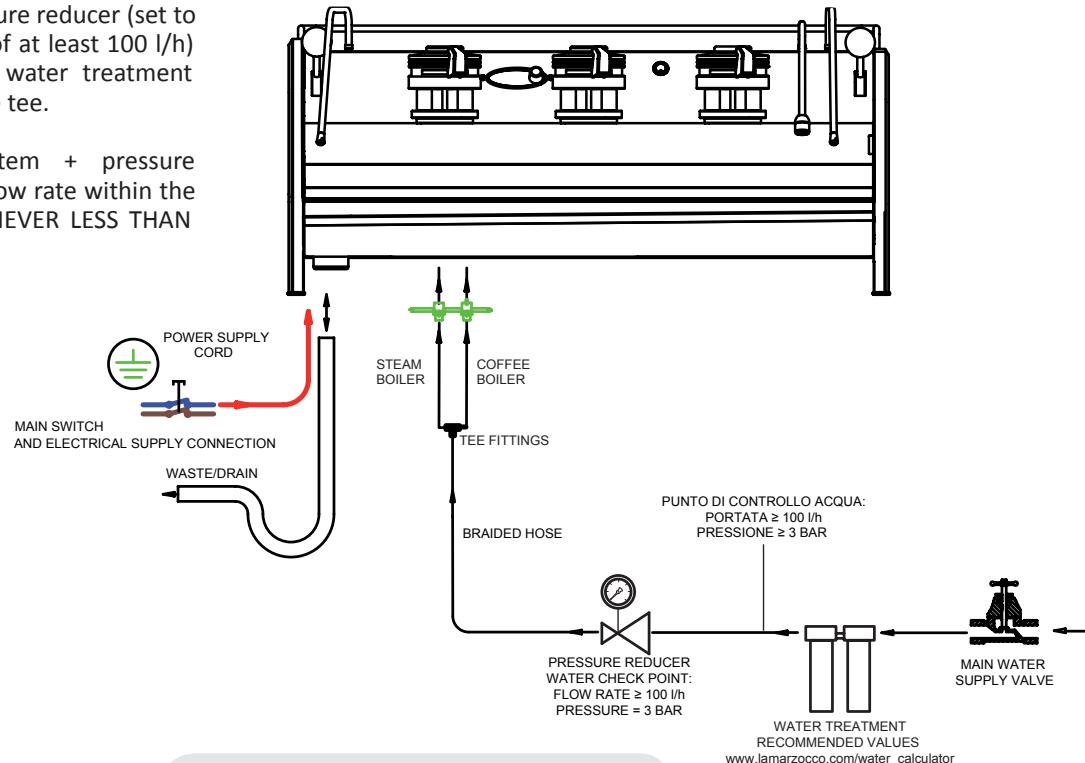


Рис. 3 - Руководство по установке

**Давление больше 3 бар**  
**Скорость потока выше 100л/ч**

Installation of the pressure reducer (set to 3 bar with a flow rate of at least 100 l/h) immediately after the water treatment system, upstream of the tee.

Water treatment system + pressure reducer, reducing the flow rate within the recommended range NEVER LESS THAN 100 l/h.



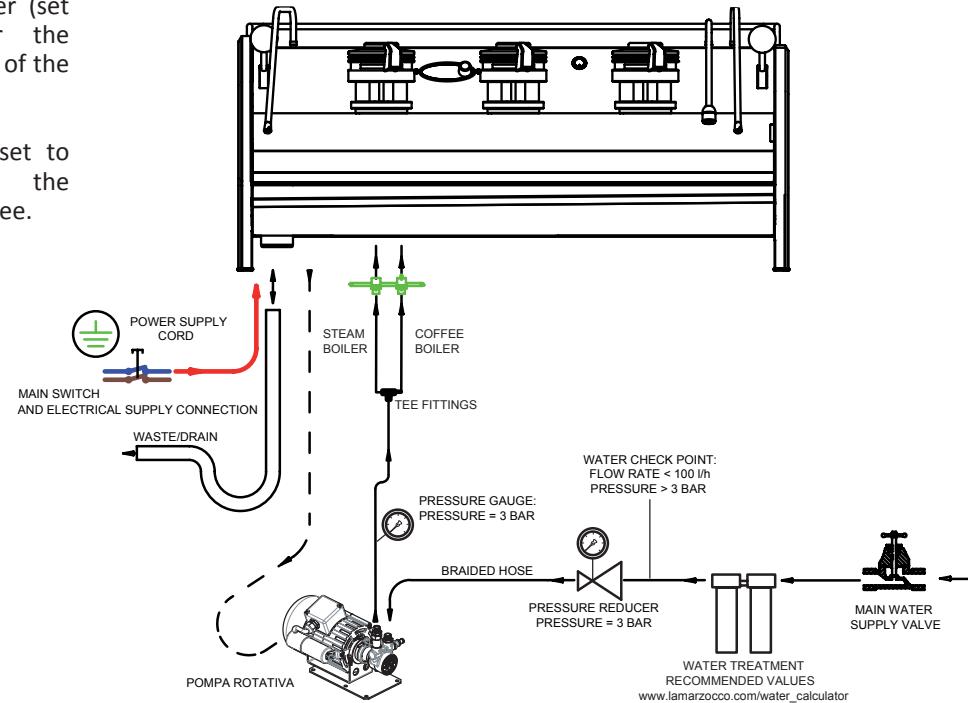
**Рис. 4 - Руководство по установке**

**Давление больше 3 бар**  
**Скорость потока меньше 100л/ч**

Installation of the pressure reducer (set to 3 bar) immediately after the water treatment system, upstream of the rotary pump.

Installation of the rotary pump (set to 3 bar) immediately after the pressure reducer, upstream of the tee.

Включите программное меню и  
активируйте вторую помпу



**Рис. 5 - Руководство по установке**

## 1) Accessories

### WARNING

AT EACH INSTALLATION, THE MACHINE SHOULD BE EQUIPPED WITH A NEW SET OF TUBES FOR PLUMBING AND RELATED GASKETS.

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

- 1 x SINGLE and 3 x DOUBLE portafilters
- 2 x SINGLE and 4 x DOUBLE filters
- 1 x tamper
- 1 x blind filter
- 1 x cleaning detergent
- 3 x stainless steel braided hose for water connections
- 1 x 1,5 mt of reinforced plastic tubing for drainage
- 1 x hose clamp
- 1 x TEE Fitting

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

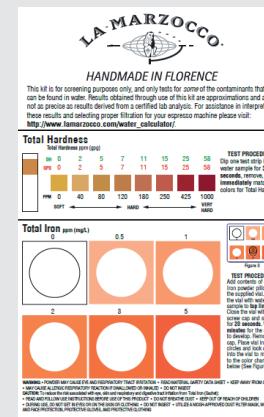
- Single phase 200VAC - 50/60 Hz electrical connection with ground, protected socket and approved interlock switch
- Three-phase, 380VAC - 50 Hz electrical connection with neutral + ground, near the bench on which the machine is installed and terminating in a suitable protected fivepole socket equipped with an approved interlock switch
- Waste water drain system.

### 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 than 0°C/32°F, please contact a service technician prior to use.
- Water pressure supply must be between 2 and 6 bar.

## 2) 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 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/)).

### 3) 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.

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 9°f (90ppm, 5°d) and less than 15°f (150ppm, 8.4°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).

#### WARNING

HAZARDOUS VOLTAGE DISCONNECT FROM POWER SUPPLY BEFORE SERVICING.

#### WARNING

WATER PRESSURE SUPPLY MUST BE BETWEEN 4 AND 8 BAR  
IF SUFFICIENT PRESSURE IS NOT AVAILABLE WE SUGGEST THAT AN ADDITIONAL WATER SUPPLY SYSTEM IS USED

**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.

## 4) Electrical connections

### a) Power supply cord

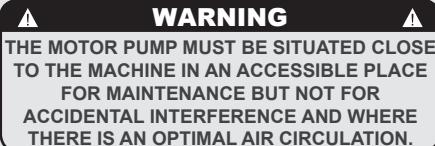
#### CAUTION

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.

• 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.

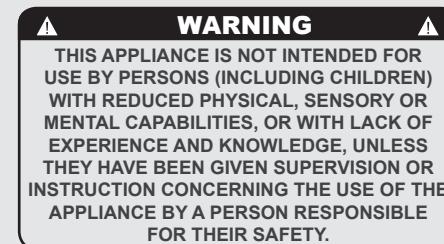
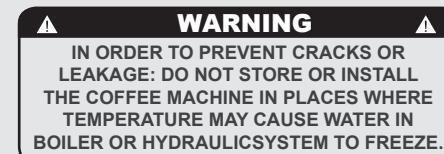
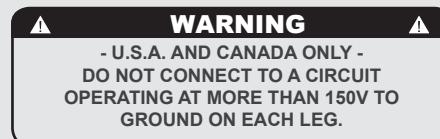
- 3-core cable with 1.5 mm<sup>2</sup> cross section or 3-core AWG 16 (for UL version) secured to espresso machine via a strain relief connector.



**5) 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.



## 4. Machine Operation and Coffee Preparation

### 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 water filter/softener 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 boiler.

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 remove the plastic cap and the handle from the top of the group.



Loosen the bleed screws one at a time to allow air to escape until water flows from below the screw head. Tighten the screw to stop the water from flowing. Over tightening can cause damage to the sealing washer and the group cover. Repeat this procedure on all groups.

activating the auto-fill solenoid valve and the motor pump. This will fill the steam boiler to a predetermined level and will shut off when full.

**Note:** Air inside the steam boiler may build up pressure (which may be detected through the pressure gauge).

Once the pump stops, check the display, the message “Coffee Boiler Filled?” should be displayed. Push the Encoder Knob to confirm that the preceding procedures are complete.

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 13.5bar.



##### • Steam boiler

Turn the main switch to position “1” or ON, then push the encoder knob for three seconds and the automatic steam boiler level function will be switched on,



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

The steam boiler pressure is visible through a pressure gauge placed inside the machine, behind the control and the 1st group.

When the steam boiler reaches operating temperature, the light on the Tea dispense button will switch on.

### 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.

- Being careful to avoid burns, turn on each steam wand for at least one minute.
- 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
  - At least 2 liters for a 3 group machine

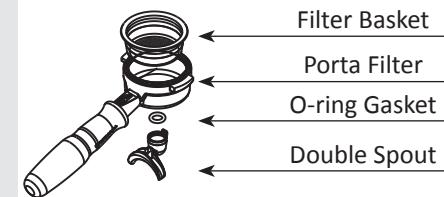


### 4) Installing the portafilters

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 move the electronic Brew Paddle Lever 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 pre-heat 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

It is now possible to remove one of the portafilters to make an espresso beverage through the manipulation of the pressure to your taste.

The Strada Electronic Paddle is an formidable appliance for making espresso beverage that could develop extraction water pressure from 0 to 12 bar as you go.

Press down on the ground coffee with the supplied tamper and install the filter holder to the bottom of the group.

Move the paddle to begin the brewing process. As soon as you start to turn the lever placed on top of the group the magnetic drive gear pump will pushing water into the portafilter.

By turning the lever of the Electronic

Paddle it is possible to vary the speed of the gear pump, as much it will be turned as faster the pump will go.

**Note:** Some baristas suggest flushing the group with water to remove remaining coffee oil or particles. Some flush after every shot. Experimentation and practice is suggested to establish the best possible procedure for brewing coffee.

#### **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.

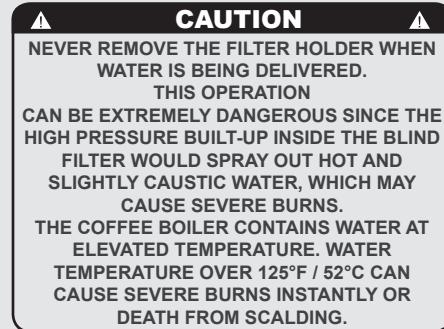
#### **7) General notes for coffee preparation**

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.



#### **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).

## 5. Dispensing Steam and Hot Water

### 1) Steaming milk or other liquids

In order to allow for any condensed water in the wand to be released ALWAYS allow some steam to be discharged by turning on the valve before inserting the steam wand into the pitcher of liquid to be heated.

Dip one of the 2 steam wands (item 10, page 5) which are connected to the steam valve, into the liquid to be heated. Move the steam wand lever gradually until steam comes out at the end of the wand. The steam will transfer heat to the liquid raising its temperature up to boiling point.

Be careful not to allow liquid to overflow in order to avoid severe burns.

In order to prevent the heated liquid from being sucked back into the steam boiler it is recommended before using the wand that you purge the steam valve and steam wand by opening the valve for a few seconds to allow steam to escape to the atmosphere from the end of the steam wand. Failure to do so can cause the heated liquid to transfer from the

heated liquid container to the steam boiler (via vacuum created from cooling parts). This condition is undesirable and can cause contamination in the steam boiler. After use remember to purge the wand by opening the steam valve for a few seconds, and then clean the outside of the wand itself with an appropriate cloth.

In order to prepare milk for making cappuccino with the right amount of foam, go through the following steps:

- After purging the steam wand place the container half-full of milk underneath, carefully open the steam valve and raise the container so as to bring the wand end to a point just below the surface of the milk; at this point, move the container up and down just enough to dip the nozzle end in and out of the milk until you get the right amount of foam, bring the temperature of the milk almost up to 149/158°F or 65/70°C. You can then pour this milk into a cup containing warm espresso and you will end up with a fresh cup of cappuccino.

### 2) Preparing tea and other hot drinks



You may dispense hot water by using the fixed nozzle (item 5 page 5). To dispense hot water, press the tea water button. This button commands the hot water delivery. The temperature of the water may be adjusted by adjusting the mixing valve.

## 6. Maintenance and Periodic Cleaning Operations



### WARNING

THE MACHINE MUST BE INSTALLED SO THAT QUALIFIED TECHNICAL PERSONNEL CAN EASILY ACCESS IT FOR EVENTUAL MAINTENANCE.

### 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.



### CAUTION

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.

#### 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.



### CAUTION

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.

- Turn the Paddle Valve on and off approximately 10 times (10 seconds intervals) on each group.
- Rinse the group using a normal filter, by running hot water through it several times.

### 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, pull out the water drain collector and clean it thoroughly. Inspect and clean also the drain box and remove any leftover grounds.

### 5) Cleaning the body

Wipe the stainless steel 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.

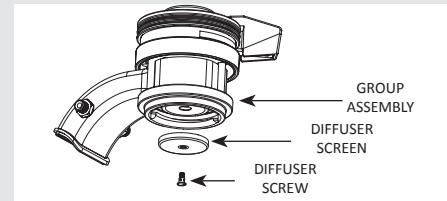


### 6) Cleaning the hot water and steam nozzles

Steam nozzles must be cleaned immediately after use with a damp cloth and by producing a short burst of steam so as to prevent the formation of deposits inside the nozzles themselves, which may alter the flavor of other drinks to be heated. Hot water nozzles must be cleaned periodically with a damp cloth.

### 7) 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 10 minutes.

-Rinse thoroughly with clean water. Install and run hot water through each group several times with the screen installed.

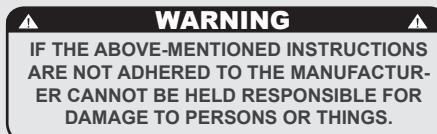
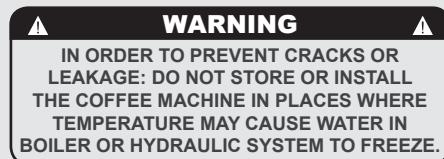
## 8) Water Filter/Softener

Please see the documentation accompanying the water filter/softener for proper operating and cleaning instructions. 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
- **Steam:** Being careful to avoid burns, turn on each steam wand for at least one minute.
- **Hot water:** 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
  - At least 2 liters for a 3 group machine

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.



### 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
- Being careful to avoid burns, turn on each steam wand for at least one minute.
- 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  
At least 2 liters for a 3 group machine  
At least 3 liters for a 4 group machine

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.

## 7. 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.



## **8. Mandatory Maintenance and Check-up Operations**

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

The following maintenance and check-up operations should 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
- Clean auto-fill probe
- Check vacuum breaker for proper operation
- Inspect water inlet valve
- Inspect drain system for leaks or clogs
- Check flow rate for each group
- Check brew temperature
- Check that brew pressure is at correct

- Check all switches for proper operation
- Check/note water hardness (Water quality must be within the range of parameters)

specified in the chapter on Installation, otherwise warranty is voided)

- Check filter basket condition

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

- Replace portafilter baskets
- Inspect group valve plungers
- Inspect vacuum breaker
- Inspect steam boiler
- Inspect pressurestat
- Inspect contactor
- Inspect expansion valve
- Inspect electrical wiring

- condition
- Inspect boilers safety switches
- Replace over-pressure valve (safety valve)

- 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.

# Руководство по программированию ПО

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## STRADA Введение в программирование

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### Описание

- Эта кофемашина имеет центральный процессор (далее “ЦП”) и множество настраиваемых параметров.
- Кроме того, в ней имеется большое количество средств управления с обратной связью для выявления неисправностей в случае необходимости.
- Ниже приводится краткое описание средств управления и цифрового дисплея, а также способа взаимодействия с ними оператора кофемашины.

### Дисплей

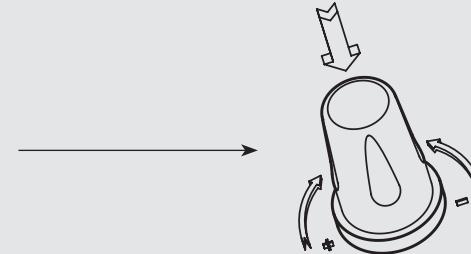
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Цифровой дисплей (далее “дисплей”) имеет подсветку и может отображать 2 строки из 16 знаков. Дисплей визуализирует значения параметров и позволяет оператору их изменять. Дисплей также предоставляет оператору другую полезную информацию.

Имеется несколько предупреждающих сообщений, которые могут высвечиваться на дисплее и извещать оператора об изменении условий или ошибке. Кроме того, на нем отображаются простые сообщения, информирующие оператора об активации действия или необходимости запуска процесса.

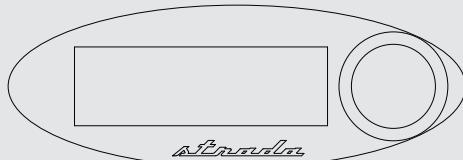
## Программный энкодер



Ручка энкодера всегда находится слева от группы. Повернув ее вправо, можно увеличить объем, повернув влево можно его уменьшить, а если на нее надавить, то можно просмотреть меню ПО, использовать функции или подтвердить инсталляцию. Кофемашина отключается, если нажать на энкодер и удерживать его в течение 3 секунд.

## 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.

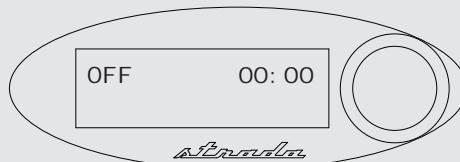
- Proceed checking for water connection to the espresso machine.
- Proceed making sure you have filled the boilers.

Display	Operating Procedure
      	<p><b>1</b> Turn the Main Switch to the ON position. (ON=1, OFF=Ø)</p> <p><b>2</b> The message at left will be displayed briefly. This message indicates the revision level of the software installed in this espresso machine.</p> <p><b>3</b> Press and hold the Encoder Knob for 3 seconds.</p> <p><b>4</b> The espresso machine is now ON and information concerning the boiler and heating elements will appear.</p>



## 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.

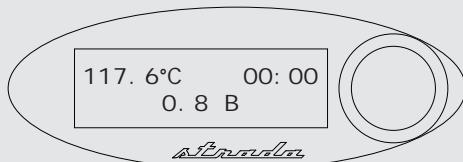
- This machine has two off settings. One setting turns off all of the components in the espresso machine and the other turns off power to the complete espresso machine.

Display	Operating Procedure
	<ol style="list-style-type: none"><li>1 The following is the procedure for safely turning off the espresso machine.</li><li>2 Press and hold the Encoder Knob for 3 seconds. The display changes to the following:</li><li>3 This is the OFF setting used in the normal operating conditions.</li><li>4 During servicing or other conditions that warrant it, the main switch should be turned to the OFF position. 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.</li></ol>



## Accessing Programming Mode

### Programming Mode



Description
<ul style="list-style-type: none"><li>To change the values of any parameter the operator must first enter into the programming mode.</li><li>There are two levels within the programming mode that allow the programming of specific parameters.</li><li>The two programming levels are as follows:</li><li><b>Barista Programming</b> - The parameters contained within this level are ones the operator can change to affect the quality of the espresso.</li></ul>

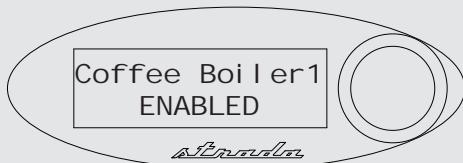
Display	Operating Procedure
   	<p><b>"Barista" Programming Level</b></p> <ol style="list-style-type: none"><li>While the espresso machine is on, press and hold the Encoder Knob. After approximately 10 seconds the following display appears.</li><li>This is the "Barista" programming level. To set the coffee boilers, to enable/disable the resistance of the cup warmer if present, and etc..</li><li>To exit the programming mode, scroll the menu, using the the Encoder Knob.</li></ol> <p><b>"Technical" Programming Level</b></p> <ol style="list-style-type: none"><li>While the espresso machine is off, press and hold theEncoder Knob. After approximately 10 seconds the following display appears.</li><li>This is the "Technical" programming level. Using the Encoder Knob to move between the available parameters, press the Encoder Knob to confirm.</li></ol> <p><b>Note:</b> You must scroll to the end of menu to exit the programming mode</p>

No password is required for access.

- 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.

## “Barista” Programming

### Coffee Boiler



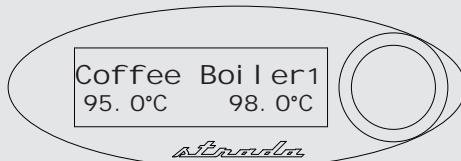
#### Description

- This parameter allows the operator to enable/disable the coffee boiler.

Display	Operating Procedure
   	<p><b>1</b> When the espresso machine is turned on, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.</p> <p><b>2</b> Releasing the Encoder Knob the following display appears.</p> <p><b>3</b> Rotate the Encoder Knob to select ENABLED or DISABLED, press the Encoder Knob to confirm the option and continue with the programming of the other parameters. Continue with the programming of the other parameters.</p> <p><b>4</b> To exit the programming mode, scroll the menu, using the Encoder Knob.</p>

## “Barista” Programming

### Coffee Boiler



#### Description

- This parameter allows the operator to program the coffee boiler temperature. Each group can have a different programming.

Display	Operating Procedure
    	<ol style="list-style-type: none"><li>1 When the espresso machine is turned on, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.</li><li>2 Releasing the Encoder Knob the following display appears.</li><li>3 Press the Encoder Knob until the following display appears.</li><li>4 Rotate the Encoder Knob to set the desired temperature, press the Encoder Knob to confirm the value. Continue with the programming of the other parameters.</li><li>5 To exit the programming mode, scroll the menu, using the the Encoder Knob.</li></ol>

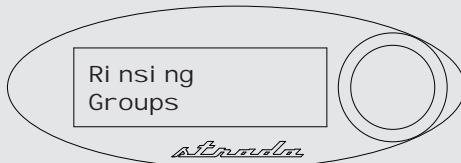


#### DANGER



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

### 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.
- To run the cleaning cycle, operate the brewing lever (part 4, page 5) only once.

Display	Operating Procedure
 117.6°C 00:00 0.8 B   Temperatures programmi ng   Coffee Boil er 1 ENABLED   Ri nsi ng Groups   117.6°C 00:00 0.8 B	<ol style="list-style-type: none"><li>1 When the espresso machine is turned on, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.</li><li>2 Releasing the Encoder Knob the following display appears.</li><li>3 Press the Encoder Knob until the following display appears.</li><li>4 Perform group washing.</li><li>5 To exit the programming mode, scroll the menu, using the the Encoder Knob.</li></ol>

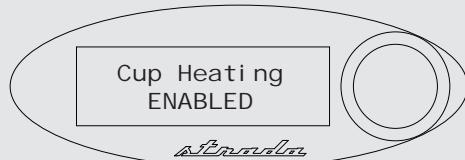


### DANGER

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

## "Barista" Programming

### Cup Warmer



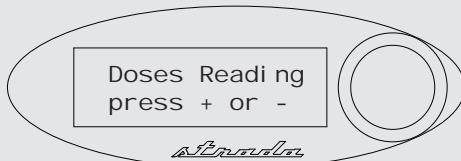
#### Description

- This parameter allows the operator to enable or disable the cups heating function.
- This function is displayed only on the models of espresso machine equipped with this accessory.

Display	Operating Procedure
    	<ol style="list-style-type: none"><li>1 When the espresso machine is turned on, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.</li><li>2 Releasing the Encoder Knob the following display appears..</li><li>3 Press the Encoder Knob until the following display appears.</li><li>4 Rotate the Encoder Knob to select ENABLED or DISABLED, press the Encoder Knob to confirm the option and continue with the programming of the other parameters.</li><li>5 To exit the programming mode, scroll the menu, using the the Encoder Knob.</li></ol>

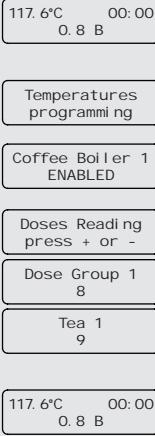
## “Barista” Programming

### Coffee Dose Counter

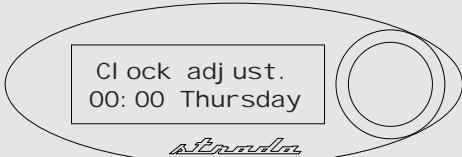


#### Description

- This parameter allows the operator to view the quantity of coffee and tea doses.
- This parameter displays different values:
  - Coffee doses for each group;
  - Tea doses.

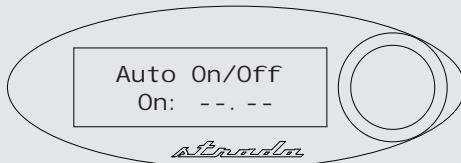
Display	Operating Procedure
	<ol style="list-style-type: none"><li>1 When the espresso machine is turned on, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.</li><li>2 Releasing the Encoder Knob the following display appears..</li><li>3 Press the Encoder Knob until the following display appears.</li><li>4 Rotate the Encoder Knob to display the doses of each group and of the tea.</li><li>5 To exit the programming mode, scroll the menu, using the the Encoder Knob.</li></ol>

## “Barista” Programming

Clock Adjust	Description												
 <p>The diagram shows a display panel with the text "Clock adjust. 00: 00 Thursday" and an encoder knob below it.</p>	<ul style="list-style-type: none"><li>This parameter allows the user to set the time of day and the day of the week.</li><li>This parameter is used to display time and is also used by the “Auto On/Off” parameter</li></ul>												
<table border="1"><thead><tr><th>Display</th><th>Operating Procedure</th></tr></thead><tbody><tr><td>117.6°C 00:00 0.8 B</td><td><ol style="list-style-type: none"><li>When the espresso machine is turned on, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.</li><li>Releasing the Encoder Knob the following display appears..</li><li>Press the Encoder Knob until the following display appears.</li><li>The first value will blink, use the Encoder Knob to set the clock and continue with the programming of the other parameters, press the Encoder Knob to confirm the value.</li><li>To exit the programming mode, scroll the menu, using the the Encoder Knob.</li></ol></td></tr><tr><td>Temperatures programming</td><td></td></tr><tr><td>Coffee Boiler 1 ENABLED</td><td></td></tr><tr><td>Clock Adjust 00:00 Thursday</td><td></td></tr><tr><td>117.6°C 00:00 0.8 B</td><td></td></tr></tbody></table>	Display	Operating Procedure	117.6°C 00:00 0.8 B	<ol style="list-style-type: none"><li>When the espresso machine is turned on, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.</li><li>Releasing the Encoder Knob the following display appears..</li><li>Press the Encoder Knob until the following display appears.</li><li>The first value will blink, use the Encoder Knob to set the clock and continue with the programming of the other parameters, press the Encoder Knob to confirm the value.</li><li>To exit the programming mode, scroll the menu, using the the Encoder Knob.</li></ol>	Temperatures programming		Coffee Boiler 1 ENABLED		Clock Adjust 00:00 Thursday		117.6°C 00:00 0.8 B		
Display	Operating Procedure												
117.6°C 00:00 0.8 B	<ol style="list-style-type: none"><li>When the espresso machine is turned on, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.</li><li>Releasing the Encoder Knob the following display appears..</li><li>Press the Encoder Knob until the following display appears.</li><li>The first value will blink, use the Encoder Knob to set the clock and continue with the programming of the other parameters, press the Encoder Knob to confirm the value.</li><li>To exit the programming mode, scroll the menu, using the the Encoder Knob.</li></ol>												
Temperatures programming													
Coffee Boiler 1 ENABLED													
Clock Adjust 00:00 Thursday													
117.6°C 00:00 0.8 B													

## “Barista” Programming

### Auto ON/OFF



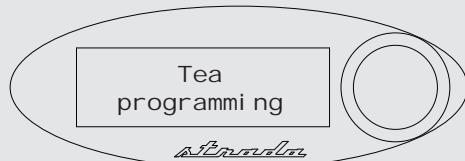
#### Description

- This parameter allows the operator 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 closed day.

Display	Operating Procedure
<p>The display sequence shows the following steps: 1. Initial display: 117.6°C 00:00 0.8 B 2. Temperatures programming 3. Coffee Boiler 1 ENABLED 4. Auto On/Off On: --- 5. Auto On/Off Off: --- 6. Closed On ----- 7. Final display: 117.6°C 00:00 0.8 B</p>	<ol style="list-style-type: none"><li>1 When the espresso machine is turned on, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.</li><li>2 Releasing the Encoder Knob the following display appears.</li><li>3 Press the Encoder Knob until the following display appears.</li><li>4 If the parameter is not set the espresso machine will be always turn on, move with the Encoder Knob o set the desired time, press the Encoder Knob to confirm the value and continue with the programming of the other parameters. Repeat this operation to set the other parameters.</li><li>5 To exit the programming mode, scroll the menu, using the Encoder Knob.</li></ol>

## “Barista” Programming

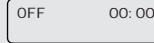
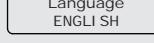
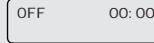
### Tea Dose



- This parameter allows the operator to program the amount of water (brewing amount) for the tea button.

Display	Operating Procedure
<p>117.6°C 00:00 0.8 B</p> <p>Tea programming</p>	<p><b>1</b> When the espresso machine is turned on, press and hold the tea button (item 7, page 5). After about 10 seconds the following screen is displayed.</p> <p><b>2</b> To set the brewing time, press the tea button to start, and then press it again to stop when the desired dose is achieved.</p>

## “Technical” Programming

Language	Description
	<ul style="list-style-type: none"><li>This parameter allows the technician to change the language of the display.</li></ul>
Display	Operating Procedure
   	<ol style="list-style-type: none"><li>When the espresso machine is turned off, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.</li><li>Releasing the Encoder Knob the following display appears.</li><li>Rotate the Encoder Knob to select a language, press the Encoder Knob to confirm the option.</li><li>To exit the programming mode, scroll the menu, using the the Encoder Knob.</li></ol>

## “Technical” Programming

### Coffee Boiler



#### Description

- 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.
- The OFFSET parameter is used to calibrate the coffee boiler temperature system to ensure the display temperature accurately

represents the temperature of the water exiting the group head.

- This parameter is preset at the factory based upon initial tests of this espresso machine.
- It is not recommended that this number is changed.
- Changes to this parameter can cause unexpected results.
- It is important to write down this value before making changes to be sure you can return to the factory programming if unexpected results occur. Each machine may have a different value as it is set individually.

Display	Operating Procedure
    	<ol style="list-style-type: none"><li>1 When the espresso machine is turned off, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.</li><li>2 Releasing the Encoder Knob the following display appears.</li><li>3 Press the Encoder Knob until the following display appears.</li><li>4 Rotate the Encoder Knob to set the desired value, press the Encoder Knob to confirm the value. Continue with the programming of the other parameters.</li><li>5 To exit the programming mode, scroll the menu, using the the Encoder Knob.</li></ol>

## “Technical” Programming

### Coffee Boiler



#### Description

- To properly calibrate the pressure of any espresso machine it is important to measure the pressure of the water exiting the group by means of an external pressure measuring device. The difference of the display pressure and the measured temperature may be compensated by use of the “Offs. P.Boiler” parameter.
- The OFFSET parameter is used to calibrate the coffee boiler pressure system to ensure the display pressure accurately represents

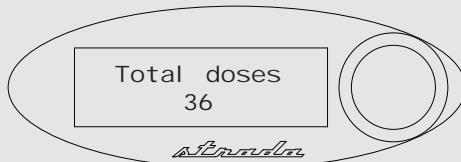
the pressure of the water exiting the group head.

- This parameter is preset at the factory based upon initial tests of this espresso machine.
- It is not recommended that this number is changed. Changes to this parameter can cause unexpected results.
- It is important to write down this value before making changes to be sure you can return to the factory programming if unexpected results occur. Each machine may have a different value as it is set individually.

Display	Operating Procedure
OFF 00:00	<b>1</b> When the espresso machine is turned off, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.
OFF 00:00 Techni cal	<b>2</b> Releasing the Encoder Knob the following display appears.
Language ENGLI SH	<b>3</b> Press the Encoder Knob until the following display appears.
Offs. P. Boiler 1 0.0	<b>4</b> Use the Encoder Knob to reach the value that you want to set, press the Encoder Knob to continue with the programming of the other parameters. In the case of espresso machine with 3 groups you can set the offset also on the coffee boiler 2 and 3.
OFF 00:00	<b>5</b> To exit the programming mode, scroll the menu, using the the Encoder Knob.

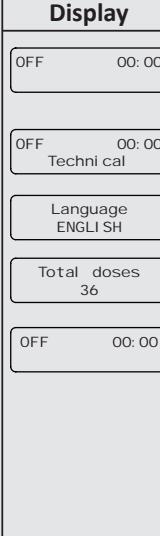
## “Technical” Programming

### Coffee Dose Counter



#### Description

- This parameter allows the technician to review the total coffee doses.

Display	Operating Procedure
 A vertical sequence of six small rectangular displays. From top to bottom: 1. 'OFF' above '00:00'. 2. 'OFF' above '00:00' with 'Techni cal' written below it. 3. 'Language' above 'ENGLI SH'. 4. 'Total doses' above '36'. 5. 'OFF' above '00:00'. 6. A blank white space.	<p><b>1</b> When the espresso machine is turned off, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.</p> <p><b>2</b> Releasing the Encoder Knob the following display appears.</p> <p><b>3</b> Press the Encoder Knob until the following display appears.</p> <p><b>4</b> This parameter displays the total coffee doses of the espresso machine.</p> <p><b>5</b> To exit the programming mode, scroll the menu, using the the Encoder Knob.</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 “Change H2O Filter” will be displayed.
- A value of 0 (zero) disables the filter alarm parameter.

Display	Operating Procedure
OFF 00:00	<b>1</b> When the espresso machine is turned off, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.
OFF 00:00 Techni cal	<b>2</b> Releasing the Encoder Knob the following display appears.
Language ENGLI SH	<b>3</b> Press the Encoder Knob until the following display appears.
Change H2O Filter 0 liters	<b>4</b> Rotate the Encoder Knob to set the desired value and continue with the programming of the other parameters
OFF 00:00	<b>5</b> To exit the programming mode, scroll the menu, using the the Encoder Knob.

## “Technical” Programming

### Water Flow cc/sec



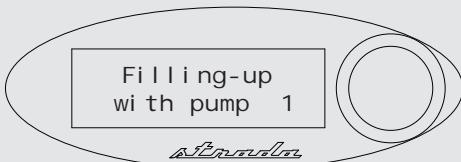
#### Description

- This parameter allows the technician to set the value that will enable the espresso machine to calculate the consumption of the litres for the replacement of the water filter.

Display	Operating Procedure
    	<ol style="list-style-type: none"><li>1 When the espresso machine is turned off, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.</li><li>2 Releasing the Encoder Knob the following display appears.</li><li>3 Press the Encoder Knob until the following display appears.</li><li>4 This parameter is used to set the ratio between water and time necessary for the calculation of the replacement of the water filter.</li><li>5 To exit the programming mode, scroll the menu, using the the Encoder Knob.</li></ol>

## “Technical” Programming

### Steam Boiler



#### Description

- The parameter filling WITH PUMP 1 or WITH PUMP 2 allows the technician to select the activation of the water pump during the automatic filling cycle of the service boiler.
- Only under unusual circumstances would the option of “WITHOUT PUMP” be chosen.
- The electronics installed in this espresso machine give priority to the brew boiler for pressure. The activation of the auto-fill cy-

cle during the brewing process can reduce the overall dispensing pressure in the brew boiler.

- During the auto-fill cycle, if a brew cycle is chosen, the auto-fill cycle is delayed until all brew cycles are complete.

Display	Operating Procedure
OFF 00:00	<b>1</b> When the espresso machine is turned off, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.
OFF 00:00 Techni cal	<b>2</b> Releasing the Encoder Knob the following display appears.
Language ENGLI SH	<b>3</b> Press the Encoder Knob until the following display appears.
Filling-up wi th pump 1	<b>4</b> Move the Encoder Knob to select WI TH PUMP 1, WI TH PUMP 2 or WI THOUT PUMP, press the Encoder Knob to confirm the option.
OFF 00:00	<b>5</b> To exit the programming mode, scroll the menu, using the the Encoder Knob.

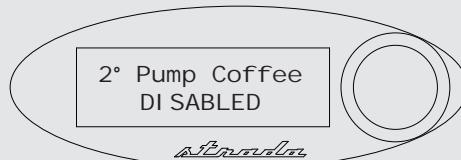


#### DANGER

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

## “Technical” Programming

### Steam Boiler



#### Description

- This parameter allows the technician to enable or disable the operation of the second coffee pump.

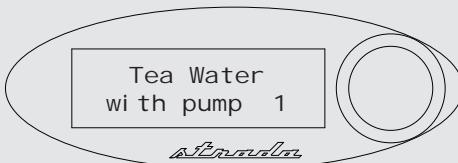
Display	Operating Procedure
OFF 00:00	<b>1</b> When the espresso machine is turned off, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.
OFF 00:00 Techni cal	<b>2</b> Releasing the Encoder Knob the following display appears.
Language ENGLI SH	<b>3</b> Press the Encoder Knob until the following display appears.
2° Pump Coffee DI SABLED	<b>4</b> Rotate the Encoder Knob to select ENABLED or DI SABLED, press the Encoder Knob to confirm the option
OFF 00:00	<b>5</b> To exit the programming mode, scroll the menu, using the the Encoder Knob.

**DANGER**

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

## “Technical” Programming

### Tea Brewing



#### Description

- This parameter allows the technician to select the type of the tea brewing WITH PUMP 1, WITH PUMP 2 or WITHOUT PUMP.
- Only under unusual circumstances would the option of “WITHOUT PUMP” be chosen.
- The electronics installed in this espresso machine give priority to the brew boiler for

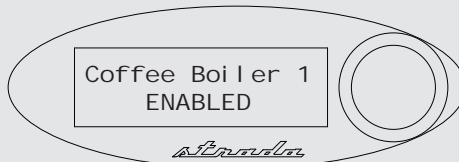
pressure. The activation of the auto-fill cycle during the brewing process can reduce the overall dispensing pressure in the brew boiler.

- During the auto-fill cycle, if a brew cycle is chosen, the auto-fill cycle is delayed until all brew cycles are complete.

Display	Operating Procedure
OFF 00:00	<b>1</b> When the espresso machine is turned off, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.
OFF 00:00 Techni cal	<b>2</b> Releasing the Encoder Knob the following display appears.
Language ENGLI SH	<b>3</b> Press the Encoder Knob until the following display appears.
Tea Water wi th pump 1	<b>4</b> Rotate the Encoder Knob to select WI TH PUMP 1, WI TH PUMP 2 e WI THOUT PUMP, press the Encoder Knob to confirm the option.
OFF 00:00	<b>5</b> To exit the programming mode, scroll the menu, using the the Encoder Knob.

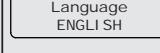
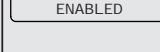
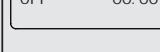
## “Technical” Programming

### Coffee Boiler

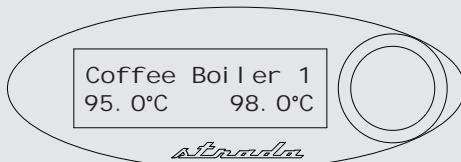


#### Description

- This parameter allows the operator to enable/disable the coffee boiler.

Display	Operating Procedure
    	<ol style="list-style-type: none"><li>1 When the espresso machine is turned off, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.</li><li>2 Releasing the Encoder Knob the following display appears.</li><li>3 Press the Encoder Knob until the following display appears.</li><li>4 Rotate the Encoder Knob to select ENABLED or DISABLED, press the Encoder Knob to confirm the option and continue with the programming of the other parameters. Continue with the programming of the other parameters.</li><li>5 To exit the programming mode, scroll the menu, using the the Encoder Knob.</li></ol>

### Coffee Boiler



#### Description

- This parameter allows the operator to program the coffee boiler temperature. Each group can have a different programming.

Display	Operating Procedure
OFF 00:00	<b>1</b> While the espresso machine is turned off, press and hold the Encoder Knob. After approximately 10 seconds the following display appears.
OFF 00:00 Techni cal	<b>2</b> Releasing the Encoder Knob the following display appears.
Language ENGLI SH	<b>3</b> Press the Encoder Knob until the following display appears.
Coffee Boiler 1 95. 0°C 98. 0°C	<b>4</b> Rotate the Encoder Knob to set the desired temperature, press the Encoder Knob to confirm the value. Continue with the programming of the other parameters.
OFF 00:00	<b>5</b> To exit the programming mode, scroll the menu, using the the Encoder Knob.

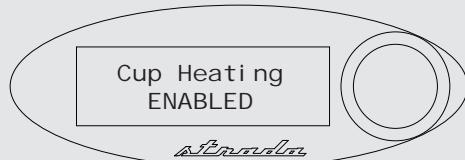


#### DANGER

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

## “Technical” Programming

### Cup Warmer

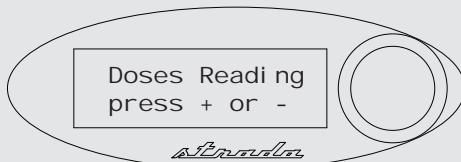


#### Description

- This parameter allows the operator to enable or disable the cups heating function.
- This function is displayed only on the models of espresso machine equipped with this accessory.

Display	Operating Procedure
    	<ol style="list-style-type: none"><li>1 When the espresso machine is turned off, press and hold the Encoder Knob. After about 10 seconds the following screen is displayed.</li><li>2 Releasing the Encoder Knob the following display appears.</li><li>3 Press the Encoder Knob until the following display appears.</li><li>4 Rotate the Encoder Knob to select ENABLED or DISABLED, press the Encoder Knob to confirm the option and continue with the programming of the other parameters.</li><li>5 To exit the programming mode, scroll the menu, using the the Encoder Knob.</li></ol>

### Coffee Dose Counter



#### Description

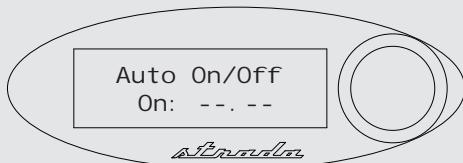
- This parameter allows the operator to view the quantity of coffee and tea doses.
- This parameter displays different values:
  - Coffee doses for each group;
  - Tea doses.

Display	Operating Procedure
      	<p><b>1</b> While the espresso machine is turned off, press and hold the Encoder Knob. After approximately 10 seconds the following display appears.</p> <p><b>2</b> Releasing the Encoder Knob the following display appears.</p> <p><b>3</b> Press the Encoder Knob until the following display appears.</p> <p><b>4</b> Rotate the Encoder Knob to display the doses of each group and of the tea.</p> <p><b>5</b> To exit the programming mode, scroll the menu, using the the Encoder Knob.</p>

## “Technical” Programming

Clock Adjust	Description
	<ul style="list-style-type: none"><li>This parameter allows the user to set the time of day and the day of the week.</li><li>This parameter is used to display time and is also used by the “Auto On/Off” parameter</li></ul>
	<ul style="list-style-type: none"><li>There are 3 changeable values within this parameter:<ul style="list-style-type: none"><li>Hour;</li><li>Minute;</li><li>Day of week.</li></ul></li></ul>

### Auto ON/OFF



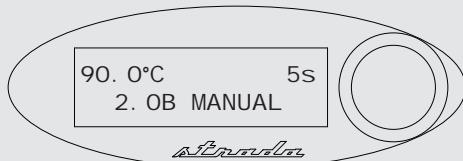
#### Description

- 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 one closed day.

Display	Operating Procedure
<p>OFF 00:00</p> <p>OFF 00:00 Techni cal</p> <p>Language ENGLI SH</p> <p>Auto On/Off On: ---</p> <p>Auto On/Off Off: ---</p> <p>Closed on -----</p> <p>OFF 00:00</p>	<p><b>1</b> While the espresso machine is turned off, press and hold the Encoder Knob. After approximately 10 seconds the following display appears.</p> <p><b>2</b> Releasing the Encoder Knob the following display appears.</p> <p><b>3</b> Press the Encoder Knob until the following display appears.</p> <p><b>4</b> If the parameter is not set the espresso machine will be always turn on, move with the Encoder Knob o set the desired time, press the Encoder Knob to confirm the value and continue with the programming of the other parameters. Repeat this operation to set the other parameters.</p> <p><b>5</b> To exit the programming mode, scroll the menu, using the the Encoder Knob.</p>

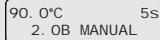
## “Pressure Profile” Programming

### Manual Profile



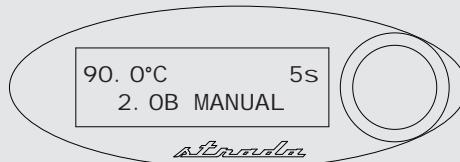
### Description

- This function allows the operator to manually brew the coffee, varying the water pressure on the coffee.

Display	Operating Procedure
 90. 0°C 5s 2. OB MANUAL	<p><b>1</b> When the espresso machine is on and with the parameter set to MANUAL, you can brew the coffee dose by actuating the brewing lever (part 4, page 5).</p> <p><b>2</b> To stop the brewing of the coffee dose, it is necessary to bring the dispensing lever back to the home position.</p>

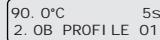
## “Pressure Profile” Programming

### Automatic Profile



### Description

- Four different profiles are factory set (see also the contents of the USB stick).
- This function allows the operator to store four different pressure profiles, overwriting those already set at the factory.

Display	Operating Procedure
 	<p><b>1</b> When the espresso machine is on and with the parameter set to PROFILE, you can store the pressure profile.</p> <p><b>2</b> Press and hold the button  on the group where you want to store the pressure profile, then PROFILE No. will flash on the display. Now the machine is ready to be set. At the end, press the button again . The machine is ready to repeat the profile.</p> <p>All the profiles that will be set with this procedure on the 1st group will be repeated on the others.</p>

## The STRADA Explained

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A Few crucial facts you should understand before operating the machine.

The STRADA is a powerful tool which acts very differently, when compared with other espresso machines.

### Let's consider all the main differences one by one:

**Temperature:** the display of the STRADA shows you a value that is an assumption of the temperature of the water flowing through the coffee puck.

However the thermocouple is placed in the boiler (and not in the group), very close to both the heating element and the water inlet. This is the most volatile part of the boiler and is both the coolest and hottest point.

Since the probe sits in the most inconsistent spot, the CPU reacts faster and more precisely depending on the temperature changes, thus making the machine perform more consistently.

Still the temperature at the group is estimated by setting a default -3°C offset on the actual probe reading. Therefore, if the operator sets the temperature at 96°C, the display will show 93°C.

**Pressure:** as with the temperature, the displayed pressure on the STRADA is the actual pressure on the coffee puck and not the pressure at the pump, (as in ALL other espresso machines). This explains why the display shows low-pressure readings when the group is flushed with no portafilter or coffee packed in the basket.

The coffee puck itself is making the pressure build up, depending on its permeability and resistance. This is controlled by the operator through adjustments in grinding, dosing and tamping.

**How the STRADA follows a defined pressure profile:** Each group of the STRADA has a dedicated 24V DC gear pump, which spins at a variable speed, dispensing variable water flow-rate and pressure.

The operator controls the pump's speed/pressure through a paddle that activates a potentiometer, which sets the voltage sent to the pump.

When the STRADA follows a set profile, the CPU reads a pressure that is very close to that in the coffee puck, therefore it is very susceptible to minor changes in grinding, dosing and tamping.

If, for instance, the operator tamps slightly weaker, or packs in the basket a smaller quantity of ground coffee, the water will encounter less resistance in its path, therefore the pump will have to spin faster (consequently delivering more water) in order to reach the set pressure.

This will result in a totally different cup of espresso.

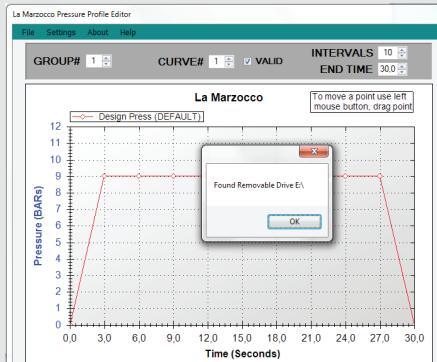
In order to avoid this effect, it is crucial to weigh/dose the ground coffee in the basket accurately, and to calibrate the tamping pressure, either by using dynamometric tampers or tamping on a scale.

**Volume:** Since, unlike many other espresso machines, the STRADA delivers the water to the coffee in a set time, rather than a set volume, small changes in grind, dose or tamp may result in differing volumes by shot, though the shot time will remain the same.

## Pressure Profile Editor

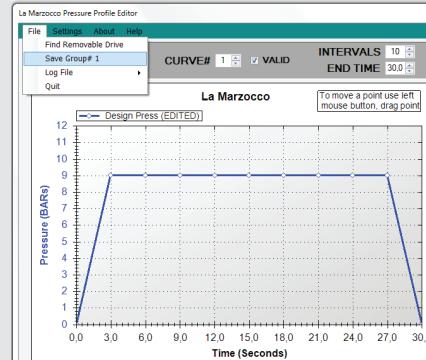
### HOW TO DRAW YOU PRESSURE PROFILES:

1. Install the pressure profile editor.
2. **Save all the files** that you find into the USB pen **to your pc**.
3. **Format the USB pen** that you will use for uploading the profiles on your STRADA.
4. Go to file -> **find removable drive** -> found, ok!



5. Choose which is the **group** where you want to upload your profiles
6. Choose which is the number of your profile (**curve**). max 4 profiles per group.
7. Choose the numbers of **intervals** that you need in order to create your profile. (min. 2 – max 15).

8. Choose the brewing time (**end time**) in order to create your own profile. (recommended  $25\pm 5$  sec.)
9. Start **drawing your curve** by changing the position of the interval points (the first 3 sec. need a pressure below 4 bar).
10. After you finished 4 profiles of a group go to **file-> save group#nr.** and the editor will automatically save your profile on the USB pen (if you need repeat from step 4 to 6 in order to create other 4 profiles on another groups).



11. **You can upload to your STRADA at least 1 group.**
12. Safe remove the USB pen from your pc.

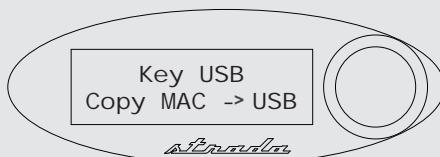
13. **Plug in the USB pen** to your STRADA.
14. **Copy from USB->MACHINE** press the encoder to confirm.



*Remember that by doing this you will erase the old profiles already uploaded on your machine. if you want to re-upload the standard STRADA profiles use the 3 file .cof that you have found into the USB pen.*

## HOW TO COPY PROFILES FROM THE MACHINE TO THE USB PEN:

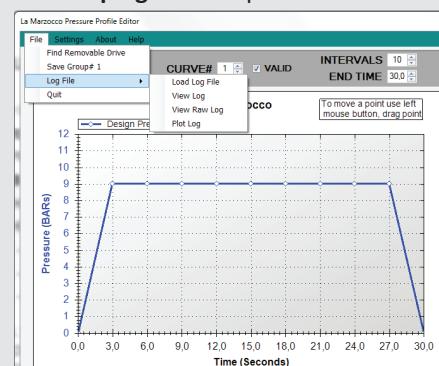
1. **Format the USB pen** that you will use for copying the profiles from the machine.
2. **Plug in the USB pen** to your STRADA.
3. **Copy from MACHine -> USB** press the encoder to confirm.



4. When the copy is finished the machine give you a message "ended".
5. **Unplug** the usb pen from the STRADA.

## HOW TO CHECK YOUR PROFILES:

1. **Plug in the USB pen** to your STRADA
2. **Do not press the encoder** until the message copy from mac->USB will disappear.
3. **Start to brewing coffee** following your needs.
4. **Unplug the USB pen**.



5. **Plug in the USB pen** to your pc.
6. Press **file -> find removable drive**.
7. Press **file -> log file -> load log file**.
8. Press **file -> log file -> view log**.

This visualization will show you a **spreadsheet with your profiles divided in seconds**. the unit of measure for the **motor** is in **V** and for the **pump** is in **bar**. if you want to see the **raw figures** repeat the steps above but instead of pressing **view log** press **view raw log**. otherwise you can have a **graphic visualization** of your profile just by pressing at step 8 instead of **view log** **plot log**.

**ENJOY THE STRADA!**



