● barista

presso bean E1 / E2

**Installation & Maintenance
Specialist partners / Technicians**

**Version 0.9 (provisional) March 2006
Software Version: BAED1C 23.03.06**

Light and easy creamy milk preparation
with our automatic Latte Aero Mixx.

70% of all specialist coffees contain frothy milk. Our new Latte Aero Mixx makes frothing milk and hygiene child's play.

- Forget complicated steam diffusers, milk splashes and open milk cartons.
- No more hygiene problems, cleaning tubes, constant filling up.
- With Latte Aero Mixx you get safety, cleanliness and freshness automatically.
- The required milk is guaranteed to be freshly prepared with each delivery.
- With the Latte Aero Mixx system you get a light, fine-pored, thick cappuccino covering. Creamy, rich and full of milky flavour.

How does the Latte-Aero-Mixx work?

The concept originates from the Italian coffee bar experts, the baristas.
For a creamy taste experience from mixed milky drinks (milkshakes) these gastronomy professionals use high-rev mixer systems. Our automatic Latte-Aero-Mixx system works using 16,000-rev mixers with oxygen to guarantee a creamy sensation.
The natural basis is 100% quality milk in the form of high-grade gastronomic dried milk*. The milk is liquefied again with hot filtered water at 85°C and is then revved up in the Latte-Aero-Mixx system.

The quantity ratio of normal milk to dried milk guarantees a 10-fold time-saving. No maintenance, filling up, cleaning and storing. Even fridges for milk storage are no longer necessary. A fine-pored, milky taste sensation.
A completely successful Latte Macchiato. About 10g of dried milk produces a glass of creamy milk. A container full is enough for around 50 cappuccinos.

*Raw milk is briefly heated, gently concentrated and directly spray- or freeze-dried (dehydration).

Contents

1. General Information on the Appliance and Safety Aspects

1.1

Description of features

The features of the machine are designed only for the production of coffee, chocolate, tea or other drink products that are suitable for vending.

Typically used to provide for clients, guests and staff.

The installation, filling and cleaning are carried out in accordance with this instruction manual by trained staff of the specialist partner who have been verified by Servomat Steigler.

In the event of a change in the coffee or product quality, a new adjustment by the Servomat specialist partner is required.

The appliance is designed to be located in dry, closed rooms with no environmental influences (e.g. strong vibrations).

The size, capacity and the connected filling, cleaning and service costs allow a turnover for the Barista pb E1 / E2 model of up to 50 portions every day, a maximum of 36,000 portions in 2 years.

If untrained members of staff fill and clean the appliance, sufficient briefing by the Servomat specialist partner is considered to be necessary.

In the event of wilful damage or improper handling (e.g. attempts to manipulate with coins, tokens, or non-cash means of payment), the liability for defects is ruled out.

Consumables are parts that are subject to natural wear and tear or have a naturally limited lifetime. These parts may fail during the period of limitation for claims for defects of 2 years without there being a defect in the legal sense. The following parts are classified in this way: O-rings/illuminants/V-rings/grinders /mixer motor/ valves and water heaters in the event of calcification.

The use of water softeners/filters, such as BRITA water filters, in installation areas with more than 9° of German water hardness is highly recommended. A considerable amount of the functions of our coffee machines are directly connected to water-bearing parts, such as valves, boilers and heaters.

Regular servicing is to be carried out in accordance with the attached checklist (at least twice a year, or after every 5000 servings). During this servicing the consumable items for the overall maintenance of function according to the attached checklist must be changed.

The directions for cleaning and hygiene in this instruction manual must be observed to guarantee the faultless functioning of our machines.

Within the 2-year manufacturer's warranty claims under the warranty made against the supplier/manufacturer can only be validated by service verifications.

Beimerstetten, 29.03.06
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1. General Information on the Appliance and Safety Aspects

| | 1.2 |

Servicing checklist

The following work must be carried out within the scope of the servicing directions:

What has to be done?	Which parts?
Clean the water tank and filter canister Change the inside of the O-ring connection Change the water filter cartridge Change the fixed water supply of the water filter cartridge	Water tank supply or fixed water connection
Dismantle and clean the boiler, and descale if necessary Replace the seals of the boiler lid Clean and if necessary descale the temperature sensor	Boiler
Dismantle, clean and if necessary descale the valve block Replace the plungers of all steam valves	Valve block
Clean grinder and replace the grinding blades	Grinder
Dismantle and clean brewer Replace filters and O-ring seal	Brewer
Dismantle and clean the mixing bowl Replace O-ring mixer flange Replace V-ring mixer motor Replace O-ring socket mixing bowl Replace mixer blade Check mixer motor, change if necessary	Mixer unit
Dismantle and clean ventilator Dismantle and clean ventilation duct Dismantle and clean air pipe	Ventilator
Check products, if necessary clean product container Clean product chute	Product container
Clean drip tray and coffee dregs drawer	Drip tray and coffee dregs drawer
Inspect all water and electrical connections	Water and electrical mains connections
Check water and product dosing Check and if necessary adjust flow of the coffee Check temperature of the instant boiler and flash heater Final check and test run; if required, acceptance of coins	Dosing, temperature and function

1. General Information on the Appliance & Safety Aspects

1.3

Technical Specifications

Dimensions	Height.……………………………………………………………………	620 mm
	Width.………………………………………………………………………	300 mm
	Depth.………………………………………………………………………	455 mm
Weight	Empty.………………………………………………………………………	28kg
	Full.…………………………………………………………………………	33kg
Electrical connection	Electrical power requirement.…………………………………………	230 V 50Hz 16A
	Max. power consumption.………………………………………………	2000 VA
Transformer	Primary.……………………………………………………………………	230 V (black)
	Secondary.…………………………………………………………………	24 V (blue) 90 VA – 100 VA, 8.5 V (red) 10 VA
Boiler	Heating element requirement.…………………………………………	1300 VA
	Capacity.………………………………………………………………......	1.7 litres
	Heating up time.…………………………………………………………	approx. 7 minutes
Flash heater	Connection requirement.………………………………………………	230 V / 700 VA
Temperature regulation	Electrical.…………………………………………………………………	PTC sensor
Product motor	Supply voltage.…………………………………………………………	24 V DC
	Running speed.…………………………………………………………	85 Upm
Mixer motor	Supply voltage.…………………………………………………………	24 V DC
	Running speed.…………………………………………………………	2400 → 16,000 Upm
Valves	Supply voltage.…………………………………………………………	24 V DC
Water tank (standard)	Capacity.…………………………………………………………………	approx. 3.5 litres
	Capacity of BRITA filter cartridge.…………………………………	approx. 145 litres / 10° kH or 4 weeks
Fixed water supply (option)	Water pipe pressure.……………………………………………………	1 → 8 Bar
	Connection.………………………………………………………………	3/8" or 3/4" outside thread
Illuminated doors	Fluorescent tube length 210 mm, diameter 16 mm.…..………………	230 V / 6 Watt
Miscellaneous	Flash card programming with PC software.…………………………	
	Flash light (blinking LED display during the production process).…………………………………………………………..………..	
Bean container	Capacity.…………………………………………………………………	approx. 0.6 kg *
Cocoa container (slim)	Capacity.…………………………………………………………………	approx. 0.9 kg *
Milk container	Capacity.…………………………………………………………………	E/1: approx. 0.6 kg * E/2: approx. 1.2 kg *

* Please note that weight indications are product-specific and merely show reference values.
Not all products of a product group have the same specific weight.

DECLARATION OF COMPLIANCE

Rhea Projects S.p.A. declares that this machine has been designed and manufactured according to guidelines and safety standards:

1. General Appliance Information and Safety Aspects

1.4

Name plate

The name plate is an important information label.
To order replacement parts please always provide appliance type and appliance number.

The name plate is situated on the inside of the appliance on the right. The name plate is defined as follows:

Rheaprojects

Rhea Projects S.r.l
Via Trieste, 49 I - 21042 Caronno P.lia (VA) Italia
Società del Gruppo Rhea Vendors

Modello :   BARISTA E/1 230 AA
                      230 V ~ 50 Hz 1100 W
Codice: D10005EC21040
Matricola: 06020274

CE

Manufacturer data

Appliance data

Appliance number

Appliance type   Barista

Model design   E = Bono / espresso
                                                          1 = number of instant
                                                             product containers

This handbook is a component of the appliance and must always be ready for reference near the machine, until the disposal of the appliance

If the handbook is misplaced or damaged you must inform the manufacturer, when reordering, of the identification data, which you will find on the name plate.

1. General Appliance Information and Safety Aspects

1.5

Safety instructions

This appliance was manufactured with consideration of all safety aspects. However, only those who are over 18 may be entrusted with the independent assembly and operation of the machine. Only those who are qualified by training and experience of dealing with these or similar machines, and who know the relevant safety and accident prevention regulations and thereby recognise the dangers and can avert them, are suitable.

Before any repair work, it is essential for the mains plug to be disconnected.

This appliance was developed in accordance with the following European safety regulation:

EN 60 335 – 1

"Safety of electrical household appliances and similar devices".

1. General Appliance and Safety Aspects

1.6

Warnings

Beware: this appliance contains hot parts. On certain parts of the appliance the temperature can exceed 90°C.

Never operate the appliance with a defective supply.

Never immerse the appliance in water

To clean the appliance without the cleaning programme, always disconnect the mains plug from the power socket

Never leave children to work with the appliance unattended

1. General Appliance and Safety Aspects

1.7

Safety devices

The safety devices listed below are integrated as standard into the Barista (E1/E2):

- Door contact switch
- Manually controlled safety temperature limiter for the boiler
- Timed protection for the pump
- Timed protection for the drive motor of the coffee brewing set
- Timed protection for the coffee grinder
- Brewing water inlet with fuse available
- Brewer fuse not properly assembled or not available

1. General Appliance and Safety Aspects

1.8

Please note

Pump	Running empty and built-up pressure damage the pump
	Note:
	- Coffee grains must not be too finely ground
	- The filters of the brewing unit must not be blocked
	- Do not fill the water tank with hot water

Grinder	It becomes blocked or can get stuck
	Note:
	- Coffee grains must not be too finely ground
	- Clean the appliance periodically
	- Use suitable coffee (vending machine quality)

Brewer	It gets blocked if the cleaning programme is not carried out
	Note:
	- Carry out cleaning programme daily
	- Carefully clean the filters
	- Use suitable coffee (vending machine quality)

1. General Appliance and Safety Aspects

1.9

Accessories

Choose from our diverse range of the finest accessories,
such as …

- Cup warmers
- Cups (coffee, espresso)
- "Coffee To Go" takeaway cartons
- Sugar stirrers
- Pack of Barista replacement parts
- PressoBean cleaning tablets
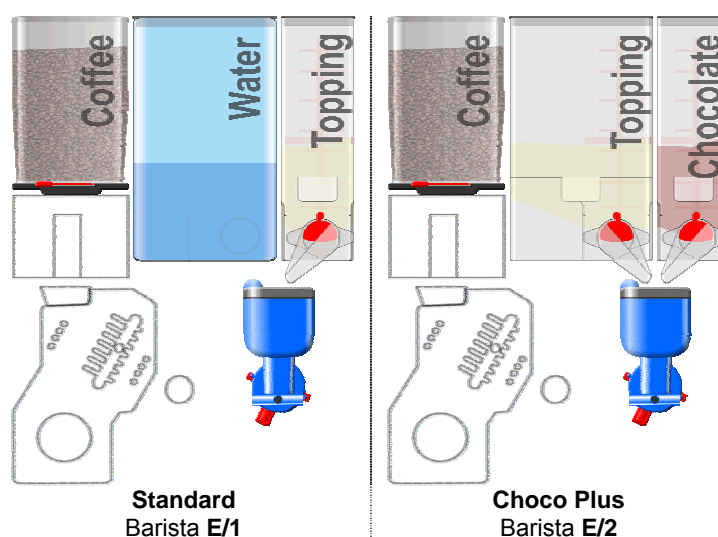
1. General Appliance and Safety Aspects

1.10

Appliance configuration

We deliver the Barista pressobean from the factory in two basic versions.

E/1 indicates a Barista with the pressobean brewing system (whole beans) in the standard configuration with water tank and slim topping container (see label in section 1.4).

E/2 indicates a Barista with the pressobean brewing system (whole beans) in the "Choco Plus" version with fixed water connection and wide topping container (see label in 1.4).

Standard
Barista **E/1**

Choco Plus
Barista **E/2**

1. General Appliance and Safety Aspects

1.11

Options

Option	E/1 Standard	E/1 Optional	E/2 Standard	E/2 Optional
Cappuccino	**1**		**1**	
Cafe Creme	**2**		**2**	
Latte Macchiato	**3**		**3**	
Cafe Latte	**4**		**4**	
Espresso	**5**		**5**	
Cre Moca	**6**		**-**	
MoccaCino	**-**		**6**	
Choco	**-**		**7**	
Latte	**7**		**-**	
Latte 200ccm	**-**	**8**	**-**	**8**
Hot Water	**8**		**8**	

Numbers indicate the option buttons or menu buttons.

2. Overview of Components

2.1

Front

Practical cup storage (unheated)

Display

Stylish-looking illuminated front

Pulse rate light during preparation

Drip tray

Flash card slot

Easily changeable product label

Direct dial/programming buttons

Cup rest

Coffee bean container

Grinder

Door seal

Brewer

Dregs container

Door contact switch

Product container

Product chutes

Mixing bowl Latte-Aero-Mix

Product outlet

2. Overview of Components

2.2

Back

Mains socket

Ventilation fan

¾ inch BSP water inlet valve

Mains switch

Fuses

Ventilator of the mixing bowl

Relay card

CPU

Extraction pipe

Product motors

Mixer motor

Instant pumps

Flash heater

Instant boiler

PressoBean pump

Mains socket with noise filter

Ventilation fan

Transformer

Ventilator Mixing bowl

Fuses

Surge tank

Brewer motor

¾ inch inlet filter
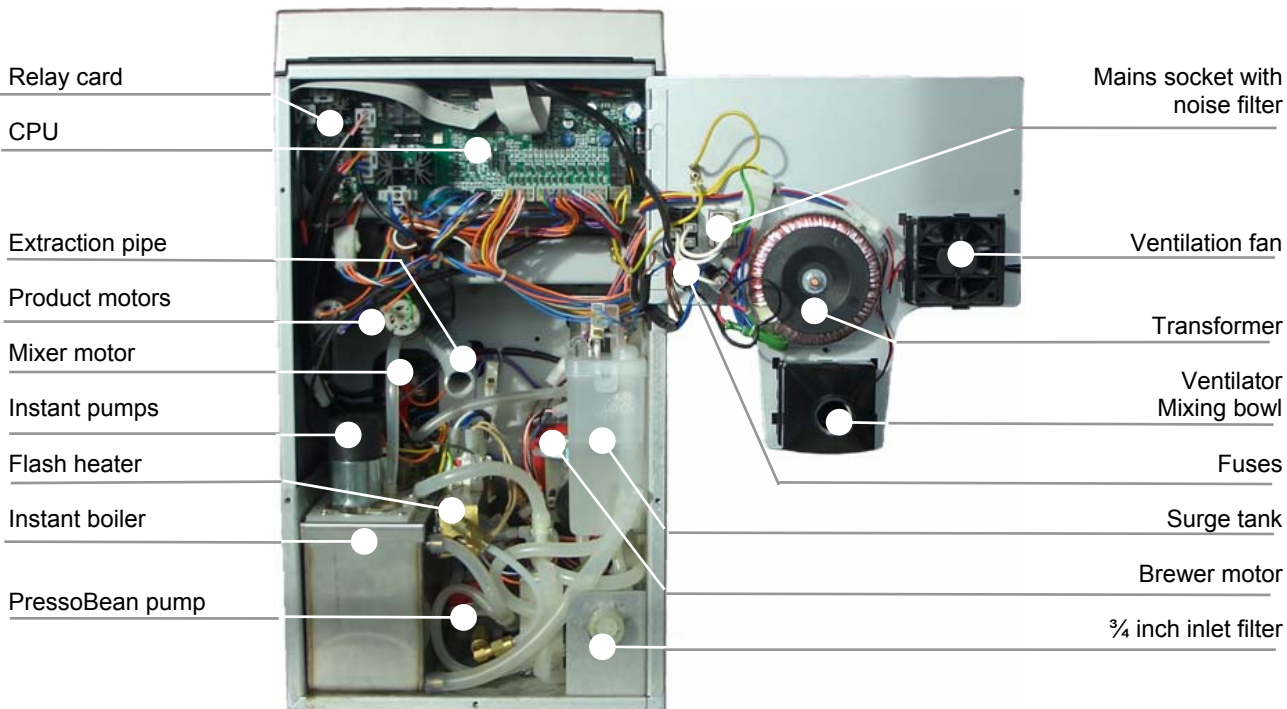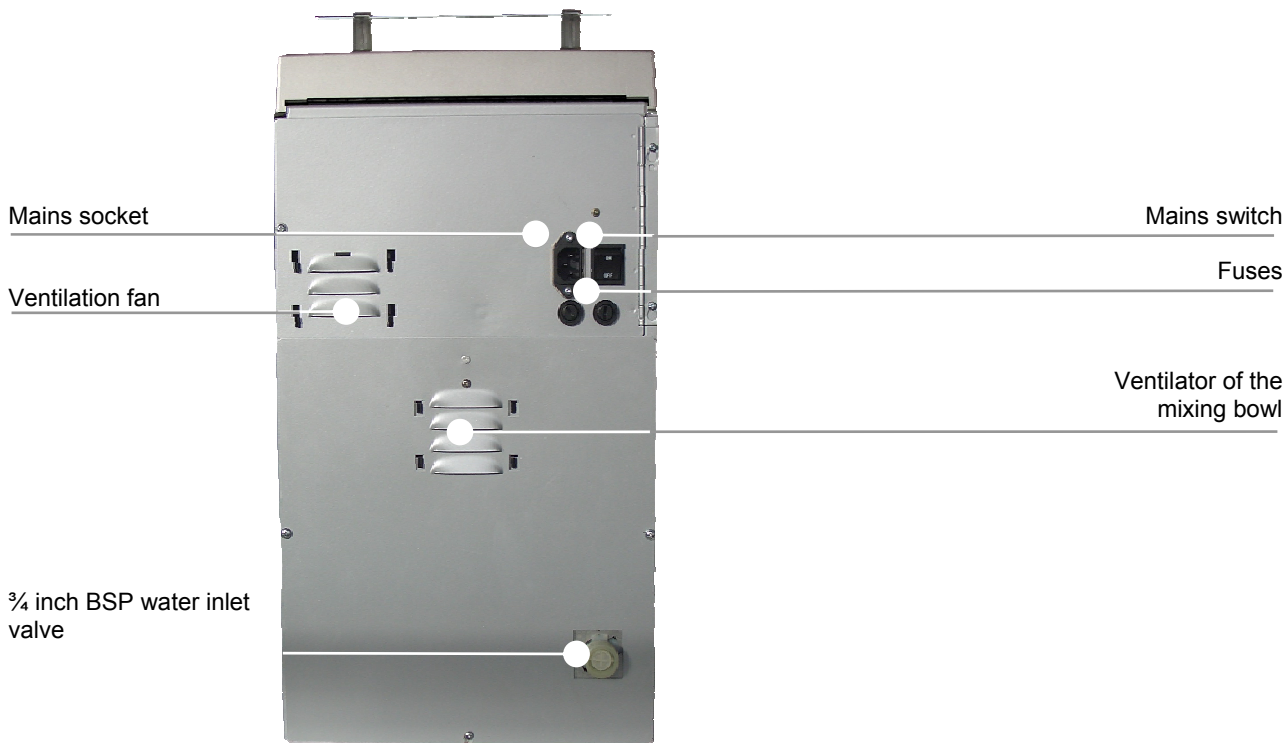
2. Overview of Components

2.3

Boiler set

Heating instant boiler
1300 Watts

Instant pumps

STB flash heater

Flash heater with
700 Watts of heating

Instant boiler

Float switch

Float

Surge tank

Pump

Water inlet valve
E1: Inlet valve
E2: Double inlet valve

Outlet valve
Coffee water

STB instant (x2)

Instant temperature
sensor

Running dry protection

Water pump for instant
tea water

Water pump for instant
mixing bowl

Instant boiler heater
1300 Watts

STB flash heater

Inlet valve (only E1)

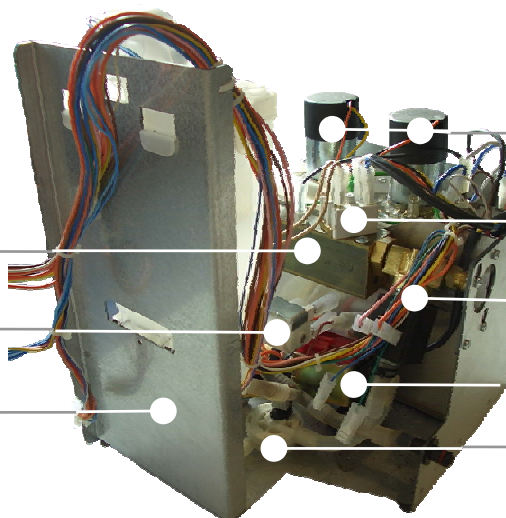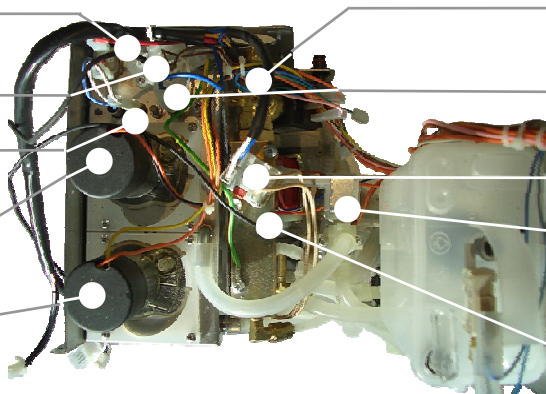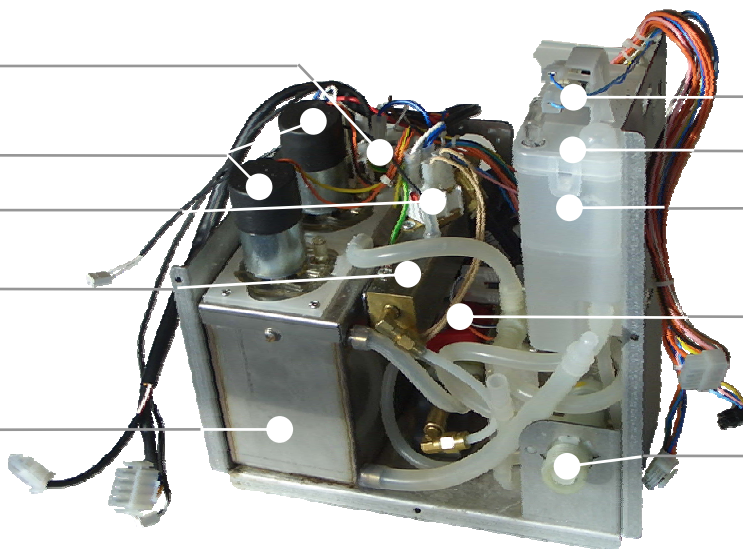Temperature sensor for
flash heater

Flash heater

Inlet valve
 (only E1)

Boiler group casing

Instant pumps

STB flash heater

Outlet valve for coffee
water

Pump for coffee water

Flow meter

2. Overview of Components

2.4

Product containers, mixing unit and brewer

Lid of product container

Product container 1BE

Product container 2BE

Locking latch screw at the back

Product screw 18th division

Stirring wheel

Closure of product chute

Product chute

Mixer motor bracket

Retaining clip

Mixer motor 24 V DC

O-ring of mixing bowl

V-ring

Mixer blade

Water outlet of the mixing bowl

Mixing bowl for Latte-Aero-Mix

Locking latch

Outlet (undrilled for ET)

Brewer seal O-ring

Top brewer seal

Bottom brewer seal

Filter and filter holder

Infusion chamber

Brüherstempel / Brühkammer Draufsicht

Funnel

Outlet tube

Brewer (9.5 grams)

Water supply with knurled screw

Product outlet

Brüher 9,5 gr

3. Unpacking, Location and Start Up

3.1

Directions for installation

The smooth operation of the appliance in unventilated rooms and at room temperatures lower than 5°C is not guaranteed. ⊘

The instant ingredients are foods that are heat- and moisture-sensitive. At a room temperature of more than 30°C and a relative humidity of more than 80% all components that come into contact with food must be cleaned daily. ⊘

When choosing the location please ensure that easy access for operation, maintenance and loading of the machine is provided. ⊘

Protect the appliance from splashes. ⊘

3. Unpacking, Location and Start Up

3.2

Location

When the packaging has been carefully disposed of, check that the machine is in an acceptable condition.
Check that all components are correctly installed.

The appliance keys are to be found on the drip tray.
When choosing the location, ensure that an even surface with no vibrations and sufficient space for operation is available.

The machine must be placed vertically and horizontally in such a way that the appliance door shuts properly.

The machine must not be exposed to frost, humidity or direct sunlight.

A minimal distance of 10 cm between the wall and the back of the machine must be strictly maintained.

The machine is supplied with a mains cable with an earthing type plug. A 16A fused 230V AC VDE grounding receptacle is required. External devices connected to the same circuit that, due to their nature, send back stress peaks to the power supply, may destroy the machine or affect its functioning.

3. Unpacking, Location and Start Up

| 3.3 |

Starting up the appliance

Before installing the machine, the following features should be checked:

Water quality: **
pH value from 6.5 to 7.5
Total hardness between 7° and 12° "Deutsche Härte" (dH)
Carbonate hardness between 3 and 4° kH
Water with no impurities (sand, rust, etc.)

** → insert a potentially suitable water filter and/or water decalcification filter into the water supply to improve the water quality (section 6.8).

Water tap pressure:
At least 0.1 MPa to a maximum of 0.8 MPa (1 to 8 Bar)

→ with higher water tap pressure use a pressure regulator and adjust to 0.3 MPa (3 Bar).

Ensure that an easily reached angle valve (or stop cock) is available to prevent water discharge in an emergency

3. Unpacking, Location and Start Up

| 3.4 |

Water tank (only E/1)

To load the barista E/1 (tank version) with fresh water please proceed as described below

② Remove the water tank from the appliance and fill up

③ Or if the appliance lid is shut, fill up via the water flap until the float indicates the maximum water level.

3. Unpacking, Location and Start Up

3.5

Fixed water supply (only E/2)

To install the appliance to the external water supply (fixed water connection, water pump) use the accompanying water connection accessories. These consist of:

- 3 m of PE pipe
- 2x manometer screws (⅜ inch)
- 1x angle reducer from ¾ inch → ⅜ inch

In addition the following are required: (liquid)Teflon or another suitable sealant (suitable for food)

Procedure:

Detach the key from the drip tray, open the appliance door and remove the box of accessories

Open the lid and remove the documentation

Connect water supply reducer, angle piece and manometer using sealant (preferably Teflon)

Twist the water supply reducer firmly onto the water inlet valve.

Twist the ⅜ inch manometer screws (internal thread) onto the angle valve using sealant.

Fix PE tube to the angle valve and inlet valve

Open the angle valve and check for leaks in the water supply

**More information on "Water and Filters" is to be found in Section 6.7.**

3. Unpacking, Location and Start Up

| 3.6 |

Power connection

④ Connect the mains cable (in the accessory box) to the power supply

⑤ Turn the mains switch on the back of the appliance to "ON"

⑥ Plug the door contact key into the door contact switch and by turning 90° clockwise fix it in the keyhole.

The door contact key is on the inside wall of the key clip (arrow)
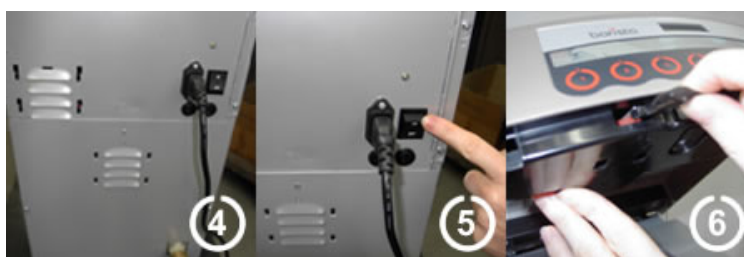
Please note …

1.3 Technical data → Electrical connection
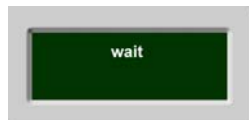
3. Unpacking, Location and Start Up

| 3.7 |

First installation

The appliance is switched on.
On the display the name of the manufacturer and the date of manufacture of the appliance appear

After a short time the display information changes automatically. The name of the appliance, software and the software version (date) are shown.

After a short time the display information changes automatically. On the display "please wait" appears. The appliance makes an initialisation check and…

… indicates "water filling". One after the other the surge tank and the instant boiler are filled with water. When the required water levels have been reached, the water tubes in the instant boiler and the float/float switch combination in the surge tank allow …

In the E/1 version (tank version), if the maximum time to achieve full capacity set in the software is reached, the machine shows error "OFF 6A"

Solution: refill the detachable water tank and switch the appliance off and then on again.

… the appliance to heat up. On the display "please wait…temperature" appears,

… Now is the time to fill the individual product containers. With the door of the appliance open lift the cover and either (1) fill the product container in the appliance or (2) remove the product container with a gentle pull and fill up. Then open the locking latch of the product chutes.

shut   open
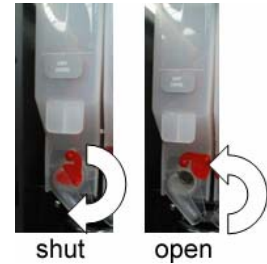
When the temperature has been reached the appliance switches to operation mode (selling mode), and the display now shows alternating introductory messages, e.g. "insert cup – why not try MoccaCino".
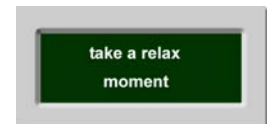
The operational mode is also indicated by the light indicator or flash light coming on continuously.

The appliance is now ready to operate and equipped with a Servomat standard drinks dispenser.

Default data show a determined average value and are suitable as a source for a drinks preparation dispenser and suggest the ideal values. To obtain the best possible results an extra dose is necessary. The dosing quantities and weights of the respective products vary from supplier to supplier.

4. Programming

4.1

The two types of programming

As with all other Servomat coffee vending machines, the Barista gives you the possibility of intervening in the programming of the appliance directly via the menu buttons (in the programming mode = programming buttons) as well as via the flash card.

The programming of the machine's controls is possible via …

- Option buttons (section 4.2)
- Flash card (section 5.1 onwards)

4. Programming

4.2

Beginning programming

Open the door of the appliance and press the "PROGRAMMING BUTTON" underneath the cover of the interior (see arrow)

The machine changes from sales mode to programming mode

Ⓟ

On the display alternating messages appear (picture) …

By pressing the various numbers on the control panel, you will obtain the selected menu group

1 = PROGR (only for service technicians or authorised specialist staff): adjustment of drinks dispenser
2 = DATA: to call up the sales data meter
3 = TEST (no function)
4 = CLEAN (for operators): rinsing programmes for daily, weekly and monthly cleaning
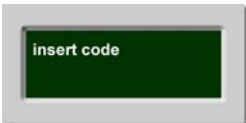
Except for menus 2 to 4, menu 1 (programming) is secured by a code to prevent unauthorised use. In this case you are asked to enter your authorisation code.

Barista pressobean code: 8-7-6

The electronic acknowledgement of false entries automatically ends the programming. The machine reverts to the sales mode.

You are now in the PROGRAMMING menu and have unlimited access to all parameters (adjustments such as water and product running times, etc.). For a detailed description of parameters see the sections DOSING LIST 4.6 → 4.8. To call this up you have to NAVIGATE as follows.

①
Barista pb code
(E/1 and E/2)

⑧ ⑦ ⑥
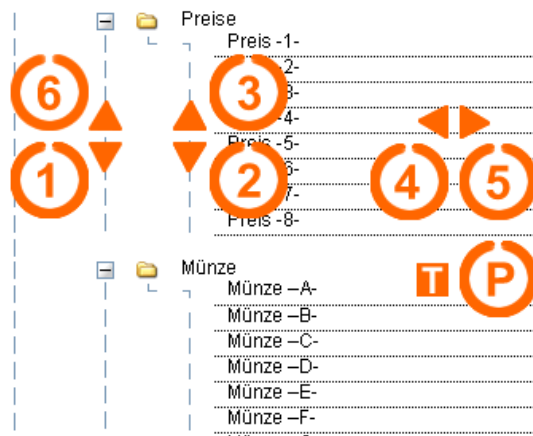
Buttons 1/6: navigate within the main menu groups
Buttons 2/3: navigate within the various submenus of the selected main menu and select the adjustment
Buttons 4/5: Change adjustment / times
Programming Button (P): If needed, test dosing directly in programming
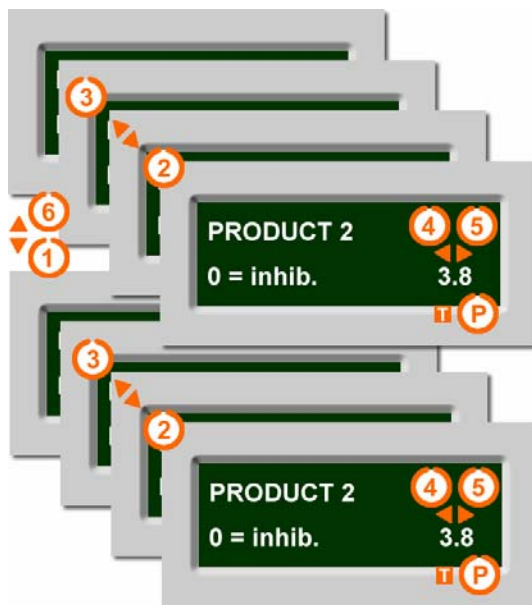
Please always place a suitable measuring receptacle under the product or water outlet. Mixing bowls or brewers should be removed beforehand if necessary.

All amended adjustments are obligatorily saved after escaping the submenu and after "proper" ending of the programming has taken place (see section 4.3)

Should the programming terminate due to the plug being pulled out, due to the door contact key loosening or due to "Switch off" because of operation of the mains switch (without the PROG button), all adjustments that have been entered up to that point will be lost. The machine will not have accepted any changes.

4. Programming

4.3

Ending programming

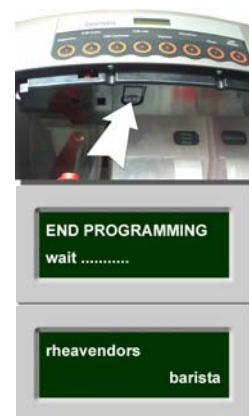If you are in the programming schedule and wish to end programming and save the amended adjustments (parameters):

Press button 1 and then the programming button (arrow) to escape the programming mode and go into the sales mode.

The display now shows "END programming wait....." for about 2 seconds,

Followed by the default message "insert cup". The machine is now in selling mode and has saved all changes.

4. Programming

4.4

Programming – Overview

By pressing the programming button "P" and entering the code you will enter the programming mode. With the option buttons…you can…

"1" and "6" → scroll through main menu
"2" and "3" → enter and scroll through sub menu group and
             parameters
"4" and "5" → change / select parameter value
"P"   → test dispensing (depending on parameter)

* (asterisk) → optional with use of the RFID card

"P"	Button 1 or 6	Button 2 or 3	Button 4 or 5 to change value	Default value	Look up manual Section
Programming					4.0
Enter code			pressobean code = 8-7-6		4.2
Option -1-				See dosing list	4.501 & 4.6 → 4.8
Option -2-				See dosing list	4.501 & 4.6 → 4.8
Option -3-				See dosing list	4.501 & 4.6 → 4.8
Option -4-				See dosing list	4.501 & 4.6 → 4.8
Option -5-				See dosing list	4.501 & 4.6 → 4.8
Option -6-				See dosing list	4.501 & 4.6 → 4.8
Option -7-				See dosing list	4.501 & 4.6 → 4.8
Option -8-				See dosing list	4.501 & 4.6 → 4.8
Option -9-				See dosing list	4.501 & 4.6 → 4.8
Prices *					
Price -1-		00 → 999	00 *		4.502
Price -2-		00 → 999	00 *		4.502
Price -3-		00 → 999	00 *		4.502
Price -4-		00 → 999	00 *		4.502
Price -5-		00 → 999	00 *		4.502
Price -6-		00 → 999	00 *		4.502
Price -7-		00 → 999	00 *		4.502
Price -8-		00 → 999			4.502
Happy Prices *					
Price -1-		00 → 999	00 *		4.503
Price -2-		00 → 999	00 *		4.503
Price -3-		00 → 999	00 *		4.503
Price -4-		00 → 999	00 *		4.503
Price -5-		00 → 999	00 *		4.503
Price -6-		00 → 999	00 *		4.503
Price -7-		00 → 999	00 *		4.503
Price -8-		00 → 999	00 *		4.503
Coin *					
Coin –A-		00 →200	05 €-Cent *		4.504
Coin –B-		00 →200	10 €-Cent *		4.504
Coin –C-		00 →200	20 €-Cent *		4.504
Coin –D-		00 →200	50 €-Cent *		4.504
Coin –E-		00 →200	100 €-Cent *		4.504

			Coin –F–	00 → 200	100 €-Cent *	4.504
			Coin –G–	00 → 200	00 €-Cent *	4.504
			Coin –H–	00 → 200	00 €-Cent *	4.504
			Coin –I-	00 → 200	00 €-Cent *	4.504
			Coin –J-	00 → 200	00 €-Cent *	4.504

Temperature
Boiler	0°C → 85°C	80	4.505-1
Free	-	-	-
Heating block	0°C → 120°C	105	4.505-2

Miscellaneous
Machine No. A	0 → 9999	00	4.506-1
Machine No. B	0 → 9999	00	4.506-1
Information No.	0 → 7	0	4.506-2
Free	-	-	-
Free	-	-	-
Fan running time	0 → 10	01	4.506-5
Time signal	0 → 1.5 (0.1 Step)	0.0	4.506-6
Decimal number	0 → 3	2	4.506-7
Free	-	-	-
Free	-	-	-
First installation	0, 1	0 = First installation	4.506-10
Tunning pump 1	+30% → -30%	0	4.506-11
Tunning pump 2	+30% → -30%	0	4.506-11
Tunning grinder	+30% → -30%	Depends on grinder	4.506-12

Diagnostics
Message	1 = Yes	0	4.507
Free	-	-	-
Free	-	-	-

Sales data
Counter (all)		0	4.508-1
Counter (periods)	4=cancel	0	4.508-2
Counter (Euros)	4=cancel	0.00 *	4.508-3
Counter (Euros - periods)	4=cancel	0.00 *	4.508-4
Counter (test)	4=cancel		4.508-5
Counter (test - periods)	4=cancel		4.508-6
Card credit *	-	0.00	4.508-7
Card credit (periods)*	4=cancel	0.00	4.508-8
Card sales *	-	0.00	4.508-9
Card sales (periods) *	4=cancel	0.00	4.508-10
Counter option 1	4=cancel		4.508-11
Counter option 2	4=cancel		4.508-11
Counter option 3	4=cancel		4.508-11
Counter option 4	4=cancel		4.508-11
Counter option 5	4=cancel		4.508-11
Counter option 6	4=cancel		4.508-11
Counter option 7	4=cancel		4.508-11
Counter option 8	4=cancel		4.508-11
Counter option 9	4=cancel		4.508-11
Counter option 1 free/Ka	4=cancel		4.508-12
Counter option 2 free/Ka	4=cancel		4.508-12
Counter option 3 free/Ka	4=cancel		4.508-12
Counter option 4 free/Ka	4=cancel		4.508-12
Counter option 5 free/Ka	4=cancel		4.508-12
Counter option 6 free/Ka	4=cancel		4.508-12
Counter option 7	4=cancel		4.508-12

			free/Ka				
			Counter option 8 free/Ka	4=cancel			4.508-12
			Counter option 9 free/Ka	4=cancel			4.508-12

Time

Time	e.g. 16:37	Current time	4.509-1
Day	e.g. 23	Current day	4.509-2
Day of the week	e.g. Mon	Current day of the week	4.509-3
Month	e.g. 03	Current month	4.509-4
Year	e.g. 06	Current year	4.509-5
HH On F1*	e.g. 06:15	00:00	4.509-6
HH Off F1*	e.g. 18:00	00:00	4.509-7
-----such as 4.5-U6/7* for time periods F1, F2, F3 days of the week------			
On Mon		00:00	4.509-8
Off Mon		00:00	4.509-9
-------------------- as 4.5-U12/13 for all days of the week ------------------			
Kilowatt hours (kWh)		0.0	4.509-10

Error messages

no.1 OFF 06 A	19:05 09-01-2006	(e.g.) 4=cancel	4.510
……			-
no.20 OFF == =	==:== == - == - ====	(e.g. no entry)	4.510

Service counter

Water filter counter	[00]	0	4/5 change, 8 accept	4.511-1
Brewer counter	[00]	0	4/5 change, 8 accept	4.511-2
Coffee grounds counter	[00]	0	4/5 change, 8 accept	4.511-3

Programming RFID CARD *

Max. credit card *		0.00 *	4.512-1
Coin Card A→J *	0 = active, 1 = locked	0 *	4.512-2
Coin after card A→J*	0 = active, 1 = locked	0 *	4.512-3

Counters

All counters showing "sales data" (section 4.508) are displayed one after the other at intervals of 3 seconds. Counters cannot be cancelled, only viewed. The message is terminated by pressing the PROG button.

4.508-1 → 4.508-12

Free sale

If you have used the RFID card module and/or a transmitter and you have stored the prices in the appliance control system you can enter FREE SALE here.

4.513

Rinsing

Start the rinsing programme for daily, weekly and monthly cleaning (section 7).

1 = brewing set, 2 = water for tea, 3 = instant (mixing bowl)

4.514

Service counter

Refer to section 4.511 in the PROGRAMMING folder, but without the possibility of changing the key data (portions, quantities, etc.). Via menu button 8 the reverse counter can be reset to the final value.

4.515
4.511-1 → 4.511-2

4. Programming

4.5

Adjustment values / Parameters

Servomat experts look at the tree structure of the programming and recognise the Servomat programme structure that spans all appliances and always remains the same. However, the speciality of the barista is that here for the first time is an appliance with which there is no possibility of connecting it to a coin operated device, although in the programming…especially under sales data, prices and coins…typical features and parameters for the use of a coin operated device are provided. There are two reasons for this …

Basically, the operation of a transmitter / coin validator, and that of a Servomat card reader, is possible due to RFID technology (optional) → the electronics at the back of the appliance show a standardised connection to operate a coin validator including the connector of the optional RFID card. At the same time, no coin validator can be installed on the front of the appliance due to the method of construction.

The programme structure is essentially the same for all Servomat appliances and should also be in place in the Barista. Irrelevant parameters have not yet been removed in this version of the software, but will be denoted "inactive" or "optional" in these instructions.

Therefore, parameters, data, adjustment possibilities and messages must always be viewed critically!!!

Option

"Option xxx" denotes a menu option button (1 → 8), behind which the individual dispensing table listed in sections 4.6, 4.7 or 4.8 is presented. There are 25 parameters per menu button (200 for 8 options) just for drinks dosing when in use. Have you ever considered the application of flash card technology?

4.501
Options 1 → 9

Price
(optional: only in the case of RFID readers and/or transmitter)

Specify the **normal sales price** of each product (options 1 → 8) in Euro Cents. Adjustment range 00 → 999. As default 00 is selected (free sale). If you have stored a price, the appliance indicates this on a display readout after selection of a product. For example: "Price: 60"

4.502
Price 1 → 9

Happy Price
(optional: only in the case of RFID readers and/or transmitter)

Specify the **Happy Hour selling price** for each product (options 1 → 8) in Euro Cents. Adjustment range 00 → 999. As a default 00 is selected (free sale). If you have stored a price, the appliance indicates this on a display readout after selection of a product. For example: "Price: 60"

4.503
Price 1 → 9

Happy Hour denotes a period in which the sale price of each drink option (1 → 8) is allocated the price in that particular period (Happy price 1 → 8). The period in the CLOCK menu must be entered. See section 4.509-1 → 4.509-9.

Coins
(optional: only in the case of RFID readers and/or transmitter)

4.504 Coins 1 → 9	The addition of a coin validator is not possible with the Barista. the barista machine does not have space for a coin acceptor. With a view to future changes and following the programme structures of other Servomat appliances with regard to equality in programming, the addition of a transmitter is therefore not completely out of the question, however, it is not in use in this version. The parameters named coins 1 → 8 represent the individual coin value (one coin per channel) and are set values. As defaults the range of GBP coins from 5p up to £1 are normally stored. These coin values must be given the same values as those with which your acceptor is equipped. Furthermore, it is possible to use tokens.

Temperature

4.505-1 Temperature instant boiler	The value entered corresponds to the temperature in degrees centigrade. An adjustment range from 0°C (cold, heating off) up to a maximum of 85°C. **WARNING**: the safety temperature limiter is triggered at 88°C. Production and measurement tolerances require a reserve of 3°C tolerance between the temperature limiter and the temperature sensor for reliable operation. **IMPORTANT**: By separating the instant and coffee water circulation (section 6.9) the optimal temperature for brewing coffee is adjustable without having to pay attention to the temperature-sensitive topping products**. The best result is produced in every cup.** Default temperature: 85 °C
4.505-3 Temperature flash heater	The value entered corresponds to the temperature in degrees centigrade. An adjustment range from 0°C (cold, heating off) up to a maximum of 120°C. **WARNING**: the safety temperature limiter is triggered at 135°C. This value displays the pressurised water in the flash heater and is **not the brewing temperature**. During controlled operation the adjustment value "100" corresponds to a water/coffee contact temperature in the brewer of about 92°C. Water that is too hot burns the coffee, it gets bitter and the crème is dark. Water that is too tepid does not extract the coffee elements sufficiently and leaves the crème light and the taste unspectacular. **IMPORTANT**: By separating the instant and coffee water circulation (section 6.9) the optimal temperature for brewing coffee is adjustable without having to pay attention to the temperature-sensitive topping products**. The best result is produced in every cup.** Default temperature: 105 °C

Miscellaneous

4.506-1 Machine A Machine B	Allocate to your machine an individual, freely adjustable four-digit number as machine A. In the event of adapting a second appliance (Slave, not planned at the moment) this will have to be entered as machine B. Use the flash card technology in the sales data collection key mode to collect sales data of several appliances on one key; the value under "Machine A" is the only value of the difference in the *.txt and *.csv data.

Specify the display message content in the sales mode. Choose from
<div align="right">4.506-2
Message display</div>

Adjustment "3" is freely programmable with the flash card editor.

0 – Try Latte Macchiato (default)
1 – Try MoccaCino
2 – Treat yourself to a break
3 – FREELY PROGRAMMABLE *
4 – Insert card
5 – Plug in key
6 – I am ready to sell
7 – Information

Running time of the extractor fan of the mixing bowl. Values entered are in minutes. From the beginning of production of a drink the fan starts to evacuate the mixing bowl (steam building up from the hot water over the mixing bowl) and runs for x minutes.
Typical value: 1 → 5 minutes, 0 = fan off, 1 = default
<div align="right">4.506-5
Fan running time</div>

Specify the duration of the tone of the confirmation signal when pressing the option/menu button.
0 = no tone, 1.5 sec. = maximal duration of tone
<div align="right">4.506-6
Signal duration</div>

Adjustment of values according to GBP coinage. The number describes the places after the decimal point. 2 = x.xx
<div align="right">4.506-7
Decimal number</div>

All water pipes are emptied thoroughly at the factory. When starting up, however, every care must be taken that the pressure pump is not operated when empty and that there is no water in the flash heater. This requires a special procedure during starting up, which is defined by this parameter. Please make sure you reset this parameter to "0" if the machine is uninstalled. After filling the instant boiler and the surge tank the pump lets the water pipes, flash heater and other components rinse through and fill with water (see water circulation, section 6.9); then heating up takes place. In addition, the list of error messages (sections 4.510, 6.11) is cleared. Until the cumulative count has been reset the appliance is almost untouched. The value "0" allows this procedure to start. If this unique procedure is terminated, this value automatically changes from 0 to 1. The initial installation can be activated at any time especially when the location of the appliance is changed or before the appliance is put into storage to ensure it starts up properly next time.
<div align="right">4.506-10
Initial installation</div>

0 = initial installation activated
1 = initial installation deactivated

The pumping rate of the instant pumps (water for tea, mixing bowl) can be individually corrected in the region of +/-30% for each pump (flow rate).
<div align="right">4.506-11
Tunning pump 1 → 2</div>

- 30% = reduces the pumping rate by 30%
   0   = default
+30% = increases the pumping rate by 30%

Tunning pump 1 = water for tea
Tunning pump 2 = water for the mixing bowl / topping

Grinders are subject to natural production tolerances. The flow rate of the individual grinders in all Baristas should, however, be as similar as possible. At the factory all grinders that are introduced into appliance production are tested and their performance parameters specified. The label on the product version of the grinder gives information about the efficiency of the grinder, which should be adjusted here as parameters and adjustment figure, so that your individually determined appliance installation data (programming data) are still transportable and retain their validity for all Baristas.
<div align="right">4.506-12
Tunning grinder</div>

The number displayed on the label with +/- indicates that this grinder works 5% faster than standard grinders, for example. The flow rate is 5% higher than the standard value and must be reduced so that your standard basic data can be entered into all Baristas of the Pressobean make, regardless of model. In another Barista it is quite possible for the value "-10" to be entered. On your KD flash card, however, you have only determined one individual customer's drinks dispenser. The following now occurs …

Barista No.1: +5 → The flow rate of the grinder is 5% higher than the standard setting. The actual running time of the grinder must therefore be reduced by 5%. Enter +5% – the value quoted on the label – into this parameter, and the grinder is accessed for instead of 8 seconds, for example, a value -5% (i.e. 7.6 seconds), although in the programming the running time of 8 seconds is maintained and not changed.

Barista No.2: -10% → The flow rate of the grinder is -10% lower than the standard setting. The actual running time of the grinder must therefore be increased by 10%. Enter -10% - the value quoted on the label – into this parameter, and the grinder is accessed for instead of 8 seconds, for example, a value +10% (i.e. 8.8 seconds), although in the programming the running time of 8 seconds is maintained and not changed.

With an unchanged dosing list it is possible to run all Baristas with grinder production tolerances with the same dosing data …and thus with the same drinks and dosing quality.

Tunning grinder = corrected value for grinder
                                (-30% ←→ +-0% ←→ +30%)
                                (depends on grinder used)

Beware: grinders delivered as replacement parts are not classified and carry no correction value. This must be determined by you. Please proceed as follows:

Standardising the grinder:

Adjust the running time of a grinder for a test drink to 8 seconds. Weigh out the ground coffee: set point = 8 grams. With a weight measuring 8.8 grams the quantity of coffee grounds achieved is 10% higher than standard, but at 7.6 grams it is 5% below that.

Diagnostics

4.507
Message

A message concerning the boiler and flash heater temperatures on the display. A useful instrument for the technician to monitor the current temperature values while a drink is being produced. Useful diagnostic help for determining the level of calcification by establishing in this way how quickly the system brings the incoming cold water up to the set temperature.

Temperature message: 0 = deactivated, 1 = activated

Sales data

This counter registers and counts all the sales units dispensed in sales mode. **Non-resetable**	4.508-1 Counter (all)
Like the counter for all sales, but **can be reset** (to zero). This counter registers and counts all the sales units dispensed in sales mode. Reset: press button 4 until the counter goes back to zero (about 2 seconds)	4.508-2 Counter (periods)
This counter registers and counts all the sales dispensed in coin values (monetary value, prices) in the sales mode. **Non-resetable**	4.508-3 Counter (Money) (optional: only with the RFID reader with or without transmitter)
Like the counter for all periods, but **can be reset** (to zero). This counter registers and count all the sales dispensed in coin values (monetary value, prices) in the sales mode. Reset : press button 4 until the counter goes back to zero (about 2 seconds)	4.508-4 Counter (money per period) (optional: only with the RFID reader with or without transmitter)
This counter registers and counts all sales units dispensed in the test/free sale mode. Cannot be reset.	4.508-5 Counter (test)
This counter registers and counts all the sales units dispensed in the test/free sale mode Reset: press button 4 until the counter goes back to zero (about 2 seconds)	4.508-6 Counter (tests per period)
This counter shows you how many money units have been loaded onto all cards since starting up. Cannot be reset.	4.508-7 Card credit *
This counter shows you how many money units have been loaded onto all cards since starting up. As a period counter it can be deleted. Reset: press button 4 until the counter goes back to Zero (about 2 seconds)	4.508-8 Card credit per period *
This counter registers all sales that have been "sold" with the RFID card → in Euros. Cannot be reset.	4.508-9 Card turnover *
This counter registers all sales that have been "sold" with the RFID card → in Euros. As a period counter it can be deleted. Reset: press button 4, until the counter goes back to zero (about 2 seconds)	4.508-10 Card turnover per period *
This counter registers all sales units of the drinks sold via the menu/option buttons 1 → 8, 9 = inactive. Reset: press button 4, until the counter goes back to zero (about 2 seconds)	4.508-11 Counter, options 1 → 9
This counter registers all sales units dispensed via the free sale/jug function of the menu/option buttons 1 → 8, 9 = inactive. Reset: press button 4 until the counter goes back to zero (about 2 seconds)	4.508-12 Counter, options 1 → 9 Free sale/Jug

Time

The appliance has an internal clock. You have the possibility of setting various, consecutively presented switching functions. The clock is not active until a time has been entered. Important for diagnostics (e.g. list of error messages, section 4.510) and alternative sales prices (Happy Hour in connection with a payment system, e.g. RFID card and SPI transmitter (not yet available in Germany)).

4.509-1 Time	Set the current time. 00:00 → hour (24) : minute [xx:xx] Factory setting → current time
4.509-2 Day	Set the day. **dd**.mm.yy → day (01 → 31) Factory setting → current day
4.509-3 Day of the week	Set the day of the week Mo (Monday) → So (Sunday) Factory setting → current day
4.509-4 Month	Set the month. dd.**mm**.yy → month (01 → 12) Factory setting → current month, e.g. 03 for March
4.509-5 Year	Set the year. dd.mm.**yy** → year (00 → 99) Factory setting → current year, e.g. 06 for 2006

4.509-6
HH ON F1*

Establish the ON starting point, **from which the Happy Hour sales programme starts each day**. With the Barista you can set three different independently controlled sales periods during which a "modified" Happy Hour sales price is displayed.

WARNING: overlapping of the time periods causes malfunctioning.

00:00 → hour (24) : minute [xx:xx]
Factory setting → 00:00

4.509-7
HH OFF F1*

Establish the OFF starting point **from which the Happy Hour sales programme ends each day.** With the Barista you can set three different independently controlled sales periods during which a "modified" Happy Hour is displayed.

WARNING: overlapping of the time periods causes malfunctioning.

00:00 → hour (24) : minute [xx:xx]
Factory setting → 00:00

4.509-8
ON Mon → Sun

Establish the daily 'ON' time of the operating mode. At this starting time the appliance switches from standby mode to operating mode. Also establish the OFF under 4.509-9.

00:00 → hour (24) : minute

Example 1: 6:30 in the morning → adjustment: 06:30
Example 2: 5:15 in the afternoon → adjustment: 17:15

In standby mode the appliance is simply "non"-operational and makes "no" sales/free sales. Illumination, heating and all the functions necessary for operation are active though (heating against germ formation in the water). The "standby" function is **not** an energy-saving function.

Establish the daily OFF time of the operational mode. At this starting point the appliance switches from operational mode to standby mode. Furthermore, establish the ON time under 4.509-8.

00:00 → hour (24): minute

Example 1: 6:30 in the morning → adjustment: 06:30
Example 2: 5:15 in the afternoon → adjustment: 17:15

In standby mode the appliance is simply "non"-operational and makes "no" sales/free sales. Illumination, heating and all the functions necessary for operation are active though (heating against germ formation in the water). The "standby" function is <u>**not**</u> an energy-saving function.

4.509-9
OFF Mon → Sun

Electricity consumption counter in kWh since start up.

Delete: Press button 4, until the counter goes back to zero (about 2 seconds)

4.509-10
Kilowatt hours (kWh)

Error messages

The Barista stores up to 20 error message codes (nos. 1–20) with date and time given. During servicing, the history of the error messages is quick and easy to manage for the technician. This is described in detail and solutions are demonstrated in section 6.11. This list of errors is an important aid and support for the technician when finding a cause and diagnosing an error.

no.1 → Malfunction No. 1
OFF 31B → Malfunction (section 6.11)
10:13 → Time of the error message *
29-03-2006 → Date of the error message **

*   Time must be entered (section 4.509-4)
** Date must be entered (section 4.509-5 → -7)

4.510
no.1 → no.20

Service counter

This counter serves to check when the water filter needs to be replaced (section 6.8). For this reason, on the basis of the water quality (measurement during operation), the filter capacity (table of consumption of the water filter manufacturer) and the set drink size the selling quantity in mug portions is determined …

and entered.

4.511-1
Water filter counter

The RESET counter can be set by the operator.
section 4.2 → button "5" = service counter)

Confirm entry with the programming button.

(P)

coun. waterfilter
[4500]   4500

Appears on the display and the counter is now active.

coun. waterfilter
[50]   4500

This counter now counts backwards with each portion delivered until 50 appears.

change
water filter

After that, the Barista informs via the display when the water filter is worn out and needs to be changed.
Selling can continue.

coun. waterfilter
[2]   4500

(!)

The value does not go down to "0", but remains on "2" due to the technical programming.

If the counter gets to "2" …

OUT OF SERVICE
water filter

The display shows…

(!)

This display message does not disappear until the water filter has been changed and by pressing the PROGRAMMING button plus CONFIRM you have set the counter to the new quantity of consumption (e.g. 4500).

RESET
1 = no   4 = Yes

Programming button → the display shows…

coun. waterfilter
[4500]   4500

Confirm the procedure by pressing button "2". Button "1" makes no change and takes you back to the previous point in the programme.

Press → 4 = yes

On the display the counter is reset. The counting cycle begins again.

The RESET counter can be set by the operator. Section 4.2 → Button "5" = Service counter)

This counter shows when the brewer should be cleaned by the operator. Usually after 250 portions (max. 9999) the brewer should be cleaned using the rinsing programme and purification tablets so that the coffee oils are dissolved in the sieving filter and the flow of the coffee water is guaranteed (section 6.5 – clean brewer, 7.3 – weekly clean).

4.511-2
Brewer counter

As a default, no data are stored, and the counter is not active.

coun. brewer
[00]   00

Set this reverse counter using buttons 4 and 5 …

(4)(5) → "250"

coun. brewer
[00]   250

and confirm your entry by pressing the PROGRAMMING button.

(P)

The display shows ...
From now on the counter is active.

If the counter has proceeded to a value of 10 …

The value does not go down to "0", but remains on "2" due to the technical programming.
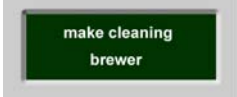
The display shows …

This display message indicates to the operator that intensive cleaning must be carried out (see sections 6.5 – cleaning the brewer, 7.3 – weekly cleaning). This display message does not disappear until you press the PROGRAMMING button plus CONFIRM and reset the counter to the new reading (e.g. 250).

Programming button → the display shows …

Confirm the procedure by pressing button "2". Button "1" makes no change and takes you back to the previous point in the programme.

Press → 4 = yes

The display shows …

The counter is reset and the appliance is then operational with no service message.

This counter shows when the coffee grounds container should be emptied and cleaned by the operator. Usually the coffee grounds container should be emptied after 35 portions (section 7.2, point 5). As a default no data have been stored and the counter is not active.

4.511-3
Coffee grounds counter

Set this reverse counter using buttons 4 and 5 …

Confirm your entry by pressing the PROGRAMMING button.

The display shows ...
From now on the counter is active.

If the counter has proceeded to a value of 10 …

The display shows …
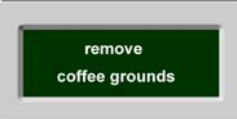
This display message signalises to the operator that the coffee grounds container needs to be emptied and cleaned. This display message does not disappear until you press the PROGRAMMING button plus CONFIRM and the counter is reset to the new reading (e.g. 250).

If the counter reaches the value "1", the appliance switches to operational mode and is from then on locked until RESET.

The value does not go down to "0", but remains on "1" due to the technical programming

---

Programming button → The display shows …

Confirm the procedure by pressing button"2". Button "1" makes no change and takes you back to the previous point in the programme.

Press → 4 = yes

The display shows …

The counter is reset and the appliance is from then on operational with no service message.

```
    RESET
1 = no      4 = Yes
```

```
cnt. cof. ground
[  35]            35
```
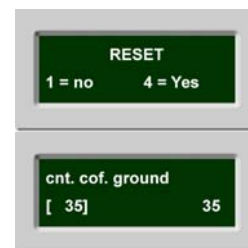
RFID programming

4.512-1 * max. credit card	With the use of the optional RFID card solution this entry specifies the maximal card charging via the transmitter. For example: 5.00 → £5 0:00 → infinitely rechargeable (no limit)
4.512-2 * Coin Card A → J	Use the optional RFID card system in combination with a transmitter for upgrading and you might like to upgrade the card via a transmitter. The card is placed on the RFID module. The parameters A to J are analogous to price guides and can be activated or locked. If a card is inserted, the individual price guides/price tubes/coin channels can be deactivated or activated to evaluate the card. (Accept yes/no) 0 = activated 1 = locked
4.512-3 * Coin no. card A → J	You use the optional RFID card system in combination with a transmitter for evaluation and no card is placed on the RFID reader. These parameters A to J are analogous to price guides and can be activated or locked. If no card **is placed on the RFID receiver module**, the individual price guides/price tubes/coin channels of the transmitter are deactivated or activated. (Accept yes/no) 0 = activated 1 = locked

Counters

4.508-1 → 4.508-12	All counters showing "sales data" (section 4.508-1 → 12) are displayed one after the other at intervals of 3 seconds. Counters cannot be cancelled, only viewed. The message is terminated by pressing the PROG button..

Free sales

4.513	If you have used the RFID card module and/or a transmitter and you have stored the prices in the appliance control system you can enter FREE SALE here.

Start the rinsing programme for daily, weekly and monthly cleaning (section 7).

4.514

1 = Brewer
2 = Water for tea
3 = Instant (mixing bowl)

Clear, hot water is pumped through the pipes and mixing bowls and dissolves water-soluble products and impurities.

When cleaning the brewing set you will also be asked to put in the purification tablet that is recommended for the weekly cleaning cycle. This cleans all brewing filters and components and dissolves coffee residue effectively. This purification tablet must be obtained from Servomat and is an important component for maintaining quality of drinks and prolonging the life of the machine.

After pressing button 8, the application time of the tablet begins in the infusion chamber, which is filled with hot water. In addition, the rinsing process begins → all cleaning residue is washed out.

WARNING: it is essential to put the dregs container and drip tray into the appliance and a suitable receptacle to catch the water under the outlet before the cleaning procedure.

Service counter

4.515-1

See also
4.511-1 → 4.511-3

Refer to section 4.511-1 to -3 in the folder PROGRAMMING, but with no possibility of changing the key data (portions, quantities, etc.). The reverse counters can be reset to the final value using menu button 8.

4. Programming

4.6	Your appliance

Dosing list E/1 Standard

Appliance specification: Barista PB E1 AA

Software version: BAED 1A 23-11-05

Configuration: 180ml (7oz cup) Standard
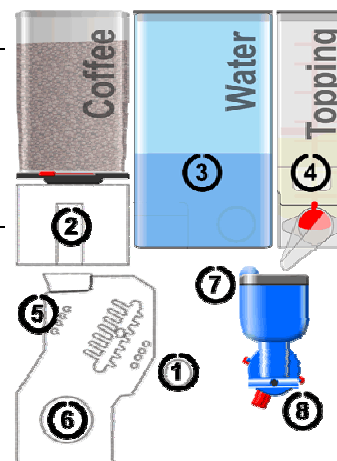
Button	1	2	3	4	5	6	7	8	
Selection Name	Cappuccino	Café Crème	Latte Macchiato	Café Latte	Espresso	Cre Moca	Latte 200ml	Hot Water	[Picture]
Functioning / Inhibited	Funct.	Funct.	Funct.	Funct.	Funct.	Funct.	Funct.	Funct.	-
Free (unused location)	Free	Free	Free	Free	Free	Free	Free	Free	-
Coffee Water (cc)	45	75	35	70	40	30	0	0	1
Coffee Sequence	After	Before	After	Before	Before	Before	x	x	2
Grinder time	7.5	7.5	7.5	7.5	7.5	7.5	0.0	0.0	2
Product 1 time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Inactive
Start delay product 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Inactive
Break number	00	00	00	00	00	00	00	00	Inactive
Product 2 time	3.5	0.0	5.0	3.0	0.0	1.5	7.0	0.0	4
Start delay product 2	0.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0	4
Break number	00	00	00	00	00	00	00	00	4
Product 3 time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Virtual*
Start delay product 3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Virtual*
Break number	00	00	00	00	00	00	00	00	Virtual*
Water 1 time	0.0	6.0	0.0	0.0	0.0	0.0	0.0	10.0	5
Start delay water 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5
Water flow 1	Low	Low	Low	Low	Low	Low	Low	Low	5
Water 2 time	5.5	0.0	7.0	4.5	0.0	3.0	10.0	0.0	7
Start delay water 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7
Water flow 2	Med	Low	Med	Med	Low	Low	Low	Low	7
Mixer 2 time	7.5	0.0	5.0	6.5	0.0	5.0	7.0	0.0	8
Start delay mixer 2	0.2	0.0	4.0	0.2	0.0	0.2	5.0	0.0	8
Mixer speed 2 (00 = fastest)	00	00	00	00	00	00	00	00	8
Freevend Quantity	00	00	00	00	00	00	00	00	-
Selection Name	Name	Name	Name	Name	Name	Name	Name	Name	-

* Can be used to pause in the automatic production of a Latte Macchiato.

4. Programming

4.7

Dosing list E/2 Standard

Appliance specification:	Barista PB E2 AR
Software version:	BAED 2A 23-11-05
Configuration:	180ml (7oz cup) Standard

Button	1	2	3	4	5	6	7	8	
Selection Name	Cappuccino	Café Creme	Latte Macchiato	Café Latte	Espresso	MoccaCino	Chocolate	Hot Water	[Picture]
Functioning / Inhibited	Active	Active	Active	Active	Active	Active	Active	Active	-
Free (unused location)	Free	Free	Free	Free	Free	Free	Free	Free	-
Coffee Water (cc)	45	75	35	70	40	45	00	00	1
Coffee Sequence	After	Before	After	Before	Before	Before	x	x	2
Grinder time	7.5	7.5	7.5	7.5	7.5	7.5	0.0	0.0	2
Product 1 time	3.5	0.0	5.0	3.0	0.0	2.0	3.0	0.0	5
Start delay product 1	0.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0	5
Break number	00	00	00	00	00	00	02	00	5
Product 2 time	0.0	0.0	0.0	0.0	0.0	2.0	5.0	0.0	4
Start delay product 2	0.0	0.0	0.0	0.0	0.0	3.0	2.5	0.0	4
Break number	00	00	00	00	00	00	01	00	4
Product 3 time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Virtual*
Start delay product 3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Virtual*
Break number	00	00	00	00	00	00	00	00	Virtual*
Water 1 time	0.0	6.0	0.0	0.0	0.0	0.0	0.0	12.0	5
Start delay water 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5
Water flow 1	Low	Low	Low	Low	Low	Low	Low	Low	5
Water 2 time	5.5	0.0	7.0	4.5	0.0	6.0	7.5	0.0	7
Start delay water 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7
Water flow 2	Med	Low	Med	Med	Low	Med	Med	Low	7
Mixer 2 time	7.5	0.0	5.0	6.5	0.0	8.0	9.5	0.0	8
Start delay mixer 2	0.2	0.0	4.0	0.2	0.0	0.2	0.2	0.0	8
Mixer speed 2 (00 = fastest)	00	00	00	00	00	00	00	00	8
Freevend Quantity	00	00	00	00	00	00	00	00	-
Selection Name	Name	Name	Name	Name	Name	Name	Name	Name	-

Can be used as a pause in the automatic production of a Latte Macchiato.

4. Programming

4.8

Dosing list E/2 Latte Macchiato automatic option

Appliance specification: Barista PB E2 AR

Software version: BAED 2A 23-11-05

Configuration: 180ml (7oz cup) Standard
200ml (9oz) Latte Macchiato option
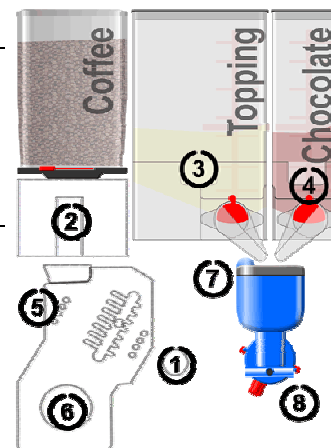
Button	1	2	3	4	5	6	7	8	
Selection Name	Cappuccino	Café Crème	Latte Macchiato 200 ccm	Café Latte	Espresso	MoccaCino	Chocolate	Hot Water	[Picture]
Functioning / Inhibited	Active	Active	Active	Active	Active	Active	Active	Active	-
Free (unused location)	Free	Free	Free	Free	Free	Free	Free	Free	-
Coffee Water (cc)	45	75	30	70	40	45	00	00	1
Coffee Sequence	After	Before	After	Before	Before	Before	x	x	2
Grinder time	7.5	7.5	11.0	7.5	7.5	7.5	0.0	0.0	2
Product 1 time	3.5	0.0	7.1	3.0	0.0	2.0	3.0	0.0	5
Start delay product 1	0.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0	5
Break number	00	00	00	00	00	00	02	00	5
Product 2 time	0.0	0.0	0.0	0.0	0.0	2.0	5.0	0.0	4
Start delay product 2	0.0	0.0	0.0	0.0	0.0	3.0	2.5	0.0	4
Break number	00	00	00	00	00	00	01	00	4
Product 3 time	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	Virtual*
Start delay product 3	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	Virtual*
Break number	00	00	00	00	00	00	00	00	Virtual*
Water 1 time	0.0	6.0	0.0	0.0	0.0	0.0	0.0	12.0	5
Start delay water 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5
Water flow 1	Low	Low	Low	Low	Low	Low	Low	Low	5
Water 2 time	5.5	0.0	5.5	4.5	0.0	6.0	7.5	0.0	7
Start delay water 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7
Water flow 2	Med	Low	Low	Med	Low	Med	Med	Low	7
Mixer 2 time	7.5	0.0	4.0	6.5	0.0	8.0	9.5	0.0	8
Start delay mixer 2	0.2	0.0	4.0	0.2	0.0	0.2	0.2	0.0	8
Mixer speed 2 (00 = fastest)	00	00	00	00	00	00	00	00	8
Freevend Quantity	00	00	00	00	00	00	00	00	-
Selection Name	Name	Name	Name	Name	Name	Name	Name	Name	-

* Can be used to pause the automatic production of a Latte Macchiato.

5. Programming with the Flash Card

Flash Card – genuinely helpful

History:

The first coffee machines were controlled electro-mechanically. A type of timer, similar to a washing machine, with mechanically adjustable time periods allows a limit switch to switch according to a set pattern. The original electro-mechanically controlled coffee machines became the first microprocessor-contained coffee machines about 15 years ago. The programming of these machines was carried out directly via the keypad of the appliance "directly to the appliance", a vending machine programming procedure that is still common today. However, if the machine's software had to be changed, an "EPROM" was necessary.

There was soon a problem with changing this. The EPROM was then unusable. No sooner had an EPROM burner costing 1200 DM been put in, than the EPROMs themselves could be "burnt/duplicated". Usually, this EPROM was obtained from the manufacturer – including the mailing costs, this was costly.

EPROM

In 2003, Servomat Steigler replaced the EPROM technology with "flash card" technology. Although the handling of data got easier, faster and thus more comfortable, the transport costs (from Servomat to the specialist partner) wasted time and were costly. With the current PC-supported version of flash card programming in combination with Rheaction software, Servomat Steigler has been breaking new ground for quite a long time, with great success and warm reception from their customers.

Flash card

What exactly is the flash card and what advantages does it have?

A flash card is a modern mobile data storage system
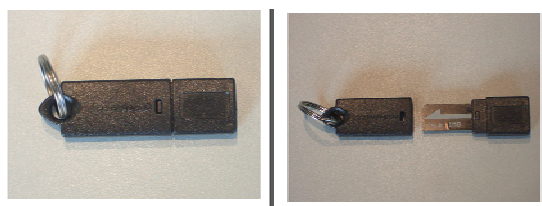
① Software update over the Internet

For all appliances in the RHEA range, we offer extensive appliance, dosing and specially configured files over the Internet at www.servomat-steigler.com as free downloads. Load the most up to date software via your PC onto the flash card → the machine update takes place within seconds.
Availability: 24 hours / 365 day a year.
Service 24/7

② Software transfer from appliance to appliance (1:1 copying)

Create a 1:1 copy with the flash card easily and quickly to duplicate an equipped vending machine. For locations in which several of the "same" vending machines are required.

③ Storage and administration of the data entered on the PC

Read the machine's software including dosing values and store these data on your PC.

④

Downloading sales data
Storage space for more than 100 vending machines on one key

Load vending machine sales data from all "appliances" on "one flash card key" and analyse these collected data with a commercial editor or by means of CSV file-compliant table calculation software. Our contribution to easy, time-saving and resource-sparing data collection for billing purposes.

⑤

Result → cost saving

5. Programming with the flash card

5.2

Flash card – equipment*

To use the flash card you need:

Flash card set (order no. 500000)
consisting of:

*For extensive operation and installation instructions please refer to the enclosed documentation

Flash card reader USB (flash card reader)

Rheaction software CD including driver

2x 1MB flash cards Can be individually configured

Operation and installation instructions

5. Programming

5.3

Flash card – carrying out appliance updates

How to carry out an UPDATE?

Requirement:

Key loaded with appropriate software and configuration files for the appliance

The machine switched **off**

Procedure: Insert **pre-programmed flash card into the slot** (key pins show downwards)

Switch on the appliance

→ the manufacturer and date of manufacture appear briefly on the display

SHORT guide:

A blinking message shows that the appliance is in programming mode and MASTER data are being loaded into the electronic control system from the key

①

Switch off appliance
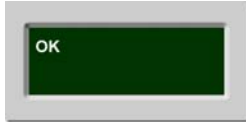
The end of the data transfer is acknowledged by the message "OK", which appears on the display for about 1 second

②

Plug pre-programmed flash card into the slot

In addition, the change in software is displayed by the message announcing the NEW software version.

③

Switch on appliance

④

Wait until "Programming correct" appears

If only the control software of the appliance is available without the configuration files, the message "Programming OK" now appears. The flash card can be removed and the appliance switched off/on. The update is finished. Otherwise …

A message appears stating that the appliance is in programming mode and that CONFIGURATION data are being loaded into the electronic control system from the key. Normally, these are dosing times and times elapsed.

⑤

Remove flash card

"Programming OK" indicates the finished status and the appliance has been reprogrammed. The flash card can be removed and the appliance switched off/on. The update is finished

⑥

Switch appliance off and then on again

5. Programming

5.4

Flash card – loading appliance data onto the flash card

How to store appliance data on a flash card

Requirement: Load key with the appropriate software and configuration files for the appliance

Machine is switched **on** and the appliance door is opened

Procedure: Insert the flash card, which is set as for sales data collection, into the slot (key pins show downwards)

,
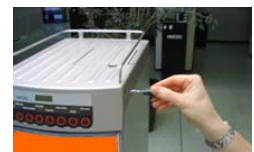
Press the programming button (arrow) inside the appliance cover

①

Appliance is switched on

The message "Programming flash card" shows that the appliance data are being transferred to the flash card

②

Plug pre-programmed flash card into the slot
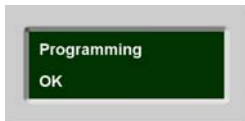
The data are transferred to the flash card. The programming is finished. A copy of the appliance software as well as all entered dosing times has been transferred onto the key. With this "mobile data medium" you can save a copy of this appliance within seconds to your PC as a back-up and it is specific to each customer.

③

2x PROG button

④

Wait until "Programming correct" appears

⑤

Remove flash card

5. Programming

| 5.5 |

Flash card – please note

Using the wrong method by mistake can have fatal consequences of data loss from the key and from the appliance. It is therefore imperative to note:

Data from …

Flash card → appliance = switch on

Appliance → Flash card = switched on, 2x PROG button

6. Miscellaneous Technical Details

| 6.1 |

Dosing – product and water running times

Our patented A.R:T. system guarantees constant product quality and safety. Despite this, with Barista pb we provide an abundance of possibilities for adjustments and changes. Product and water running times are freely adjustable for each product.

Please always make sure therefore that there is sufficient follow-up time for the water when making instant products.

With our factory dosing values you are always spot on. These can be selected for many different cup sizes during programming and can be downloaded from our Internet portal at www.servomat-steigler.com and transferred to the machine in seconds by means of flash card technology.

What are product and water running times?

The production of a drink proceeds according to a strict sequence and time scheme. Water in the mixing bowl is pumped, the mixer motor whisks and the instant product is added. Our A.R.T system results in the best standard of enjoyment and quality experiences possible in the cup depending on the product used. Simple readjustments, adaptations to the product used and heeding the water quantities are as a rule obligatory and necessary.

Water and product running times are time values that are stored in the electronic control system. To change the quantities of water, the running time of the water must be adjusted.

For example:
Time value 7.0 = 90 ccm,
Time value 8.6 = 115 ccm
Time value: milliseconds = water volume

6. Miscellaneous Technical Details

6.2

Dosing – direct grinding

With the Barista pb, Servomat has introduced for the first time "direct grinding" into vending machine technology. In contrast to the familiar "grinding into a dosing unit" in which the volume of coffee and thus indirectly the weight of the coffee can be adjusted using a dosing unit, the direct grinding works completely without a dosing unit.
While the dosing unit prepares the same quantity of coffee grounds for each drink, whether espresso, black coffee or other speciality products, with direct grinding the quantity of coffee grounds is adjustable for each drink.
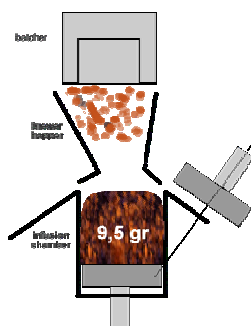
What is direct grinding?

With direct grinding the ground coffee is put directly from the grinder into the brewer with no measuring of the volume or weight of the coffee. The quantity of coffee is thus individually adjustable for each drink product. The dispensing quantity of the coffee grounds is exclusively determined by these three factors:

- Type of coffee / coffee quality / level of roasting
- Grinding level (fine / coarse)
- Running time of the grinder

(see section 6.3).

Type of coffee / coffee quality / level of roasting
According to the mixing ratio, bean quality and level of roasting the beans are ground or broken in different ways. The method of the bean grain surface determines the volume of the coffee and the weight of the ground coffee. Changing the type of coffee usually makes it necessary to adapt the dosing values.

Grinding level (fine / coarse)
The grinding level determines the size of the coffee grains and thus the air contained in the ground coffee. The weight of the coffee grains depends on the grinding level at the same volume. Changing the grinding level usually makes it necessary to adapt the dosing values (see section 6.3).

Running time of the grinder
The running time of the grinder primarily determines the volume of coffee required and thus the weight of the ground coffee. Depending on the grinding level and the type of coffee used, the coffee dispensing quantity of the grinder varies within the same time adjustment. Adjustments are necessary (see section 6.3).

6. Miscellaneous Technical Details

6.3

Grinding level settings

To adjust the grinding level, adjust the dial <u>during the grinding process</u> (make a drink or press button 8 in programming mode under the parameter "Grinder time"). Middle setting (standard)

backwards → the grinding grade gets finer
forwards → the grinding grade gets coarser.

Checking the adjustment of the grinding level

If the grinding level is too fine …

- In the production process the coffee water when released is initially very gooey or syrupy.
- The brewing time of black coffee (130 ccm) is substantially longer than 25 seconds.
- The tablet of coffee dregs that comes out is dry and stiff.
- The danger of blocking the filter canister with extremely finely ground coffee is high.

If the grinding level is too coarse

- In the production process the release of coffee will be very fast
- The recommended brewing time of 25 seconds for black coffee (130 ccm) is not reached
- The tablet of coffee dregs that comes out is wet and disintegrates easily

6. Miscellaneous Technical Details

6.4

Micro-brewer – assembly/dismantling

(1) Remove the outlet tubes from the carrier plate (stuck)

(2) Twist the outlet tube carrier plate to the right and fix using the locking lever

(3) Turn the knurled headed screw of the coffee water inlet hose anticlockwise and pull the pressure hose out of the connection
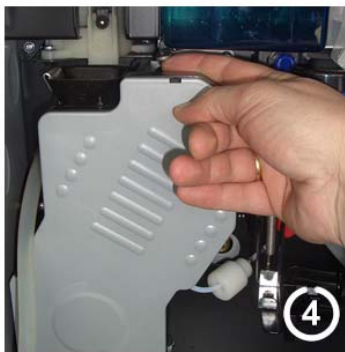
(4) Press the locking bracket upwards …

(5) … and tilt the brewer forwards and remove from the machine

(6) SHORT description
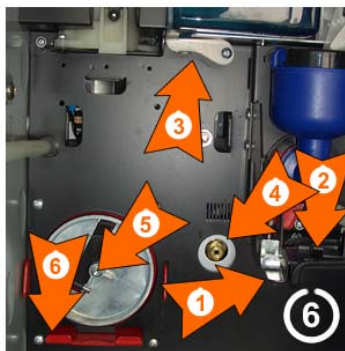
(2) Remove tubes

(1) Swing up carrier plate and lock

(4) Unscrew inlet hose

(3) Undo lock Remove brewer

Reverse the sequence to replace the brewer

6. Miscellaneous Technical Details

| 6.5 |

Micro-brewer – cleaning

Raw coffee contains about 10–15% fat and coffee wax. Even though most of it disappears during the roasting process, over time fat, wax and small particles of coffee may be deposited on the filter surfaces of the brewer. If the brewer is not cleaned regularly, these deposits may very soon affect the taste and aroma, and may even lead to the filter getting blocked and thus the appliance breaking down.

To clean the brewer, proceed as follows:

① Take the cover off the brewer casing
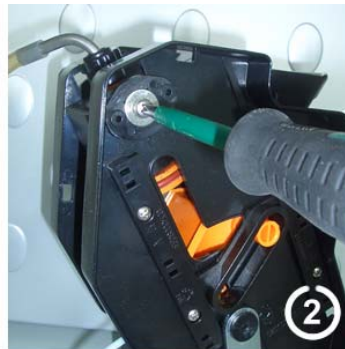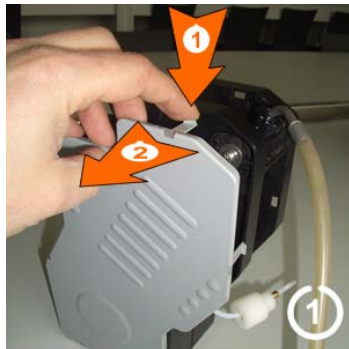
② Unscrew the screws on both sides with a screwdriver

③ Detach the adjustment aid of the brewer (regulating plate) on both sides
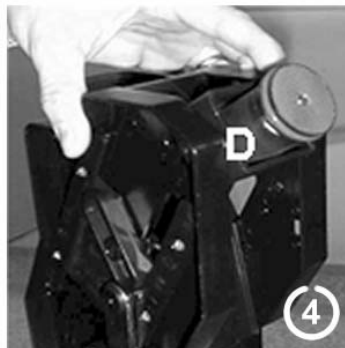
④ Turn the upper brewer seal (D) into position

⑤ Turn the drive shaft of the brewer until the lower brewer seal reaches the highest position (flush with the top edge of the infusion chamber)
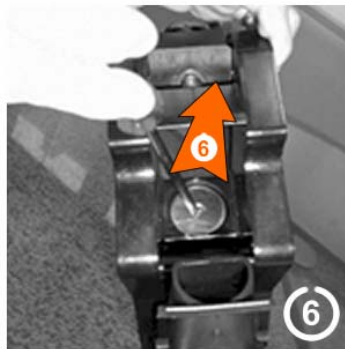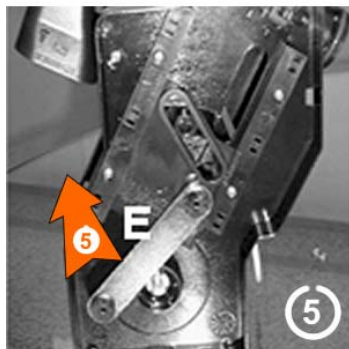
⑥ With the screwdriver loosen the filter at the lower and upper brewer seals and clear the deposits with hot water or suitable cleaning fluid.
Rinse thoroughly.

6. Miscellaneous Technical Details

<div style="text-align:right">

6.6

</div>

Micro-brewer – adjusting the amount of coffee

Different types and quantities of coffee require an individual adjustment of the brewer. The aim when adjusting the brewer is a dry coffee tablet that is fine-grained and firm in consistency after the brewing process. The brewing time of the coffee of a maximum of 25 seconds for a quantity of 130 ccm should not be exceeded.
In this way the brewer can be ideally attuned to your coffee.

①

The basic position of the upper brewer seal is adjustable for different quantities of coffee. For this reason the brewer is double-sided (arrow 1) …

②

… loosen the fastening screws and remove the adjustment aid of the brewer seal.
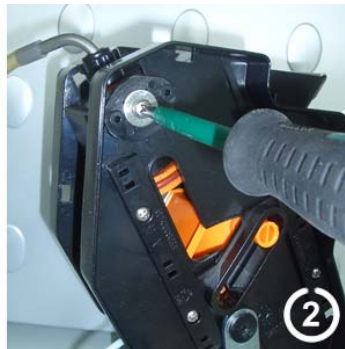
WARNING:

The respective adjustments of the adjustment aid can be chosen according to the desired coffee size/coffee quantity.

Espresso (A)
Up to 130 ccm
Up to 6.5 → 7.5 g

Standard (B)
About 130 → 180 ccm
7.5 → 8.5 g

Coffee XXL (C)
About 180 → 200 ccm
8.5 → 9.5 g max. *

Depends on the coffee and grinding level used.

The brewer seal's adjustment aid has the letters A, B or C embossed on both sides. Choose your adjustment on the basis of the desired quantity of coffee and...

③

Arrow 1: Indicates the adjustment setting (A, B, C)

Arrow 2: the paired alignment of the adjustment marking (brewer, adjustment aid) corresponds to the chosen setting
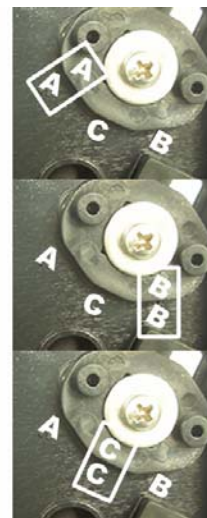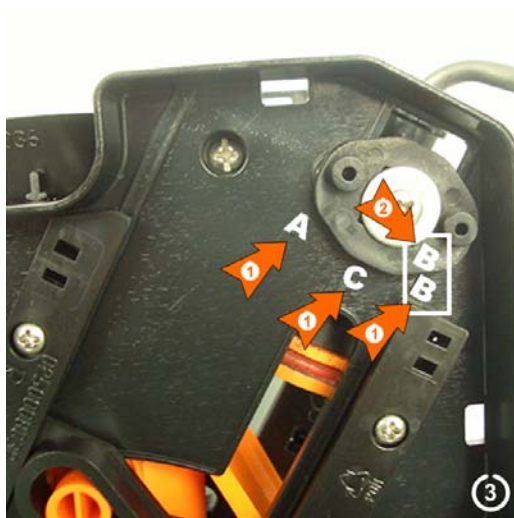
Espresso (A)
Up to 130 ccm
Up to 6.5 → 7.5 g

Standard (B)
Up to 130 → 180 ccm
7.5 → 8.5 g

Coffee XXL (C)
About 180 → 200 ccm
8.5 → 9.5 g max. *

Screw the adjustment aid to the brewer/brewer seal.

6. Miscellaneous Technical Details

6.7

Water and filter – water quality

The German Coffee Association has compiled the following principles to guarantee and optimise quality. Among the requirements for obtaining highly aromatic coffee (of course with the addition of a similarly first-class type of roasted coffee) are the following criteria:

- Fresh-tasting water = containing oxygen
- pH value of 6.5–7.5
- Total hardness between 7 and 12° of German hardness (dH)
- Carbonate hardness between 3 and 4° kH

6. Miscellaneous Technical Details

6.8

Water and filter – the water filter

On the basis of the special type of hot water provision in the Barista PB (see section 6.9 Flash heater) the use of a suitable water filter or water softener is an essential requirement if the key data relating to the water listed in section 7.1 are not observed. Therefore…

With pressure systems we always recommend a water filter for decarbonisation before switching on the appliance.

What does a water filter do? (e.g. Brita BC 06)

1. The activated carbon removes unpleasant smelling and tasting substances, e.g. chlorine and chlorine compounds as well as their residue.

2. The ion exchange * reduces among other things lime (carbonate hardness) and certain heavy metals that may also build up in household appliances.

Calculating the capacity of a filter cartridge – e.g. BC 06

Carbonate hardness	Capacity	Number of cups/mugs *	
In kH	In litres	130 ml	150 ml
6° kH	700	5300	4600
8° kH	520	4000	3400
10° kH	420	3200	2800
12° kH	350	2600	2300
14° kH	300	2300	2000
16° kH	260	2000	1700
18° kH	240	1800	1600

Procedure to change the aqua aroma filter cartridge:

1. Unscrew filter cartridge.

2. Screw in new filter cartridge, tighten only slightly.

3. Test filter system for leaks

* The aforementioned materials are food safe. By impregnating the activated carbon with silver contamination of the filter materials is prevented.

Espresso systems work with especially high temperatures and high water pressure. Therefore, our mobile machines are equipped with tank systems with tank filter as standard.

Result: More aroma, less lime, reduced service and operational costs, minimised downtime.

Tips for the application of the filter cartridge:

Recommended duration of use 6 months or see table for capacity.

6. Miscellaneous Technical Details

	6.9

Water and filter – the water circulation

For the first time temperatures are independent and individually adjustable for each product used

For maximal coffee pleasure

With the Barista, Servomat has paved the way for separate hot water supplies in one appliance for the first time. For each product the aim is to obtain the correct temperature. The hot water preparation temperature for instant products as well as the temperature of the water for coffee for the brewing process is individually adjustable.

General temperature values:

- Instant products (topping, chocolate): 85°C
- Brewing temperature of the water for coffee: 92°C–96°C

Instant products would burn at temperatures higher than 85°C. The extraction of coffee from the whole bean is insufficient below 74°C; not sufficiently ideal for instant water temperature to be in the region of 85°C.

Instant water

→ **85 °C**

Coffee water in the brewing process

85 °C → 120 °C

Independent and individually adjustable

The Brita water cartridge reduces the lime content of the water by a max. of 10 grades of hardness

Tank in tank solution

till 85 °C
watercirculation -1- for Instant-Products

watercirculation -2- for Coffeewater

85°C till 120°C

drip tray
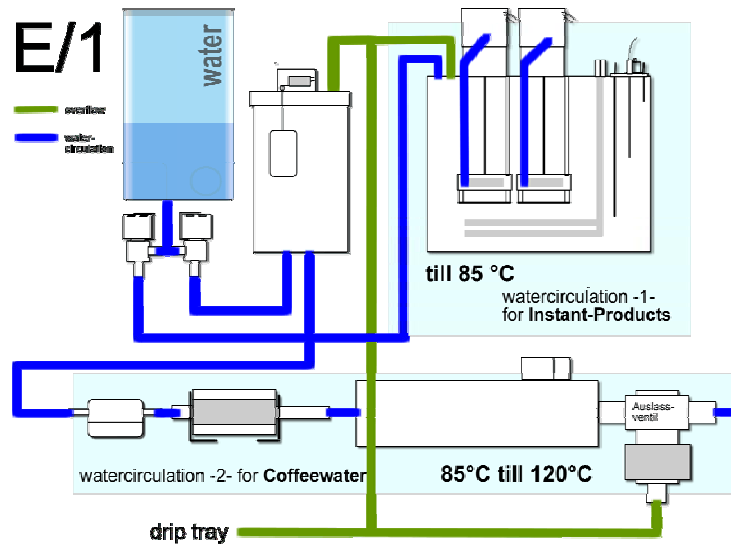
The use of a water filter or descaler is absolutely necessary if the water quality is not good

till 85 °C
watercirculation -1- for Instant-Products

watercirculation -2- for Coffeewater

85°C till 120°C

drip tray
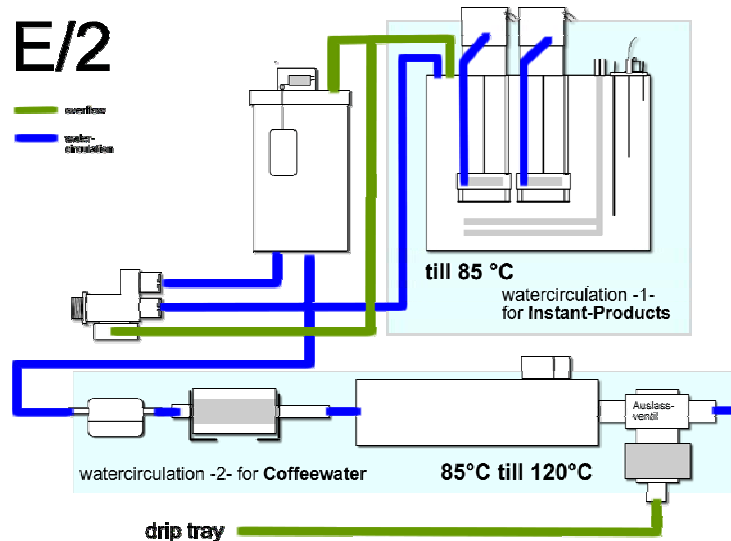
6. Miscellaneous Technical Details

| 6.10 |

### Water and filter – description of water cycle parts

Water tank (E/1):
The water tank is made of blue transparent plastic, has a capacity of about 3.5 litres and has at the rear a snap-in valve for easy influx of water into the appliance. If the water tank is removed, the valve closes automatically.

Inlet valve (E/1):
The inlet valve switches between the water tank and the surge tank/instant boiler and opens if there is a need for fresh water to fill up the water circulation system via the surge tank/float switch or the instant boiler's water sensor. This valve is only adjustable for the cold water area.
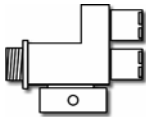
Double inlet valve (E/2):
The double inlet valve for (1) the instant boiler and (2) the surge boiler is only suitable for the depressurised area. If unfiltered water is contaminated the valve may potentially no longer open or close and this can very quickly lead to malfunctioning.
A pressure cell that is mounted onto the overflow system of the water circulation mechanically locks the inlet valves, independently of their electronic control. On the display OFF 6A usually indicates that the pressure cell is filled with overflow water. During the servicing process this must be completely emptied. A siphon pipe (about 30 cm) mostly prevents time-wasting assembly and dismantling of the valve during servicing.
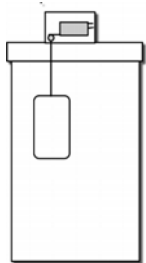
Surge tank:
The surge tank exclusively provides water circulation system 2 (water for coffee) with cold water. Using a float, a float switch registers the level in the cover area. A loose float or a defective float switch allows the surge tank to overflow, which then mechanically blocks the water inlet valve via the overflow pipes (only with the E/2). In the tank version (E/1) the overflow is directly connected to the water bowl. A maximal water volume of only 3.5 litres can leak out. Mechanical overflow protection, as for the E/2, is therefore not necessary.
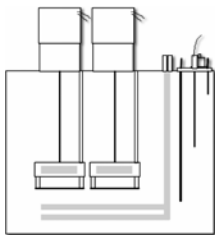
Instant boiler:
The instant boiler exclusively provides topping products or water for tea with hot water at about 85°C. The pumping motors at the cover of the boiler each provide the desired mixing unit/pipe with hot water. In addition, the boiler is equipped with a heating system (1300 Watts), which has 2x reversible safety temperature limiters as well as protection against dry running (irreversible temperature assurance) and the electrical temperature sensor.
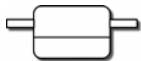
Flow meter (water counter):
The water counter measures the quantity of water for coffee (not instant water). The water counter registers the revolutions, and thus indirectly the flow in ccm via two magnets in the impeller. The flow meter is not suitable for hot water.

Pressure pump:
The pump requires pressure between 7 and 9 Bar and exclusively provides the flash heater with cold water. The pump is not suitable for hot water.

Flash heater:
The function of the flash heater is as a continuous flow water heater and delivers indirect heating power for the cold water brought in by the pump. The integrated heating element with 700 Watts of power heats the brass body of the flash heater. The brass block releases its thermal energy into the water flowing through it. At the centre there is a ceramic core with very good thermal behaviour. The water streams through the narrow gap between the brass and the ceramic core and is thus brought to its adjusted set point temperature. The temperature regulation accepts an electronic temperature sensor. For safety the heating is assured by a safety temperature limiter, whose switching point is around 140°C. The safety temperature limiter is reversible. The flash heater reacts very sensitively to calcification based on the fact that the appliance must basically be operated using suitable water. Decarbonisation filters ensure suitable water.
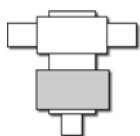
Outlet valves:
The outlet valve is bolted directly to the flash heater. As a two-way valve it leads brewing water from the flash heater into the brewer during activation. In a deactivated state it unloads the outlet via the overflow into the drip tray (two-way valve). To avoid contact between the valve and the brewer motor it is mounted slightly aslant to the flash heater.

6. Miscellaneous Technical Details

6.11

First aid – error messages

In the event of malfunctioning or error the Barista as a rule indicates important information with regard to the malfunction via the display. To delete error messages after successful repair switch the appliance off and on again (reset).

No connection between CPU and the payment system

→ no payment system possible. If this malfunction appears, change the CPU

OFF 2

The EA ROM memory is defective

→ these are to be found on the CPU and cannot be changed (or only by skilled specialists with experience of SMD soldering and equipment). The CPU must be changed. In this case, backup via the flash card onto a PC is very wise and saves time.

OFF 5
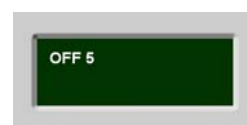
No water for filling up

E/1: the water tank is empty
→ refill

E/1: Hose guide of the drip tray slopes down to the inlet valve
→ Set point: slope to the drip tray

E/1: Overflow outlet of the instant boiler to the drip tray is blocked or has a kink in the hose. Water cannot drain into the drip tray.
→ Correct hose guide

E/2: the water delivery is cut off:
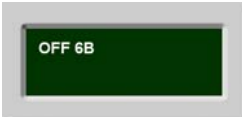
OFF 6A

→ Open angle valve.

E/2: The safety membrane of the inlet valve has interrupted the water delivery (inlet valve is locked mechanically).
→ Pull the tube out of the pressure cell and let out the built-up water
→ Ventilate the pressure cell.

Condensation in the lid of the instant boiler that drips into the overflow
→ Adjust the hose guide in such a way that this projects "over the lid of the boiler" so that condensation drains back into the instant boiler.

Error in the area of the water probes (instant boiler) or defective float/float switch in the surge tank

Water loss in the instant boiler

OFF 6B

Although no sale has taken place the water level probes of the instant boiler indicate water loss, which must be removed by control of the inlet valve.
→ Leakage in the appliance

No water in the surge tank

OFF 6C

E/1: the water tank is empty
→ refill

E/1: Hose guide of the drip tray slopes to the inlet valve
→ Set point: slope to the drip tray

E/1: overflow outlet of the surge tank to the drip tray is blocked or has a kink in the hose. Water cannot drain into the drip tray.
→ Correct hose guide

E/2: the water delivery is cut off:
→ Open angle valve.

E/2: The safety membrane of the inlet valve has interrupted the water delivery (inlet valve is locked mechanically).
→ → Pull the tube out of the pressure cell and let out the built-up water → Ventilate the pressure cell.

Condensation in the lid of the instant boiler that drips into the overflow
→ Adjust the hose guide in such a way that this projects "over the lid of the boiler" so that condensation drains back into the instant boiler.

Error in the area of the water probes (instant boiler) or defective float/float switch in the surge tank

Water loss in the surge tank

OFF 6D

Although no sale has taken place the float/float switch of the surge tank indicate water loss, which must be removed by control of the inlet valve..
→ Leakage in the appliance

Not enough water for coffee within the specified time

OFF 7

Brewer is blocked → Carry out cleaning programme, clean filter

Grinding level is too fine → adjust grinder

Flow meter is defective, no water flow is indicated on the CPU → replace flow meter

Loss of dosing data (default data)

OFF 10

Reload the default data into the appliance (CONFIG file) with the aid of the flash card.

Any missing data in the electronic control system attracts attention by an indication in the variable values outside the domain. The abrupt switching off of the appliance during a memory read/write access as well as external influences such as strong magnetic fields or extra-strong voltage peaks on the power supply can cause these errors. If the dosing values are not loadable the CPU must be changed.

Filling level control of the instant boiler out of order

OFF 14

Water level probes are calcified / steamed up / oxidised → descale, clean

The cable from the CPU to the filling level sensors is broken

Filling level control of the surge tank out of order

OFF 14C

Float switch is jammed / defective → change

Float is jammed → check on ease of movement

Cable from the CPU to the filling level sensors is broken

Programming button is jammed

OFF 16

Casing cover of the programming button is jammed → change if necessary

Malfunctioning of the membrane keypad

OFF 17

Replace membrane keypad

24 Volt supply voltage is missing

OFF 24A

Toroidal transformer is defective → change

Remove line break from the transformer to the components of the appliance (such as the CPU)

Fuse cut-out on the CPU → find the cause (short circuit, stiff motors, etc.) and change fuse

CPU circuits are broken → a user (motor, etc.) possibly has a defect. CPU must be changed/repaired.

A CPU transistor is defective or the 6.3A fuse on the circuit board has been disconnected

OFF 24B

Replace transistor. CPU is defective and must be replaced. Look for the cause in the users (short circuit, jammed motors, etc.)

Flash heater is too hot

OFF 32A

Additional circuit board of the CPU is defective, the triac for heating has short-circuited → change board or triac

Flash heater is too cold

Safety temperature limiter has disconnected from the flash heater → reverse

Additional circuit board of the CPU is defective, the triac for heating no longer operates → change board or triac

700 Watt heating element no longer heats → change

Temperature sensor of the flash heater does measure

The plug of the temperature sensor is not plugged into the additional circuit board of the CPU → plug in pin again

Circuit of the temperature sensor is broken → change

Instant boiler is too hot

CPU is defective, the triac for heating has short-circuited more → change board or triac

Instant boiler is too cold

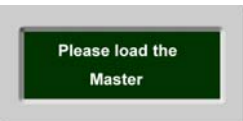One or both safety temperature limiters of the instant boiler have disconnected → reverse

CPU is defective, the triac for heating no longer operates → change board or triac

1300 Watt heating element no longer heats → change

Temperature sensor for the instant boiler no longer measures

Plug of the temperature sensor is not plugged into the CPU → plug in pin again

Circuit of the temperature sensor is broken → change

CPU with no software

No appliance software has been loaded onto the CPU → upload again

7. User Tasks and Obligations

<div style="text-align: right">

7.1

</div>

General cleaning instructions

These cleaning instructions are an expansion of the user instructions on the inside of the cover of the appliance. These cleaning instructions consist of daily, weekly and monthly cleaning. Please adhere to these cleaning instructions. The machine will be more hygienic and malfunction less frequently.

7. User Tasks and Obligations

<div style="text-align: right">

7.2

</div>

Daily cleaning

1. Fill up instant products	First of all check the levels of all products present in the appliance. Beforehand, shut the red flap of the product container. Now fill up with the product described on the container. Afterwards, reopen the red flap of the product container.
2. Fill up coffee beans	Check the level of the coffee beans and fill up as required. Make sure that you only fill up with the coffee that has been dispensed in this machine.
3. Carry out rinsing programme	If a water tank is provided, first of all make sure there is enough water in the water tank. Open the doors. Press the service button inside the door of the appliance. On the screen a programme menu is displayed. Press button 4 on the selection keypad to get to the rinsing programme. Another menu is displayed on the screen. Now place a large receptacle under the outflow. To clean the brewer now press button 1. For this use the cleaning tablets recommended by us. During this programme follow the instructions on the display. After cleaning the brewer the menu reappears. At this juncture press buttons 2 and 3 several times in succession for the individual outlets and mixing bowls. Press the individual buttons several times until you have flushed through about 3 litres of hot water. Refill the water tank with water.
4. Clean receptacle for catching water	Remove the drip tray through the open door as follows: press down slightly and pull forwards and out. Remove the drip grille from the tray and clean both parts under a flow of warm water. Afterwards, put the drip tray back in correctly.
5. Clean coffee grounds container	Beforehand, empty the coffee grounds container. Clean it in a specially designed rinsing solution. Dry the container well.
6. Clean the doors of the product outlet area	Clean the inside and outside of the doors in the product outlet area. Residue from product splashes may be present here. Clean these parts with a damp sponge or cloth.

7. User Tasks and Obligations

7.3	

Weekly cleaning

The weekly cleaning includes the daily cleaning from points 1 to 6 plus…

7. Clean the mixing bowls	Remove the mixing bowls as follows: turn the red retaining clip to the left. Now the mixing bowl can be removed in a forward direction. Remove the mixing bowls complete with pipe and outlet bracket. If your appliance has the function to make water for tea, please remove the outlet pipe and outlet bracket. Clean these parts in a specially designed rinsing solution. Dry these parts carefully and reassemble.
8. Clean the water storage container	Lift the water storage container (blue) slightly and pull out in a forward direction. Clean the water storage container by rubbing off the residue under a flow of warm water. Remove lime scale with water containing a small amount of vinegar. Afterwards, rinse the water tank out well several times. If there is a filter canister in the water tank, clean this in exactly in the same way.
9. Clean product chutes	Remove the product chutes from the containers as follows: press the product chute lightly against the container and turn the latter to the left – anticlockwise. Clean the product chutes in a specially designed rinsing solution. Dry the product chutes well before reinserting them. Damp product chutes result in blockages.

7.4	

Monthly cleaning

10. Clean product containers	First of all close the red flap on the product containers. Remove the product containers by lifting them slightly and pulling out in a forward direction. Empty out the remains of the product. Remove the product chutes from the product containers. Place the product containers and the product chutes in a specially designed rinsing solution. Rub the product containers clean with the aid of a sponge. Dry the product containers well. For the best results, leave to dry overnight and reinsert and fill the next day.
11. Clean coffee bean container	Beforehand, shut the slide of the product container. Lift the container up. Empty the remains of the coffee beans out of the container. Clean the container in a specially designed rinsing solution. Afterwards, dry the container well and reinsert. Reopen the slide of the container and refill with coffee beans.
12. Clean ventilation duct	If you have dismantled the product containers and mixing bowls you can remove the plastic drawer over the mixing bowls and beneath the product containers in a forward direction. This is the extractor duct for the steam suction of the water. It may be the case that some product is extracted as well. Clean this ventilation duct with a specially designed rinsing solution and dry well before reinserting.

7. User Tasks and Obligations

Removing the Appliance from Service

In the event of short-term "taking out of service", e.g. at holiday times, it is necessary to clean the appliance beforehand and empty out the products and water.
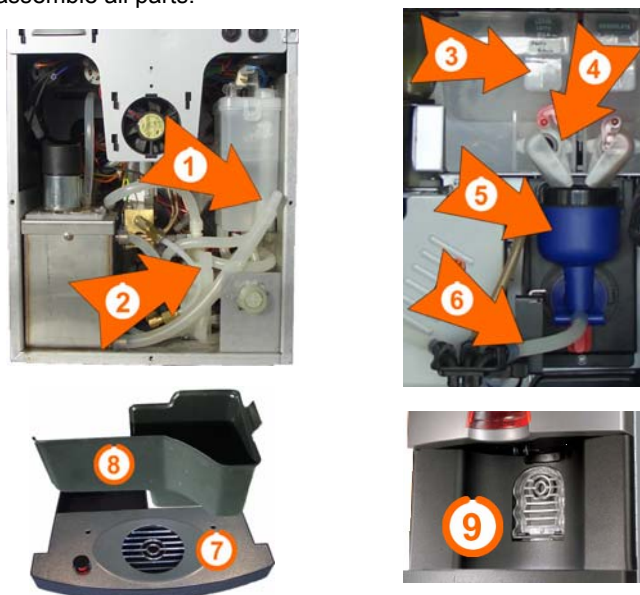
Even if a change of location is planned, e.g. with a demonstration or test model, please proceed with the dismantling instructions. So that you can also enjoy the Barista after transportation, please follow these dismantling and out of service instructions.

Carry out the rinsing programme as described in the cleaning instructions.

Your machine is connected to a "fixed" water supply

   a) Shut down the water supply (angle valve)
   b) Open the back panel of the appliance and remove the cover.
   c) Now you can see on the right-hand side a see-through container and an instant boiler filled with water. At the outlet of this container there are drainage hoses, each with a stopper (seal). Take one of the larger containers and remove the stopper. Completely empty the boiler and the surge tank containers. Close up the hose again.
   d) Close the back of the appliance.

Empty all product containers. Clean the product containers (3) and the product chutes (4) as well as the mixing bowls (5) and the outlet tubes (6) as described in the cleaning instructions.
Empty and clean the drip tray (7) and the coffee grounds container (8).
Clean the drinks dispenser (9).
Reassemble all parts.

The appliance can now be transported or stored.

Your partner for service and assistance

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servomat steigler 89179 Beimerstetten, Robert Bosch Str. 3

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