●cino

xs Presso-Bean E3
Operating manual
5th edition 03/2006
Software version PFXSED 2A / 03.03.2006

A

A wide variety of
coffee specialities

Hot drink systems without
Cappuccino are today almost
unthinkable. First of all the
site and taste of wide variety
of coffee specialities cheer up
the hearts of the consumers and
thus revs up the turnover.
In the A.R.T. system you can
find the following range :
Cappuccino
Cappuccino Extra
MoccaCino
Café Au lait
Espresso

R

Recipe
step program

The high quality of drinks produced
with the A.R.T. system can be
achieved only with the aid of finely
tuned step production program.
Coffee, topping/whitener, chocolate
and fine filtered hot water are
step by step transformed into
creamy drinks.
Each speciality of coffee has its
independent step-by-step
production.

T

Technical
quality control

Our electronic FlashCard-
memory guards A+R. The
service agent can adjust the feed for
some more/less water/product depending
upon the customer's requirement.
He however does not have any access to
R – recipe step production.

Conclusion:
The A.R.T. program guarantees
a consistent quality of drinks, the
level of which is simply determined
by the quality of products used.

This operating manual is meant for the following machine
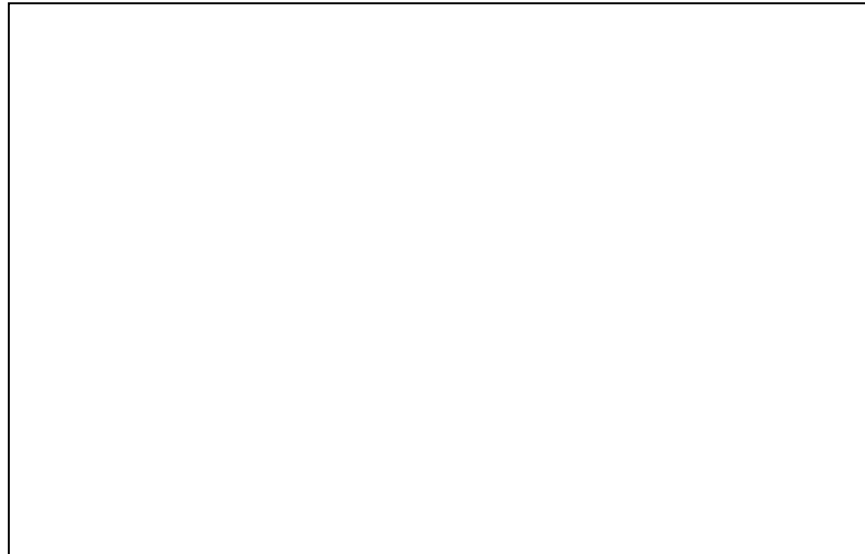
Identification label of your machine

This manual is an integral part of the machine and must always be available in the vicinity of the machine for reference, till such time as the machine gets disposed off

If the manual gets misplaced or damaged, for reordering you must provide the identification data given on the rating plate of the machine to the manufacturer.

Table of contents

1. Important notes

1.1	Details concerning the quality

	○ **The quality** of the machine is intended only for production with coffee, cocoa, tee or other such drinks the machine is meant for.	
	○ **The typical application** is as vending machine for customers, guests and employees.	
	○ **The installation, filling-up and cleaning** must be done according to the specifications given in this manual, by our technical partner's staff properly trained by servomat steigler.	
	○ **For changing the quality of coffee, or the product quality**, a readjustment by servomat's technical partner is a necessary prerequisite.	
	○ **The machine must be installed** in a dry, closed room free of any external environmental effects (e.g. strong vibration).	
	○ **The size and capacity,** and the associated filling-up/cleaning and servicing costs of model XS E are intended for up to 50 portions per day, maximum 36000 portions in 24 months.	
	○ If the machine is filled up and cleaned by **untrained staff** an extensive induction by technical partner of servomat is absolutely necessary.	
	○ The manufacturer will not bear any liability for damage caused by **acts of vandalism** or improper handling (e.g. manipulation attempts with coins, tokens, cashless means of payment .	
	○ **Wear parts** are those parts which undergo a natural wear and tear or have a normally limited serviceable life. These parts can fail during the statutory period of limitation applicable for claims, i.e. 24 months. However, in legal terms this is not to be seen as a defect. Following parts are covered here: O-rings/lighting devices/V-rings/grinding disk/mixing motors/valves and water heating elements in case of calcification.	
	○ **The use of water softners/ filters,** such as BRITA-water filter is strongly recommended at installation sites where water hardness is more than 9° degree according to German standards. Considerable functions of our coffee machine are directly linked to the water conveying parts, such as valves, boiler, heating elements.	
	○ **Regular servicing** must be done according to the enclosed checklist (minimum twice a year, however, after every 5000 portions). During servicing wear parts must replaced according to the enclosed list in order to ensure overall functioning.	
	○ **The guidelines for cleaning and hygiene** given this manual must be followed in order to ensure flawless functioning of our machine.	
	Beimerstetten, den 01.01.2002 Text contents are protected by copyright.	

1. Important notes

Servicing checklist

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1.2

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Following jobs must be performed within the purview of maintenance guidelines:

Which parts?	What must be done?	
Water tank supply or hard water supply	- Clean the water tank and filter set - Replace the seal O-ring inside - Replace the water filter cartridge - Replace the water filter cartridge for hard water	
Boiler	- Dismantle and clean the boiler, decalcify if necessary - Replace boiler cover gaskets - Clean temperature sensor, decalcify if necessary	
Valve block	- Dismantle and clean the valve block, decalcify if necessary - Replace plungers of all outlet valves	
Grinder and portioning unit	- Clean grinder and replace grinding disks - Clean and check the portioning unit	
Brewer	- Remove and clean the brewer - Replace sieve and plunger O-rings	
Mixing unit	- Replace and clean the mixing bowl - Replace mixer flange O-ring - Replace mixer motor V-rings - Replace O-ring of mixing bowl bush - Replace mixer disk - Inspect mixer motor, replace if necessary	
Fan	- Dismantle the fan and clean - Dismantle the fan duct and clean - Dismantle the fan duct and clean	
Product container	- Inspect the products, clean the product containers if necessary - Clean the product chutes	
Drip pan and coffee set container	- Clean drip pan and coffee set container	
Payment / Coin acceptor unit	- Inspect and clean the payment system/ coin acceptor	
Water and electrical plug connections	- Inspect all water and electrical plug connections	
Portioning, temperature and functioning	- Check portioning of water and product - Check degree of grinding of coffee, adjust if necessary - Check the temperature - Final inspection and test run, coin acceptance if necessary	

2. Cleaning instructions

2.1

General cleaning instructions

This cleaning instruction is an extension of the user instructions given on inner surface of the machine cover. These cleaning instructions constitute instructions for daily, weekly and monthly cleaning. Follow these cleaning instructions. This would ensure more hygiene and lesser malfunctions.

2.2

Daily cleaning

1. Fill up instant products: First of all check the level of all existing products in the machine. Close the red shut-off flap of the product container in advance. Now fill in the product given on the product container. After this again open the red shut-off flap of the product container.

2. Fill up coffee beans: Check the level of the coffee beans, refill in necessary. Kindly ensure that that you use the same quality of coffee filled earlier in the machine .

3. Carry out the rinsing program: If you are using a water tank supply, first ensure that there is sufficient water in the tank. Open the doors. Press the program button on the inner side of the machine door. A program menu is shown on the display. Press key 4 on the keyboard to get to the rinsing program. Another menu is shown on the display. Now place a large vessel under the outlet. For cleaning the brewer press key 1. For this, use cleaning tablets recommended by us. During this program, follow the instructions on the display. After the brewer is cleaned the menu appears again. Following this, press keys 2 and 3 multiple times for the individual outlets and mixing bowls. Press individual keys multiple times until around 3 litre of hot water has been used for rinsing. Fill up the water tank again with water.

4. Clean the water drip pan: With the door open, remove the drip pan as follows: lightly press downwards and pull out. Remove the grid from the drip pan and clean both parts under warm running water. After that again set the drip pan properly in place.

5. Clean coffee set container: Empty the coffee set container as before. Clean it using the rinsing solution meant for the purpose. Again dry up the container properly.

6. Clean the doors in the product dispensing area: Clean the doors in the product dispensing area from inside as well as outside. There could be deposits here due to the splashing of the product. Use a damp sponge or cloth to clean these parts.

2. Cleaning instructions

Weekly cleaning

This cleaning process includes the daily cleaning from item 1 to item 6.

7. Clean the mixing bowls: Remove the mixing bowls as follows: Turn the red locking clamp to left. Now you can pull out the mixing bowl. Take out the mixing bowls completely with pipe and discharge angle. If your machine has the tea water function, remove the outlet pipe along with the discharge angle. Clean these parts using the rinsing solution meant for the purpose. Again dry up these parts carefully and reinstall them.

8. Clean the water storage tanks: Lift the water storage tank (blue) slightly using the handle, and pull out. Clean the water storage tank by rubbing off the deposits under warm running water. Remove lime deposits with mild vinegar. Afterwards rinse the water tank several times. If you are using a filter set in the water tank clean it the same way.

9. Clean the product chutes: Remove the product chutes from the product container as described below: Press the product chute lightly against the product container and turn it anticlockwise. Clean these product chutes using the rinsing solution meant for the purpose. Again dry up these products properly before reinstallation. Product chutes get clogged if they are wet.

Monthly cleaning

This cleaning process includes the daily and weekly cleaning from item 1 to item 9.

10. Clean the product container: First of all close the red shut-off flaps on the product containers. Take out the product containers by lifting these slightly at the front and then pulling them out. Pour out the remaining product. Remove the product chutes from the product containers. Put the product containers and chutes in a rinsing solution meant for them. Wipe the product containers clean with the help of a sponge. Dry out the product containers properly. Preferably leave them to dry out overnight and install them again next day and fill in.

11. Clean coffee beans container: But first close the slide of the product container. Lift the container upwards. Empty the remaining coffee beans from the container. Clean the container using the rinsing solution meant for the purpose. After this ,dry up the container properly and reinstall it. Again open the slide of the container and fill up the coffee beans.

12. Clean fan duct: When you have taken out the product containers and the mixing bowls, you can pull out the plastic drawer above the mixing bowls and below the product containers. This is meant to be the suction channel for water vapour suction. Here it is possible that the product also gets sucked along. Clean the fan duct using the rinsing solution meant for the purpose and dry it up properly before reinstallation.

2. Cleaning instructions

2.5

Cleaning aids

ⓘ

Use Clean Set specially prepared for the machine . (Clean Set for XS E3)
The Clean SET allows quick and simple cleaning of the machine. Machine specific Clean Sets were put together for XS E2 and XS E3.

The Cleans Set consists of:

- Pre-assembled mixing bowl and outlet pipe for cocoa
- Pre-assembled outlet pipe for water meant for tea
- Product chute for coffee
- Product chute for milk (topping or whitener)
- 6 mm cleaning brush for discharge angle
- 10 mm cleaning brush for outlet pipe 9 x 6
- 5 Litre cleaning bucket
- Yellow sponge cloth
- Scratch-free sponge
- Cleaning tablets for micro espresso brewer
- HACCP cleaner, diluted and ready for use.

Procedure

ⓘ

With the aid of these Clean Sets you can easily replace fouled parts. The machine again becomes immediately operational.

Perform steps as in case of daily, weekly and monthly cleaning. Using the Clean Set you can immediately replace these parts placed in a rinsing solution. The machine again becomes immediately operational. The replaced parts should then be sprayed with the HACCP cleaner and must be placed in a rinsing solution diluted with the HCCP. After reaction time of approximately 45 minutes you can rub off these parts with a sponge cloth, rinse them under clear water and allow to dry up well.

For your machine you can order as follows:

Article number   Article

100 545   Clean Set for XS E2 machines
100 546   Clean Set for XS E3 machines

In the supplied Clean Set there is an order list which can be subsequently used to order cleaner, brushes, sponge cloths etc..

Remember that:

Cleaning with our Clean Sets is

-     **quicker and simpler**
-     **fresher and more appetizing**
-     **more hygienic and causes lesser malfunctions.**

2. Cleaning instructions

Putting out of operation

If the machine is put out of operation for a short period, for example, during holidays, it is necessary that the machine be cleaned beforehand, and the products and the water be emptied.

Even when you plan to change the location, for example in case of a machine meant for demonstration or testing, kindly proceed as explained in the dismantling instructions. Please follow the instructions for dismantling and putting the machine out of operation, to ensure that you can enjoy CINO XS even after the transport.

CINO XS is mobile, flexible and easy to transport.

Procedure:

1. Run through the rinsing program as described in the cleaning instructions.
2. **Is your machine "fixed" to the water supply? When not – go to item 3.**
   a) Close the water supply (corner valve)
   b) Open the rear wall of the machine and remove the cover.
   c) Now you can see the transparent container filled with water. At the outlet of the container there is a pipe with a stopper. Take a large vessel and open the stopper. Empty the container completely. Again close the pipe.
   d) Restore power to the system. Briefly press the door contact switch so that the machine goes into operating mode.
   e) Now activate the rinsing through the tea water pipe. Rinse until there is no more water. The machine is now depressurised. You can now shut down the machine.
   f) On the bottom side of the machine base there is a drain plug for the pressure boiler. Loosen this screw carefully. Completely empty the pressure boiler. Again close the pipe.
   g) Again close the rear panel of the machine

Empty the cold water tank and the pressure boiler. During transport under 0° C there is a risk of frost build-up.

3. Empty the water tank and clean it as described in the cleaning instructions. For emptying the cold water tank and the pressure boiler, proceed as described under items 2 b) to g).
4. Empty the product container. Clean the product containers and the product chutes along with the mixing bowls and outlet pipes as explained in the cleaning instructions .
5. Empty and clean the drip pan and the coffee set container.
6. Clean the drink outlet.
7. Reassemble the parts. The machine is now ready for transport / storage.

3. Technical data

3.1

Technical data sheet

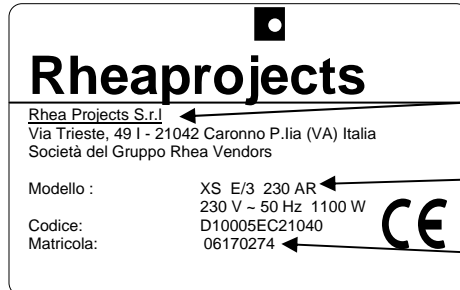| **Dimensions**	Height (closed) Width (closed) Depth (closed)	520 mm 379 mm 470 mm
Weight	Leer Voll	38 Kg 44 Kg
Electrical Values	Voltage supply Max. power consumption Consumption with approx. 50 cups per day (130 ml)	230 Volt 50 Hz 16 A 1250 Watt 2,4 Kw/h
Transformer	**Primary** 230 V (black) +/- 10% 220 VA **Secondary** 8.5 V (red) 10VA / 26 V (green) 90VA / 30V (blue) 120VA	230 Volt 50 Hz 8,5 V / 26 V / 30 V
Grinder	Voltage supply Output Fuse	24 V DC 50 W / 2600 UpM 5,0 A time-lag
Pump	Voltage supply Output (Model 1106) Electromagnetic heavy-duty pump	220 V 50 Hz 48 W max. 7 bar
Pressure boiler	Heating element power Capacity Heating –up time	1100 W 0.5 litre approx. 2 minutes
Product motor	Voltage supply Running speed	24 V DC 90 rpm
Mixer motor	Voltage supply Running speed	24 V DC 16000 rpm
Coffee portioning unit	Voltage supply Min/ max coffee portion	24 V DC 7 – 9 Gr.
Coffee container	Coffee beans capacity	Approx. 1kg
Cocoa container	Cocoa product capacity	approx. 0.7 kg
Milk container	Topping/ coffee whitener capacity	approx. 0.4 kg
Individual container	Tea / soup capacity	approx. 0.4 kg

4. General information concerning the machine

	4.1

Rating plate

The rating plate is an important label meant for information. Please always mention the model and machine number for any spare part order placement.

The rating plate is located inside the right side of machine . The rating 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 :   XS E/3 230 AR
              230 V ~ 50 Hz 1100 W
Codice: D10005EC21040
Matricola: 06170274

CE

Manufacturer`s data

Machine data

Machine number

Definition of machine data

XS	Machine type	XS
E / 3	Model - Design	E = Bono / espresso 3 = Number of instant Product container

	4.2

Kindly note

You can take good care of following parts by proper operation, and avoid breakdowns:

Pump:	Idle run and dynamic pressure can damage the pump.	- Grind not too fine

		- The sieves of the
		  brewer must
		  not be blocked

		- Do not fill up any
		  hot water in the
		  water tank

Grinder:	There is blockage or sticking.	- Grind not too fine
		- Clean periodically
Brewer:	There is blockage as the cleaning program is not carried out	- Carry out the cleaning program daily
		- Clean the sieve carefully

4. General information concerning the machine

4.3	Safety notes

This machine is manufactured keeping in mind the safety aspects. Nevertheless, independent installation and operation of the machine may only be entrusted to those persons who have completed 18 years of age. Only that person is suitable for the job, who on account of his training and experience is qualified to handle such equipment, and is familiar with the relevant safety and accident prevention regulations, and thus is in a position to identify and avert danger.

Before start-up this operating manual must be read in its entirety in order to ensure safe a start-up and a flawless operation.

Caution: Disconnect the mains plug before carrying out any maintenance jobs!

The machine was manufactured in compliance with the following European safety regulations:

- **EN 60 335 - 1**
" Safety of electrical household appliances and similar products".

4.4	Warning notes

- **Caution:** there are hot parts on this machine. The temperature can be more than 90°C for specific parts on the machine.

- Never operate the machine with a defective power supply.

- Never immerse the machine in water.

- For cleaning the machine without cleaning program always pull out the mains plug from the socket.

- Never allow children to work on the machine unsupervised

4. General information concerning the machine

Safety devices

| 4.5 |

- Door contact switch

- Manually connected safety thermostat for the boiler

- Time controlled protection for the pump

- Time controlled protection for the geared motor of the coffee brewer set

- Time controlled protection for the coffee grinder

- Brewer water inlet protection exists

- Brewer protection not correctly installed or does not exist

Accessories

| 4.6 |

A wide range of accessories and special parts are available to derive additional benefits from the machine: The installation kits are delivered along with the installation instructions that must be followed to ensure the safety of the machine.

- XS coin unit kit   Art. no. 100503

- XS AQUA module   Art. no. 100501

- XS Multicontainer cabinet   Art. no. 100500

- XS Multi-Table base   Art. no. 100517

- XS front panel (various designs)

- XS accessoires (cups, pots, spoons, tablets, sugar candy, cup warmer)

- XS BONO basic spare parts set (all necessary parts)

- XS BONO cleaning tablets for MICRO-espresso brewer

5. Overview of machine parts

5.1

Rear panel view

Rear casing

CPU / controls

Product motor

Service door

Mains switch

Main fuses

Expansion PCB

Compensating tank

Flowmeter

Brewer motor

Hard water supply
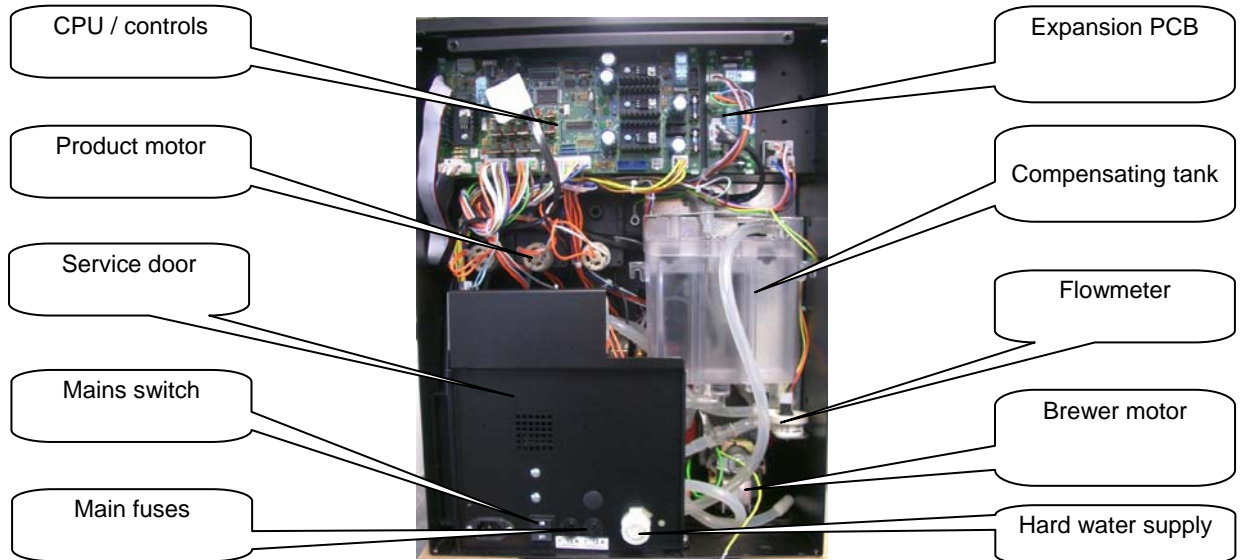
Rear casing (with open service door)

Fuse protection

Transformer

Fan

Water inlet valve

Rectifier for the grinder

Feed pipe of water tank inlet valve

Pressure boiler
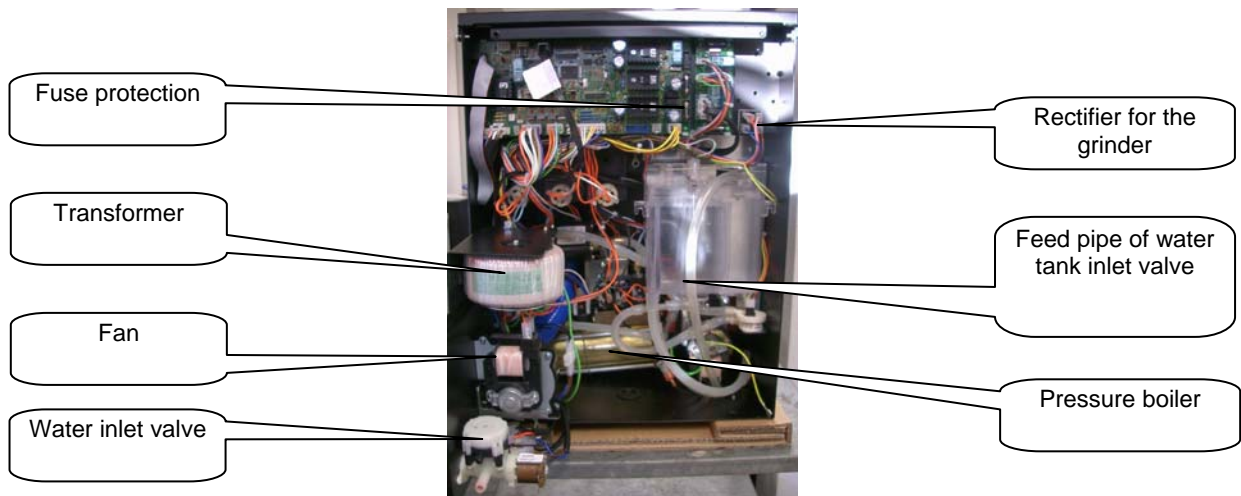
Rear casing (pump)

Pump
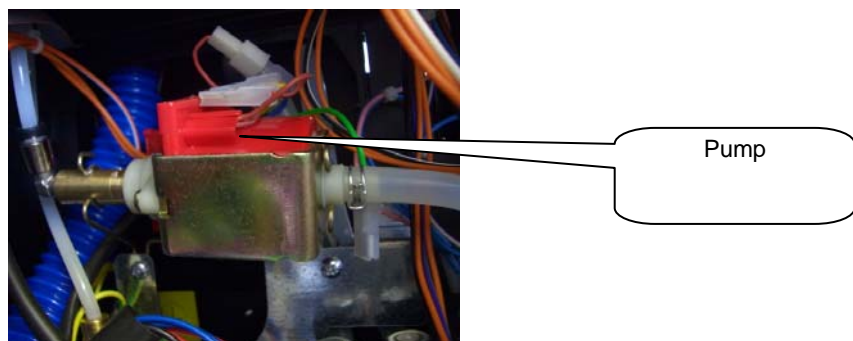
5. Overview of machine parts

Front view

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5.2

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Outer casing

- Door lock
- Panel
- Flashing light
- Drip tray
- Display
- Slot for installation Count Acceptor
- Keyboard for selection and programming

Inner casing

- Coffee beans container
- Dosing Unit
- Door contact switch
- Brewer
- Product containers
- Product chute
- Mixing bowl
- Outlet pipes
- Coffee waste container

Inner doors

- Programming button
- Coin slot
- Flat strip cable
- Cover for product selection labels
- Lock
- Lighting box cover
- Lock operating lever
- Flashing light
- Dispense area

5. Overview of machine parts

5.3

Lighting

Inner door lighting

Fluorescent lamp

Ballast

Starter

Programming button

Connection for flashing light

Starter socket
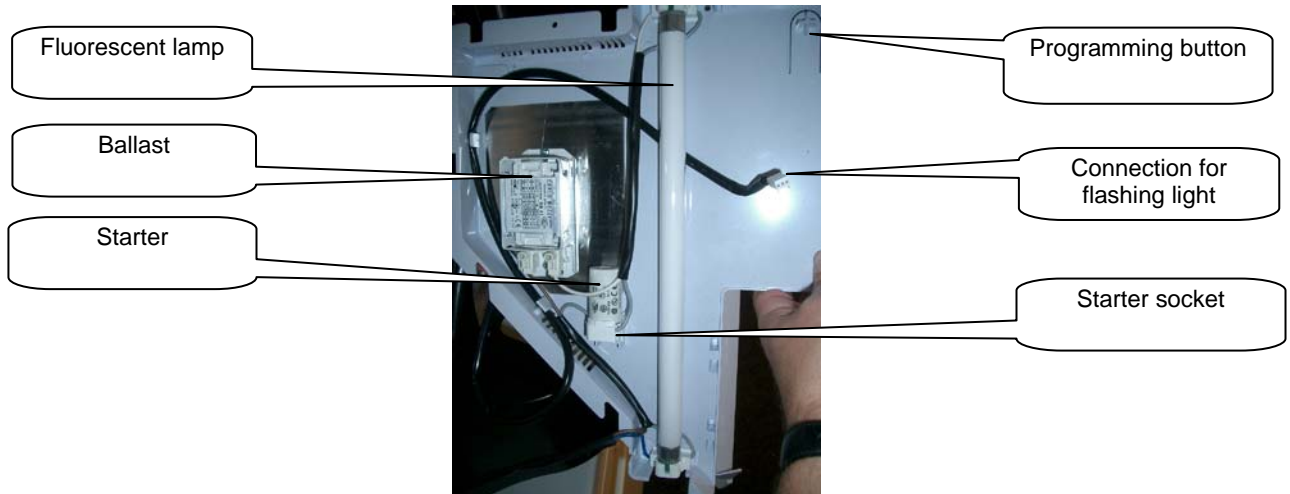
Flashing light on inner and outer doors

3 pole connection

Orange LED

Transparent glass

Blink mode during drink dispensation

Transparent glass

Pressure boiler

STB 120°C

Non-return valve

Heating connections

Valves

Valve block

Temperature sensor
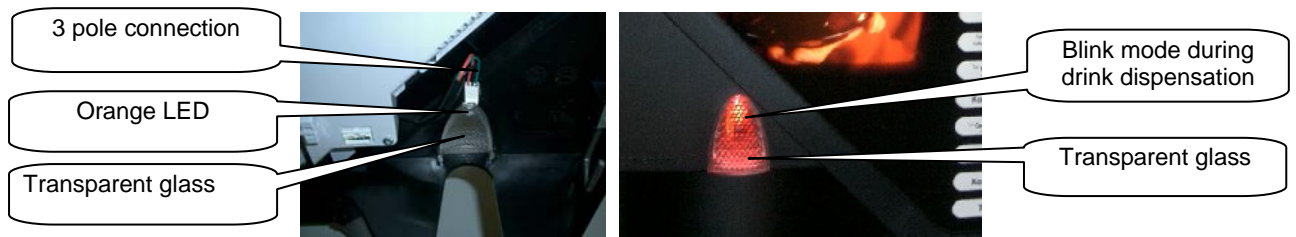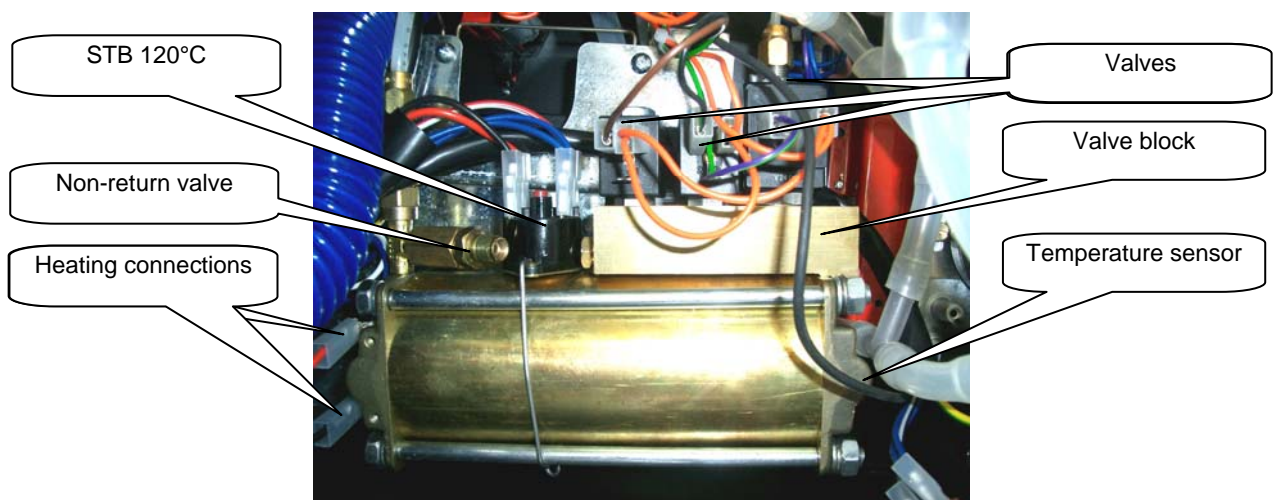
5. Overview of machine parts

Rear view

5.4

Control unit (CPU)

MDB connection

Executive connection

Flat strip cable for display

Output Transistors

Temperature sensor Connection

EEPROMS

Connection for patch cable

Fine-wire fuse 6.3 A time-lag

Fine-wire fuse 2.0 A

Voltage inputs

Display unit PCB

Program key

Flat strip cable for CPU

Free socket

8-way keypad

Potentiometer for contrast control

Indicator

Connection for flashing light

Connection for coin verifier

Inner doors

patch cable connection for Flash Card interface box.

Mounting suggestion for Flash Card interface box.

6. Unpacking and installation

6.1   Instructions for installation

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Flawless operation of the machine is guaranteed in closed rooms with a room temperature not less 5°C. The machine should not be used in rooms where there is splash water.

Caution:

As some products are sensitive to heat and humidity, it can lead to malfunctions during the machine operation if the room temperature exceeds 30°C or if the air humidity exceeds 80%.

If such conditions prevail, the parts which come in direct contact with the products must be cleaned daily.

6.2   Selection of installation site

📎

While selecting the place of installation please bear in mind that easy access must be ensured for operating, servicing and loading the machine.

6.3   Installation

- After carefully removing the packing check whether the machine is in a flawless condition. Check whether all parts of the machine are correctly installed. ✔

- The machine keys are located on the drip pan. ✔

- While selecting the place of installation ensure that a flat, vibration-free base is available and there is sufficient place for operation. ✔

- The machine must be installed with proper vertical and horizontal alignment so that the door closes flawlessly. ✔

- The machine must neither be exposed to frost and humidity, nor to the direct sun light. ✔

- A minimum distance of 10 cm must be maintained between the wall and the rear panel of the machine. ✔

- The machine comes with a mains cable having a shockproof plug. A 220V A.C. shockproof socket with16A fuse is required. ✔

7. Water and filter

Quality of water

The German Coffee Association e.V. has compiled the following basics for the optimisation of safety and quality .

Among other things, following criteria form a prerequisite for highly aromatic coffee content (naturally by using high-grade roasted coffee):

• Water fresh in taste = oxygenous
• ph – value of 6.5 – 7.5
• Total hardness between 7 – 12° hardness (dH) according to German standards
• Carbonate hardness between 3 – 4° kH

Water filter

* Aforementioned materials are food grade. By impregnating the active charcoal with silver growth of bacteria is restrained.

Our water filter systems perform twofold work:

1. The activated charcoal removes substances that cause smell and spoil taste, e.g. chorine and chloride compounds as well as their residues

2. The ion exchanger * reduces, among other things, lime deposits (Carbonate hardness) and specific heavy metals which could appear depending upon the place of installation.

Espresso systems function at specially high temperature and high water pressure. Therefore, our mobile machines with tank systems are normally fitted with tank filter.

Conclusion: More aroma, less lime deposit, reduced servicing and operating costs, minimum downtime.

Capacity of a filter cartridge BC 06

Procedure for the replacement of Aqua-Aroma filter cartridge:

1. Unscrew filter cartridge

2. Put in the new filter cartridge and tighten easily

3. Check the filter system for leaky places.

Carbonate hardness	Capacity	Number of cups / tumblers *	
Carbonate hardness in degrees	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

* Capacity data does not include any rinsing and cleaning cycles

Instructions for the installation of Aqua-Aroma filter cartridge:

Recommended maximum usage period 6 months or refer to table Capacity.
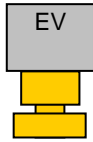
Recommended filter system:

BRITA Aqua Quell 06BC filter cartridge

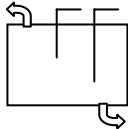BRITA connection head for 06BC filter cartridge

7. Water and filter

7.3

Water system

Inlet valve:
The inlet valve for the water tank is suitable only for depressurised area. The inlet valve is a sensitive part when the water is not being filtered. Due to dust in the non-filtered water the valve may no more open or close. It can very quickly lead to malfunctions.

Compensating tank:
Here in the cold water section the water level is refilled with the aid of sensors (probes). On dispensation of a drink the inlet valve is opened immediately and the compensating tank is refilled up to the short probe. The long probe is used only as an antipole. In case of non-filtered water the probes can get dirty and as a result it can lead to malfunctions.
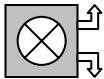
Flowmeter (water counter):
The water counter keeps track of water for all coffee based drinks. The instant water (cocoa and milk) is measured only through the time entry. The water counter registers turns via 2 magnets located in the impeller. In the controls these impulses are converted into ccm.
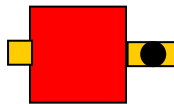
Pump with bypass:
The pump feeds between 7 and 9 bar. The pump is factory fitted with a thermal cut-out device to prevent over heating.

Pressure boiler:
In the pressure boiler there is a heating element and a sensor. There is no water level probe in the boiler. Therefore, the boiler, when it gets empty, must be filled up manually using the rinsing program of a mixing bowl. On the boiler there still a pressure relief valve which opens at 18 bar and diverts the excess pressure via overflow pipe. The boiler can be emptied via the drain plug at the bottom of the machine base.

Discharge valves:
The discharge valves consist of a measuring block and 3 valves. The valve block is fixed with 2 screws on the pressure boiler. The valves of the mixing bowl 1 and 2 are identical. The coil of the coffee valve is somewhat larger and it is equipped with a excess pressure function. If the counter pressure of the brewer is too large the pressure is diverted to the overflow pipe.

8. Start-up

Start-up with hard water supply

1. The machine keys can be found fixed on the grid on the drip pan. Loosen it and open the machine doors.

2. Now you can open the top casing cover upwards. Remove the document folder lying above the product containers. This includes an operating manual, circuit diagram legend, product nameplates and a checklist.

3. Remove the power cable from inside, first plug it into the power module at the rear end and then into the socket. Kindly ensure that the power switch is at "0". Do not switch on the machine yet.

ⓘ

Do not switch on the machine yet.

4. Connect the machine to the mains water supply using a suitable food grade pipe with a ½" BSP connection (Not supplied). It is recommended that an inline water filter is also fitted between the mains water connection and the machine.

5. Fill up coffee beans. Remove beforehand the coffee bean container and open the slide. Without coffee the machine shows malfunction "OFF 9".
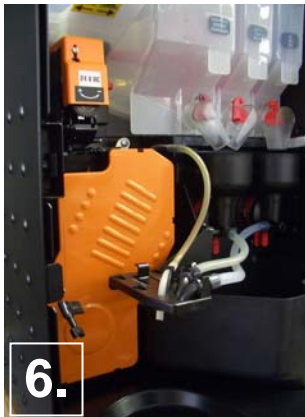
6. You can now set the power switch to ON. The machine is still out of operation as the door contact switch has not been activated. Leave it still deactivated. Follow further instructions.

If you need to install a coin acceptor kit or a water filter kit, you can do that now. Here follow the instructions in the Supplied technical documentation.

ⓘ
Do not switch on the machine yet.

8. Start-up

8.2

ⓘ

Main water supply connection with filter

In high pressure systems we recommend the installation of a water filter to prevent scaling.

At the mains water supply is an inlet pressure of minimum 1 bar necessary. If this is not the case then a pump must be installed.

Please note !

Assembly instructions water filter BC 06

Installation:

1. Unplug the appliance! Turn off the water supply.

2. Fix the wallbracket (1) with screws (2) onto the Filter head (4).
**Important:** Note direction of flow. The top of the Filter head is labelled : IN and OUT.

3. Mount the wallbracket (1) with Filter head (4) in the intended position.

4. Fix the hoses to the inlet (6) and outlet (7) connections.

5. Affix the new filter cartridge to the underside of the Filter head (4) and screw it into position.

6. Open the water supply and check for leaks.

7. Turn on the appliance.
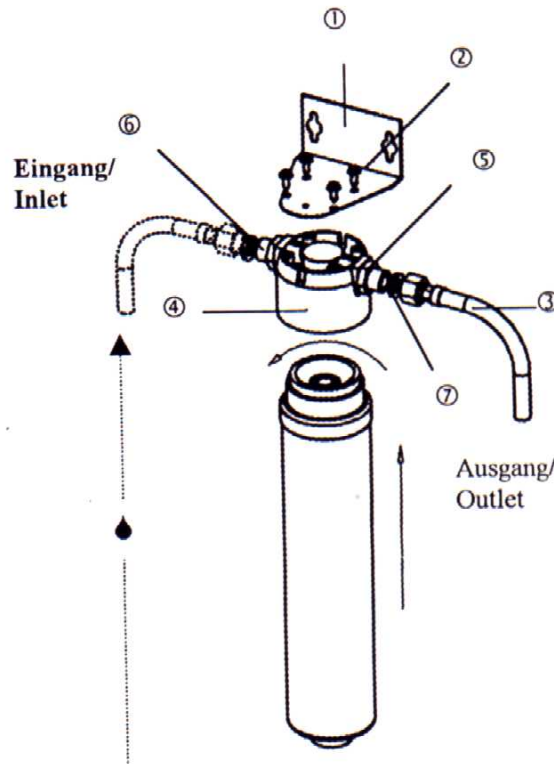
Important notes:

1. The filter system must not be installed in direct sunlight.

2. Do not use aggressive cleaning agents.

3. The filter system must be installed outside all danger zones.

4. Do not use any sharp tools or objects during the assembly or when changing the cartridge.

5. Do not install near an open flame or a source of heat.

Eingang/Inlet

Ausgang/Outlet

Technical data:

Size: height: 40,60 cm
         diameter: 6,35 cm
Max. flowrate: 3,0 Litre / min
Max. temperature: 35° C / 95° F
Capacity: 420 Litre at 10° kH
Filter head connection: 3/8" outside thread.
Max. water pressure: 8,0 bar

BRITA connection head for 06 BC   Article no. 799 051

BRITA AquaQuell filter cartridge 06 BC   Article no. 799 052

8. Start-up

Recommendation for the first thorough cleaning

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

8.3

</div>

Before filling up the products ensure that the product containers are clean. There could be packaging dust. If this is so proceed as follows:

Remove all product containers from the machine
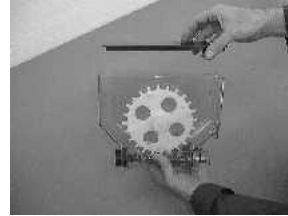
Remove the cover

Remove the product chute

Remove the clamp for the portioning spiral

Remove the product portioning spiral
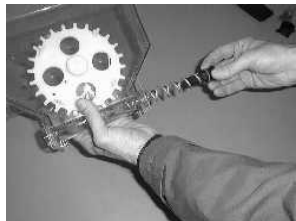
Remove the stirring wheel

Remove the mixing bowls

Remove the mixer disks

Remove the product outlet pipes

Put the parts in a rinsing solution with HACCP. Rub off the product containers and mixing bowls properly. Allow the parts to dry up properly. Reassemble the parts. ⓘ

Again fill up the water in the water tank and switch on the machine. ⓘ

8. Start-up

8.4

Filling up the product

Fill up coffee beans. Remove beforehand the coffee bean container and open the slide. Without coffee the machine shows malfunction "OFF 9".

Close the red shut-off flaps on the product chutes. Open the cover of the product container.

Fill in the product as described on the product container.

Open the red shut-off flaps.

ⓘ

Now begin the automatic rinsing of the machine so that the product, that trickled into the mixing bowls, is rinsed away. To prevent clogging follow this procedure each time the machine is filled up.

For this proceed as follows:

---

8. Start-up

Switching on the machine

Take the door contact key and turning it clockwise insert it into the door contact switch.
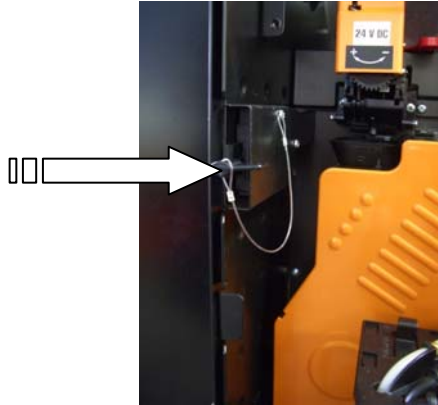
The machine starts. The display shows the software version of the machine in the first 3 seconds.

| PFXSED 2A   03-03-06 |
| XS E3 plus |

After this the display shows:
During this period the machine checks whether everything is ok.

| switching on..... |
| please wait |

After this the machine automatically goes into the installation mode and the display shows:
The compensating container is filled up with water.

| refilling water |
| wait |

After this the display shows:
The pressure boiler is filled up with water when the water is seen at the dispense area press button 1. The machine then knows that it is safe to start to heat the boiler

| Installation   - - - |
| taste   1=STOP |

After the successful installation, for approx. 3 seconds the display shows:

| Ende |
| Installation |

After this, the machine restarts and goes into the heating-up phase. To the set value is 90° C. The machine is ready for operation once this value is reached (in about 3 mins)

| wait |
| temperature |

The display then alternately shows:

| rheavendors |
| XS |

and:

| place |
| your cup |

8. Start-up

8.6

Cleaning with the rinsing program

1=PROGR
3=FREE

Press the programming button on the inner side of the door.
The display alternately shows:

2=DATI   4=CLEAN
5=MAINT

cleaning
sel   1 – 2 – 3

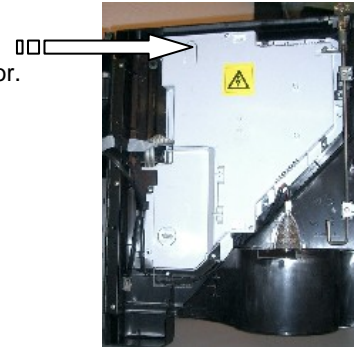Press selection button 4 on the keyboard.
The display shows:

Brewer cleaning with cleaning tablets

cleaning   1

Now for the brewer press key 1.
The display shows:

The lower brewer stamp runs on the highest point, so that it´s flush with the surface of the brewer chamber. Then approx. 20ml water get rinsed. The coffee remainders in the brewer chamber and on the lower sieve will be rinsed away and the water runs into the coffee grounds container. This procedure will be repeated again. The brewer runs now again into its end position (open position) and the brewer chamber will be filled with approx. 35ml water.

- Remove the drip pan and put a large vessel under the outlet.

- Carry out multiple rinsing cycles for each selection.

put pastille
and push P8

The display shows:

You are now requested to throw in the cleaning pill. **Daily cleaning with the cleaning pill is absolutely necessary.** Throw the cleaning pill in the brewer funnel and press button 8.

- The rinsing program must be carried out daily.

cleaning   1

The display shows:

Now the dissolving time of the cleaning pill runs. This time amounts to approx. 90 sec.. After the dissolving time the brewer runs again into its end position. That means, the upper brewer stamp immersed briefly into the water of the brewer chamber. After that, the water with the dissolved pill runs off into the coffee grounds container. This procedure is repeated, so that the brewer chamber will be rinsed out again. The cleaning-program for the brewer is now finished and the display shows:

cleaning
sel   1 – 2 – 3

This cleaning must be done daily.

Rinsing of the mixing bowl/ daily care

cleaning   2

Now for the mixing bowl 1 press key 2.
The display shows:
Now the mixing bowl is put through a rinsing cycle.
After this the menu of the rinsing program again reappears.

cleaning   3

Now for the mixing bowl 2 press key 3.
The display shows:
Now the mixing bowl is put through a rinsing cycle.
After this the menu of the rinsing program again reappears.

To again exit the rinsing program press the programming key on the inner side of the door.

9. Installation of a payment system

Installation of a NRI G13 coin acceptor KIT | 9.1 |

To install a coin acceptor kit, proceed as follows:

The kit consists of:
1 Coin acceptor unit
  NRI G13
1 Coin acceptor unit
  clamp
1 Coin slot
1 Lockable cash counter
4 Screws
1 short cash counter bolt
1 long cash counter bolt
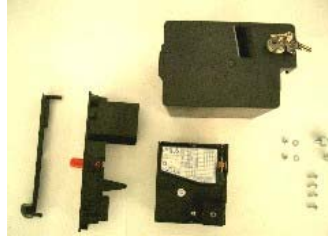
1. Remove coin slot
2. From inside push the coin slot outwards at the centre.
3. Remove the coin slot
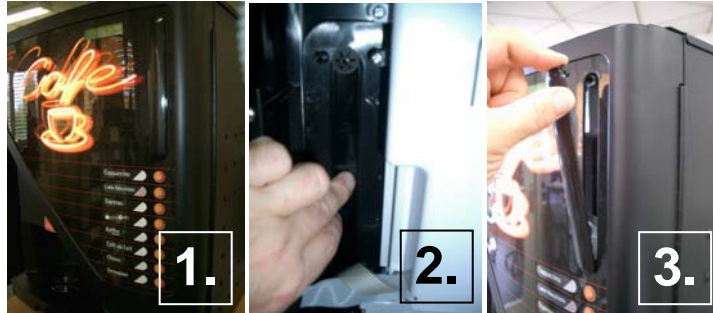
4. Remove the flat strip cable from the clamp.
5. Now you can see the fixing points.
6. Now take the clamp and position it on the fixing points.
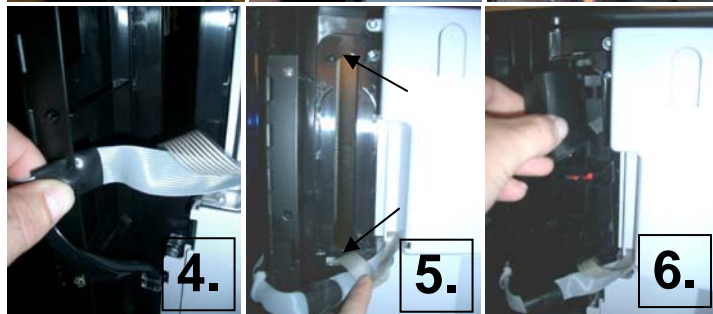
7. Now fix the clamp with two bolts at the top and at the bottom.
8. Now position the coin slot from outside and fix this with 2 screws.
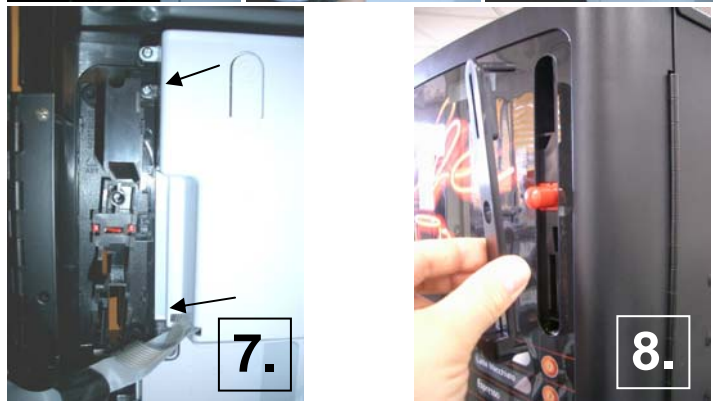
9. To insert the coin acceptor unit, now you must remove the lighting box. Loosen the 5 screws.
10. Now remove the lighting box and while doing so disconnect the cable for the flashing light on the display.
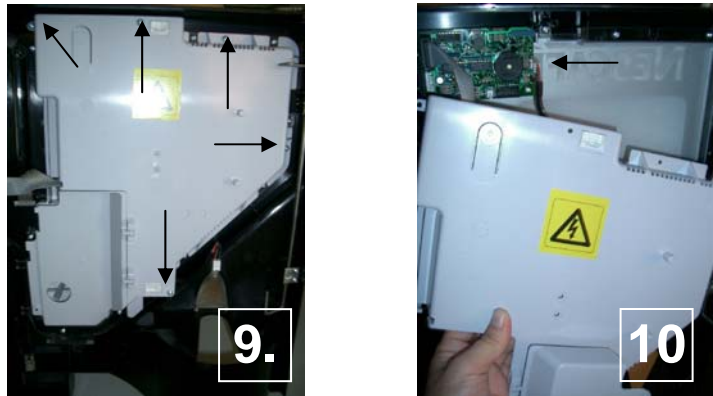
9. Installation of a payment system

9.1

Installation of a NRI G13 coin acceptor KIT

To install a coin acceptor kit, proceed as follows:

11. Remove the lighting box carefully pushing it downwards. There are still some cables on it that you do not need to pull out.

12. Now plug the flat strip cable of the coin acceptor unit into the display unit.

13. Put the lighting box back in position. Again plug in the cable for the flashing light. Pay attention to the cable routing. Now install the cup clamps. Short end up, long end down.

14. Now plug the other end of the flat strip cable into the coin collector unit.
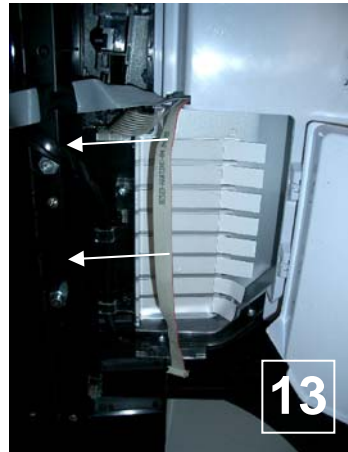
15. Push the count collector unit laterally from the right side into the clamp till the clamping lever locks in place.

16. Now suspend the cash counter from the clamps.

17. Test whether the coin return key is functioning.
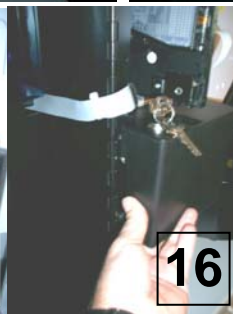
To test the coin acceptance you must first enter the prices in the program. Coin acceptance is not possible without setting the prices. For further details kindly refer to the technical documentation supplied along with the kit.

10. Machine specifications

Arrangement of product containers

<table>
<tr><td>10.1</td></tr>
</table>

P 1
- Chocolate container
- wide portioning spiral
- Portioning motor
  85 rpm

P 2
- Milk container
- narrow portioning spiral
- Portioning motor
  85 rpm

P 3
- Individual container
- wide portioning spiral
- Portioning motor
  85 rpm
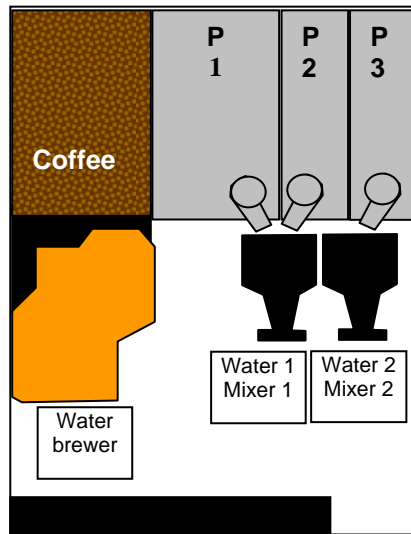
In program mode the components are named as follows:

Product 1 - Chocolate product
Product 2 - Milk product (coffee whitener/topping)
Product 3 - Individual product (tea or Soup)
Water 1 - Chocolate / milk water
Water 2 - Individual water
Mixer1 - Chocolate / milk mixer
Mixer2 - Individual mixer
Water Brewer - Coffee water

Options

<table>
<tr><td>10.2</td></tr>
</table>

The options are fixed. The labels are enclosed in the machine documents. Also see section 13.2 Portioning list.
You have the option to select between the configurations 00, 01 and 02.
Take care that the labels and the product containers are installed properly.

Configuration Std 00		Configuration Std 01		Configuration Std 02	
Cappuccino	1	Cappuccino	1	CreMoca	1
Espresso	2	Espresso	2	Cappuccino	2
Café au Lait	3	Café au Lait	3	Café au Lait	3
MoccaCino	4	MoccaCino	4	MoccaCino	4
Black Coffee	5	Black Coffee	5	Black Coffee	5
Latte Macchiato	6	Latte Macchiato	6	White Coffee	6
Chocolate	7	Chocolate	7	Chocolate	7
Individual	8	Individual	8	Individual	8

Configuration Std 00   **Configuration Std 01**   **Configuration Std 02**

11. Basic programming functions

11.1	Flash Card controls

ⓘ

No EPROM is installed in this control system. Updates are done via a "FLASH CARD". The Flash Card controls have an internal Flash memory.

Flash Card

The Flash Card is a storage medium with a 1 MB memory chip. **TIP** If you program a Flash Card, you must fix a label on it so that there is no room for confusion.

Memory chip

Label for inscription

Artikelnummer:
ELT0030068

Flash Card Interface

The Flash Card interface is an optional accessory.

RJ45 interface for connection with the CPU

SLOT
for FLASH-CARD
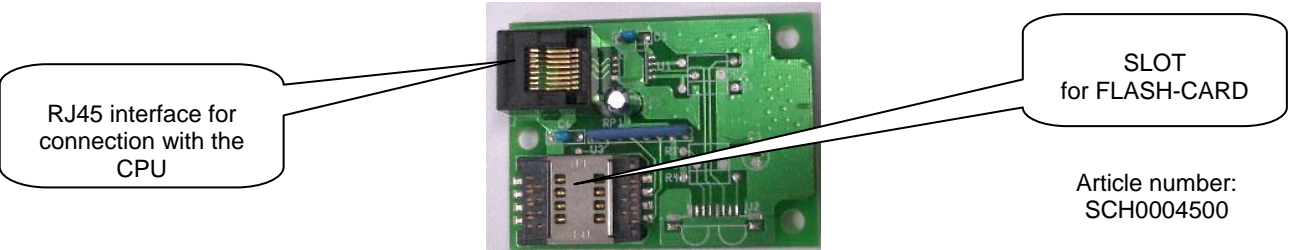
Article number:
SCH0004500

Flash Card Interface Box

With the box you have the option to keep the Flash Card interface box mobile. But you also have the option of fixing the interface on the door.
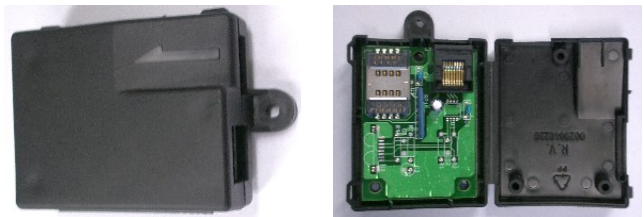
Article number:
0020040238

Flash Card Editor

With the aid of the Flash Card editor you can transfer your data from the machine to the PC and administer, or you can even download software updates from our internet site and transfer them on to the Flash Card. In addition to this, sales data can be transferred from the machine to the Flash Card and using the editor it can be converted into an Excel file.

We have put together a kit for you.
The Flash Card kit consists of:
1 x Software Editor RHEAction
1 x Flash Card Reader
2 x Flash Card 1 MB

Article number:
500000

11. Basic programming functions

What do I use the Flash Card for?

11.2

You can use the Flash Card for multiple functions:

You can program new software updates with a Flash Card on the machine.

You can save your set data on a FLASH CARD on the machine and program another machine.

You can save you set data on a FLASH CARD on the machine and save them on the PC.

With the editor you can configure your Flash Card as sales card and read the sales data from the machine. With the editor you can save this data into an Excel file and have a look at it.

How do I carry out an update?

11.3

ⓘ

A prerequisite for an update is that the master and configuration files of the relevant machine type must be available on the FLASH CARD.

For this you need a Flash Card with the associated data and a Flash Card interface box.

1. Open the door.

2. Insert the Flash Card in the SLOT meant for it the Flash Card interface box.

3. Switch on the machine from the door contact key. The file contents are displayed.

4. The display shows:
      „Programming MASTER".

6. After 15 sec. appears the following flashing message:
      „ Programming DATA EA ROM".

7. After 15 sec. appears the following message:
      "Programming OK"

8. Switch off the machine from the door contact and remove Flash Card.

9. Restore power to the system. Check the parameters, prices, temperature and fan operating time.

Rheavendors Group   B 1C
Programming master
Programming EAROM data
Programming OK
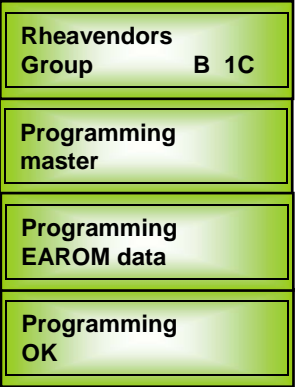
Saving the machine data

11.4

ⓘ

Prerequisite for downloading is that the configuration file for the respective machine be available on the FLASH CARD.

For this you need a Flash Card with the associated data and a Flash Card interface box.

1. While the machine is in operating state insert the Flash Card into the SLOT meant for it on the Flash Card interface box.

2. Press the programming button twice in succession. The display shows:

3. After a few seconds the display shows:

4. The download is now over. Remove Flash Card and switch the machine off and on.

Programming - - - - - - RHEA FLASH - - - - - -
Programming OK

11. Basic programming functions

11.5	General functions

Program button

On pressing the programming button on the display PCB on the inner side of the door you reach the machine program.
See picture:

On pressing the programming button following information alternately appears on the display:

```
1=PROGR
3=FREE
```

```
2=DATI      4=CLEAN
5=MAINT
```
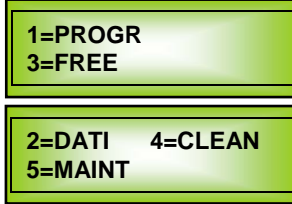
Using the selection button you can now select the desired program item. The program points are defined as follows:

1=PROGRAMMING

On pressing button –1- you reach the programming module by entering codes 8 - 7 - 6 .

2=COUNTER

On pressing button –2- you reach the sales counter. Here you can read the sales data. The counters are automatically shown in continuation.
- Total selections - Partial - Total money
- N Tests - Total selection 1 - Total selection 2
- Total selection 3 - Total selection 4 - Total selection 5
- Total selection 6 - Total selection 7 - Total selection 8

For ending the counter status query, press programming key.

3=FREE SALE

On pressing button -3- you reach the free sale You can again exit the free sale by pressing the programming key.

4=CLEANING

On pressing button -4- you reach the cleaning program. Using buttons 1 –2 – 3 you can specifically start the cleaning program for the brewer and/ or mixing unit and the pipes. You can exit the cleaning program by pressing the programming button.

5=PROGRAMMING MAINTENANCE

On pressing button 5 you reach the service counter. In this regard read section 22.1. On pressing the programming button you go back to the sales mode.

11.6	Selection buttons in the programming mode

Product 1   (1) — Scroll forward through main programming menu, return to main menu from sub menu

Product 2   (2) — Enter and scroll forward through sub menu selected with button 1 or 6

Scroll backward through sub menu — Product 3   (3)

Product 4   (4)

Product 5   (5) — Increment parameter Value

Decrement parameter value — Product 6   (6)

Product 7   (7) — Scroll backward through main programming menu

Portioning button for product verification — Product 8   (8)

11. Basic programming functions

Program overview

	11.7

On pressing the programming key and then entering the code you get into programming mode. Using the selection buttons "1" and "2" you can go to the individual menus.

Selection button 1	Selection button 2	see chapter no.
Programming button 1	For set points see section 13.2 Portioning list	12.1
.......till		
Programming button 8	For set points see section 13.2 Portioning list	12.1
Programming prices	Set sales price	14.2
Programming coins	Value of coin A to coin F (only pulse generator)	14.3
Programming temperature	Temperature boiler Temperature first coffee Free Definition first coffee	15.1 15.2 15.3
Programming miscellaneous	Machine code A Machine code B Message number Coin mech type Free Fan time Beep time Decimals number Language Grinder mode First installation Enable Snack Free Standard data Standard data load	16.1 16.1 16.2 16.3 16.4 16.5 16.6 16.7 16.8 16.9 16.10 16.11 16.12
Diagnostics	Habil. display temperature Voltage Test QTY coffee	17.1 17.2 17.3
Sales audit	Total selections Partial Total money N tests Total Vends sel. 1 to 8 Number of free sales, sel. 1 to 8	18.1 18.2 18.3 18.4 18.5 18.6
Programming MDB	Ejection tubes 4 – 5 – 7 – 8 Habil. escrow max. credit max. rest Type sell Token value Coin rest a0 to Coin rest p0 Coin no rest a0 to coin no rest p0 Tubes MDB	19.1 19.1 19.1 19.1 19.1 19.1 19.1 19.1 19.1
Programming clock	Switching on Switching off Cleaning Hour Day Month Year	20.2 20.3 20.4 20.5 20.6 20.7 20.8
Reg. out of service	No. 1 to no. 20	21.1
Programming maintenance	Counter down Counter filter H_2O Counter brewer coffee Counter coffee ground	22.2 22.3 22.4 22.5

12. Portioning

12.1	**Programming the portioning**

For altering the portioning proceed as follows:

1=PROGR
3=FREE

Press the programming button. The display shows alternately the program menu:

2=DATI 4=CLEAN
5=MAINT

insert code

Press button 1. Now you are requested to enter the program CODE.
Press buttons 8 – 7 – 6 in succession

PROGRAMMING
BUTTON 1 - - - - - - - -

After successful entry the display shows:
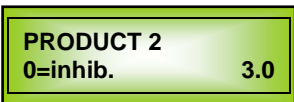
Press button -2-. Until the display shows:

PRODUCT 2
0=inhib.   3.0

The display "Product 2" corresponds to the ,
product code explained in detail on the portioning sheet. The Display "3.0" corresponds to the operating time for this product in terms of time (corresponds to approx. 3 seconds).

To change the quantity of the product proceed as follows:

Button 4 – Change of time value upwards (higher)

Button 5 – Change of time value downwards (lower)

To check your settings press
button " 8 " to draw a test portion of the selected product.

WATER   2   time
0=inhib.   5.0

On pressing button – 2 –. The display shows:
Here you can set the quantity of water for product 2.

MIXER 2
0=inhib.   8.0

On pressing button – 2 –. The display shows:
Here you can set the operating time for mixer motor 2.

Subsequently press button – 2 – and repeat this process for the other controlled products.

PROGRAMMING
BUTTON 2 - - - - - - - -

When you have programmed button 1 press button 1. The display shows:

Now repeat the process as described earlier up to button 8.

Remove the mixing bowl, so that you can place a measuring vessel underneath

Ensure sufficient after-run time (subsequent rinsing) of water.

12.2	Exit the programming mode

END PROGRAMMING
wait…………………

You are in the program and have set all options according to your wish. Now press button 1.
after this the program key to switch from the programming mode to the sales program.
The display then shows END OF PROGRAMMING.

You must finish programming by pressing the "program button" to save settings

12. Portioning

Portioning of coffee

<div style="float:right; border:1px solid; padding:4px;">**12.3**</div>

The portion of coffee is manually set though the portioning unit. You have the option to set the portion from 7 gr. to approx. 9 gr. To check the portioning kindly proceed as follows:

Regulator for portioning size

Portioning flap for the product dispensation
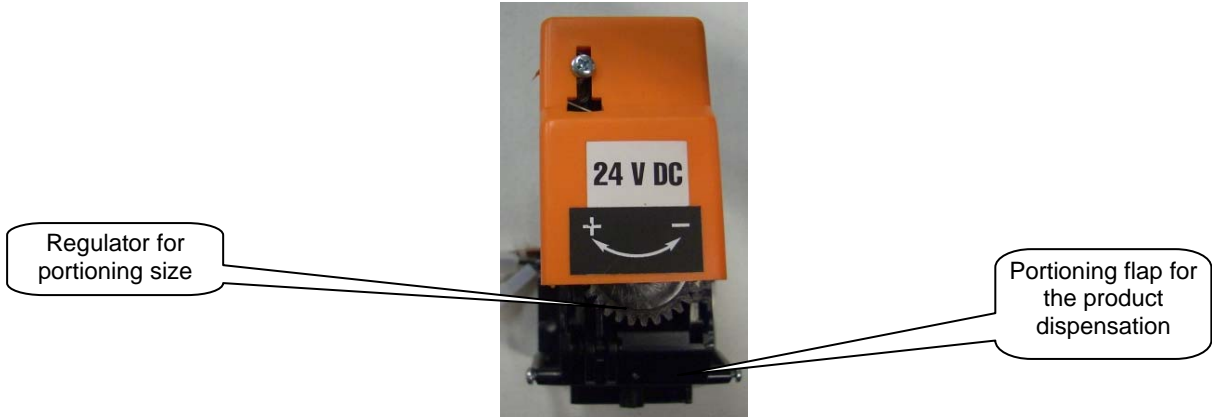
TIP
You must not dismantle the brewer completely. Leave the water supply pipe connection.

Remove the drip pan

Loosen the brewer from the clamp and put it on the machine base so that you have sufficient place to put a vessel underneath.

Press button 1 till the display shows the following: menu item:

```
DIAGNOSTICS - - - - -
- - - - - - - - - - - - - - - -
```

Now press button 2 till the following menu item appears on the display:

```
TEST QTY COFFEE
SEL 4
```

TIP
During the initial start-up the portioning unit is filled up. Therefore, before pressing key 8 place a vessel under the portioning unit.

Under this option you can draw out a sample portion of coffee by pressing button 4. The grinder starts and fills up the portioning unit. The portioning unit then automatically dispenses coffee.

Weigh out the product.

Too little? Too much? Change the portioning by shifting the regulator towards + or – and again press button 4. till you have the desired figure in grams.

You are in the program and have set all options according to your wish. Now press button 1, after this the program button to switch from the programming mode to the sales program. The display then shows:

```
END PROGRAMMING
wait…………………
```

12. Portioning

| **12.4** | ## Setting for the degree of grinding of coffee |

You can vary the gap between the grinding disks by turning the adjusting rings, it determines
the degree of grinding of coffee.

Product dispensation for portioning unit

Setting ring for grinding disk

Clockwise rotation:
(in clockwise direction)

Distance becomes
smaller = fine grinding

ⓘ

TIP
To start with always make the setting for a coarse grinding. Very fine grinding could block the brewer.

For new setting please proceed as follows:
Close the slide of the coffee container. Remove the coffee container, Remove the rest of the beans in the grinder using the portioning mode or a suction unit, so that no more beans are left in the grinder. The setting of the degree of grinding is done in grid pitches. To find an orientation point during the initial start-up, please turn the grinder in the clockwise direction up to the limit stop Now again turn the grinder approx. 30 grid pitches in the anticlockwise direction. Now you have set a coarse grinding. Draw out a black coffee from the installed brewer. The optimum degree of grinding can be worked out on the basis of brewing time. Here measure the brewing period. The optimum brewing period for a black coffee with 150ml is approx. 28 – 33 seconds. The brewing period is calculated from the pump start to the end. If the brewing period is longer the grinding is too fine. If the brewing period is shorter the grinding is too coarse. With that you can change the setting ring of the grinder in respective direction. Make changes only in fine steps. Only after 3 test portioning steps does the actual degree of grinding become active.

Be in mind that the portioning must be checked again when the degree of grinding is changed. Therefore, after setting the degree of grinding check the portioning once again.

Anticlockwise rotation:
(in anticlockwise direction)

Gap gets larger   =
coarser grinding

ⓘ

TIP
Only after approx. 3 test portioning steps does the actual degree of grinding in the brewer become active.

| **12.5** | ## Which coffee beans? |

With the configuration of the machine you have the option to make the setting for the "espresso" beans or for the "light" beans.

TIP
Espresso beans = dark beans. In this case the following setting applies:
Brewing period for black coffee approx. 30 seconds
Brewing period *espresso* approx. 10 – 15 seconds
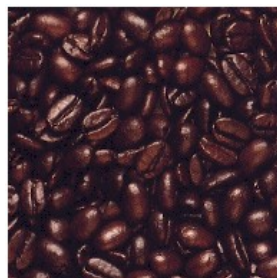
TIP
Light beans = German quality of coffee beans . In this case the following setting applies:
Brewing period for black coffee approx. 20 seconds

Make a middle setting between *espresso* and black coffee so that both drinks are of good quality.

13. Portioning list

Explanation on portioning list

<div style="float:right; border:1px solid #000; padding:8px;">

13.1

</div>

For each key you have the option to change the portioning of the time of the product motor, mixer motor and valve required and controlled for the purpose.

(i)

You can use button 4 and 5 to change this value

Button functioning:
Here you can activate or deactivate the selected button. Normally the button is always **functioning.**

FUNCTIONING

Button inhibited:
You have the option to deactivate the individual butons. With this option no drink is dispensed in the sales mode.

Programming partial:
Programming partial means: Only those parameters that have a function are visible.

**Programming:
PARTIAL**

Programming total:
Programming total means: All functions, even those that do not have a function, are visible.

**Programming:
TOTAL**

(i)

You can use button 4 and 5 to change this value

What can you do with programming partial or total?:
With programming partial option, if you set a parameter to "0" and then exit programming, this parameter is not visible when the "programming partial" option is selected the next time.
You can again access the parameter by selecting the programming total option for this key. Now again enter a value for this parameter. Again set the programming partial option to see whether this value is visible.

Mixer speed:
You have the option to influence the speed of the mixer motors. Standard setting of the mixer motor speed can be found in the portioning list. Setting options from 00 to 05.

**MIXER speed   1
     00**

Mixer speed … 00:
The mixer limiting is deactivated, which means that the motor is running on full power.

Explanation regarding the setting of the mixer speed:
The voltage supply is reduced, which means that the motor runs slower. Thus the speed is reduced. The given speeds are based on measurements without load.

Setting	00	01	02	03	04	05
Voltage Volt DC	24 V	21 V	18 V	15 V	12 V	9 V
Speed rpm	16000	13500	11000	8000	5800	3200

(i)

These are approximate values.

These are approximate values.

13. Portioning list

13.2

Portioning List cino xs Presso-Bean E3

Standard Data 00   150ml using Topping

Selection number	1	2	3	4	5	6	7	8
Selection Name	Cappuccino	Espresso / CreMoca	Café au Lait	MoccaCino	Black Coffee	Latte Macchiato	Chocolate / Chocomilk	Individual
Functioning / Inhibited	Functioning	Functioning	Functioning	Functioning	Functioning	Functioning	Functioning	Functioning
Partial / Total	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Coffe Water cc:	40	30	60	40	110	30		
Coffee Before / After	After	Before	Before	Beforee	Before	After	--	--
free								
Time Product 1	0.0			1.7			4.4	
Start Delay Product 1	2.0			2.0			1.0	
free								
Time Product 2	3.0	0.0	2.5	3.0		5.0	0.0	
Start Delay Product 2	1.0	0.5	0.5	1.0		0.5	3.0	
free								
Time Product 3								3.0
Start Delay Product 3								1.0
free								
Time Product 4 *						00 *		
Start Delay Product 4 *						00 *		
free								
Time Water 1	5.5	00	3.5	5.5		6.5	8.0	
Start Delay Water 1	0.0	00	0.0	0.0		0.0	0.0	
free								
Time Mixer 1	7.0	00	5.0	7.0		5.0	10.0	
Start Delay Mixer 1	0.5	0.5	0.5	0.5		4.0	0.5	
Speed Mixer 1	00	00	00	00		00	00	
Time Water 2								8.0
Start Delay Water 2								00
free								
Time Mixer 2								10.0
Start Delay Mixer 2								0.5
Speed Mixer 2								
Freevend Quantity	00	00	00	00	00	00	00	00
Selection name number	1	2	4	5	6	7	8	10

* IMPORTANT NOTE:
Running time/starting time for product 4 is are virtual parameters. Here you can apply a time, in order to create a pause in the preparation of the drink Latte Macchiato, so that the milk foam can strengthen before the espresso is dispensed. Maximum response time of the two parameters is per 25 seconds, i.e. you know a maximum break of approx.. 50 seconds. With this feature a very nice Latte Macchiato can be produced.

13. Portioning List

Portioning List cino xs Presso-Bean E3

<div align="right">

13.2

</div>

Standard Data 01   180ml using Topping

Selection number	1	2	3	4	5	6	7	8
Selection Name	Cappuccino	Espresso / CreMoca	Café au Lait	MoccaCino	Black Coffee	Latte Macchiato	Chocolate / Chocomilk	Individual
Functioning / Inhibited	Functioning	Functioning	Functioning	Functioning	Functioning	Functioning	Functioning	Functioning
Partial / Total	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Coffe Water cc:	4.5	3.0	6.5	4.5	12.0	3.5		
Coffee Before / After	After	Before	Before	Before	Before	After	--	--
free								
Time Product 1	0.0			2.0			4.8	
Start Delay Product 1	2.0			2.0			1.0	
free								
Time Product 2	3.5	0.0	3.0	3.5		5.6	0.0	
Start Delay Product 2	1.0	0.5	0.5	1.0		0.5	3.0	
free								
Time Product 3								3,0
Start Delay Product 3								1,0
free								
Time Product 4 *						00 *		
Start Delay Product 4 *						00 *		
free								
Time Water 1	6.0	00	4.0	6.0		7.0	9.0	
Start Delay Water 1	0.0	00	0.0	0.0		0.0	0.0	
free								
Time Mixer 1	7.5	00	5.5	7.5		6.0	11.0	
Start Delay Mixer 1	0.5	0,5	0.5	0.5		4.0	0.5	
Speed Mixer 1	00	00	00	00		00	00	
Time Water 2								9,0
Start Delay Water 2								0,0
free								
Time Mixer 2								11,0
Start Delay Mixer 2								0,5
Speed Mixer 2								00
Freevend Quantity	00	00	00	00	00	00	00	00
Selection name number	1	2	4	5	6	7	8	10

* IMPORTANT NOTE:
Running time/starting time for product 4 is are virtual parameters. Here you can apply a time, in order to create a pause in the preparation of the drink Latte Macchiato, so that the milk foam can strengthen before the espresso is dispensed. Maximum response time of the two parameters is per 25 seconds, i.e. you know a maximum break of approx.. 50 seconds. With this feature a very nice Latte Macchiato can be produced.

13. Portioning list

13.2	Portioning List cino xs Presso-Bean E3

Standard Data 02   150ml using whitener

Selection number	1	2	3	4	5	6	7	8
Selection Name	Cremoca	Cappaccino	Café au Lait	MoccaCino	Black Coffee	White Coffee	Chocolate / Chocomilk	Individual
Functioning / Inhibited	Functioning	Functioning	Functioning	Functioning	Functioning	Functioning	Functioning	Functioning
Partial / Total	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Coffe Water cc:	3.0	4.0	6.0	4.0	11.0	6.0		
Coffee Before / After	Before	After	Before	Before	Before	Before	--	--
free								
Time Product 1		00		1.7			4.4	
Start Delay Product 1		2.0		2.0			1.0	
free								
Time Product 2	1.8	2.4	1.5	2.4		1.8	00	
Start Delay Product 2	0.5	1.0	0.5	1.0		0.5	3.0	
free								
Time Product 3								3,0
Start Delay Product 3								1,0
free								
Time Product 4 *								
Start Delay Product 4 *								
free								
Time Water 1	3.0	5.5	3.5	5.5		3.5	8.0	
Start Delay Water 1	0.5	0.0	0.0	0.0		0.0	0.0	
free								
Time Mixer 1	4.5	7.0	5.0	7.0		5.0	10.0	
Start Delay Mixer 1	0.5	0.5	0.5	0.5		0.5	0.5	
Speed Mixer 1	00	00	00	00	00	00	00	
Time Water 2								8,0
Start Delay Water 2								0,0
free								
Time Mixer 2								10,0
Start Delay Mixer 2								0,5
Speed Mixer 2								00
Freevend Quantity	00	00	00	00	00	00	00	00
Selection name number	3	1	4	5	6	12	8	10

IMPORTANT NOTE: In this dosing list all menu options are specified, which are changeable.

In the PARTIAL programming mode the only visible parameters are those that have a running time greater than zero. These parameters are recommended for the selection.

In the TOTAL programming mode all parameters are visible. For each selection there are over 40 parameters. That means with 8 selection buttons is over 240 parameters for an equipment programming to be considered would have. In order to make for you programming clearer, we integrated the point of program programming PARTIAL.

The standard data 00/01/02 have the default values, which are suitable for most customers.

14. Set sales price

Price allocation

The machine allows 8 price allocations which are assigned permanently to 8 selection keys. You can sell at 8 different prices.

Price 1 - Button 1
Price 2 - Button 2
Price 3 - Button 3
Price 4 - Button 4
Price 5 - Button 5
Price 6 - Button 6
Price 7 - Button 7
Price 8 - Button 8

Set sales price

```
PROGRAMMING
PRICES - - - - - - - - - - -
```

In programming using button 1 select the list "Programming prices". The display shows:

```
PRICE 1
            0.00
```

Now, press button -2-. The display shows:

With button – 4 – and – 5 – you can set your desired sales price.

```
PRICE 2
            0.00
```

Press button 2 after you have set price 1.
The display shows:
Repeat the procedure as described earlier up to Price 8.

The sales price must be adjusted according to the smallest coin value used in the coin acceptor unit.

Price setting "0" implies free vend. If a coin acceptor unit is connected no coin collection takes place

Fix the value of the coins

```
PROGRAMMING
COINS - - - - - - - - - - -
```

In programming using button 1 select the
list "Programming coins". The display shows:

```
COIN A
            0.05
```

Now, press button -2-. The display shows:

The basic setting for the coin set is programmed as follows:

Coin A = £0.05
Coin B = £0.10
Coin C = £0.20
Coin D = £0.50
Coin E = £1.00
Coin F = £1.00 (desired value of the token)
On pressing button 4 and 5 you can increase or decrease the value of the coin.

This function is supported only in connection with the pulse generator.

15. Setting the temperature

15.1

Boiler temperature

In programming using button -1 select the list "Programming temperature". The display shows:

| **PROGRAMMING** |
| **TEMPERATURE- - - - -** |

Now, press button -2-. The display shows:

Using selection button 4 and 5 you can set the heating temperature of the boiler. The set-point should not be well over the basic value of 90 ^{0}C.

| **TEMPERATURE** | |
| **boiler** | **90** |

15.2

Temperature increase °C

Press button -2-. The display shows:

TIP
The temperature increase activated when for a long time no coffee is drawn out. This could calcify the brewer parts and take away the heat. Due to this the drink would appear not to be quite hot.

With this parameter you can set the temperature level for the heating cycle set in the temperature increase. Optimum set-point: **98°C**. Standard setting: 0°C

| **TEMPERATURE** | |
| **first coffee** | **0** |

15.3

Time for temperature increase

Press button –2-. The display shows:

With this parameter you can set a heating cycle of 0 – 90 minutes for the temporary temperature for every first coffee. Optimum set-point: **20 minutes** Standard value: 0 minutes **0 – 90 minutes**

| **DEFINITION** | |
| **first coffee** | **0** |

Solution for temperature problems

ⓘ

If product is dispensed in "thick-walled" porcelain or earthenware cups, it is possible that the drink appears to be somewhat "cold". If the cups are not pre-heated, they draw out heat from the drink and lower its temperature. In this regard we recommend a cup warmer to heat the cups.

Article number:
119 054

Cup warmer

16. Miscellaneous settings

Machine ID number

16.1

```
PROGRAMMING
MISCELLANEOUS - -
```

In programming select key -1- select the
list "Miscellaneous programming". The display
shows:

```
machine code
A              00
```

Press key -2-. The display shows:
Here you can enter the machine number.

```
machine code
B              00
```

If a slave machine is connected to the XS, you can give an
additional machine number.

Information

16.2

```
message number
                 0
```

You have the option to select from multiple messages in the
display.
Now, press button -2-. The display shows:

```
rheavendors
XS
```

With button – 4 – and – 5 – you can set your desired display
information.

```
Allow yourself
a break
```

0 = rheavendors XS **-** place your cup
1 = take a relax moment - place your cup
2 = enjoy a break time - place your cup

```
place
your cup
```

3 = Freely programmable
4 = enjoy a break time - place your cup
5 = rheavendors at your service - place your cup
6 = insert coins - place your cup
7 = message 7 - place your cup

ⓘ

**Setting "3" can be
freely programmed with
the Flash Card editor.**

Payment system

16.3

```
coin-mech type
PAR. SING. VEND.
```

Press button –2-. The display shows:

With button – 4 – and – 5 – you can set your desired payment
system.
Payment system
Par. Sing. Vend.
Pulse generator (e.g. G13) for single sale
Par. Mult. Vend.
Pulse generator (e.g. G13) for multiple sales
Executive
Coin changer, cashless (e.g. cash card)
Exec. Price Hold
for price setting via the payment system.
(coin changer)

ⓘ

MDB
Coin changer, cashless (e.g. cash card)

```
SERVICE
OFF 2
```

Take care that your payment system is set correctly. In case of
incorrect setting the display shows:

16. Miscellaneous settings

16.4

Fan after-run time

Press button –2-. The display shows:
Here you can set the after-run time of the fan,
how long should the fan run after the product has been
selected.

Standard setting here is **5 Min.**

16.5

Time signal

Press button -2-. The display shows:

Determine the length of the signal tone from the electronic
controls of the CPU on selection of products and/ or
confirmation of coin acceptance.

```
beep time
                    3
```

16.6

Decimal position

Press button –2-. The display shows:

Setting of the decimal point according to English and/or
European coin value (x . xx). **Setting = 2**

```
decimals number
                    2
```

16.7

Language

Press button –2-. The display shows:
Setting the language for the menu. By pressing buttons 4
and/or 5 you can select between 3 different languages.

```
SPRACHE:
            DEUTSCH
```

```
LANGUAGE:
            ENGLISH
```

```
LINGUA:
            ITALIANA
```

16.8

Grinder type

0 = **Grinding after drink dispensation**
1 = Grinding before drink dispensation (for next portion)

Default setting here is **0.**

```
grinder mode
0= after 1=before    0
```

16.9

First installation

This function is automatically activated at the time of initial
start-up (pressure boiler and compensating container are filled
up with water, temperature is set at 90 degrees, error
messages in the error memory are deleted). With buttons 4 and
5 you can again activate or deactivate this function. This must
be done if the boiler is to be drained. (before draining)

```
first install.
0 = first            1
```

0 = Initial installation activated
1 = Initial installation deactivated

16. Miscellaneous settings

Enable Snack

16.10

```
Habil. snack
0=no  1=yes      0
```

There is the possibility to connect our mini Snack or Micro Snack under counter machine as a Slave. If you activate this programming option then additional parameters for price settings, temperature settings and error messages appear in programming. If the slave machine is not connected then this value must be set at '0'

Standard data

16.11

```
Standard data
0-1-2           00
```

Press button –2-. The display shows:
Here you can specify which standard values you wish to access.
00 = Configuration 00
01 = Configuration 01
02 = Configuration 02
Set the value with button 4 and 5.

You must carry out the next step to write the new standard data settings to memory.

ⓘ
While updating with a Flash Card automatically the values from standard data 00 are loaded.

Load standard data

16.12

```
Standard data
4=load
```

You can now load your predefined standard data. Keep button 4 pressed till "SAVING OVER" appears on the display. Now the new standard values are written into the memory.

17. Diagnostics menu

Display temperature

17.1

ⓘ

These options are important and useful tools for the service engineer.

Now, press button -2-. The display shows:

```
HABIL. DISPLAY
TEMPERA.  1=YES   0
```

1 = permanent temperature display on the display
0 = <u>no</u> temperature display on the display
After the test again deactivate this display so that the other display information can be shown.

Voltage

17.2

```
VOLTAGE
volt:           24,8
```

Now, press button -2-. The display shows:
Here you can read the output voltage from the transformer.

Test Coffee portion

17.3

ⓘ
also see section 12.3

```
TEST QTY COFFEE
SEL 4
```

Now, press button -2-. The display shows:
Under this option you can draw out a sample portion of coffee by pressing button 4. The grinder starts and fills up the portioning unit.
The portioning unit then automatically dispenses coffee.

18. Sales data

18.1

Total counter

Press button 2. The display shows:

This counter registers all sales in the sale and free sales mode. **This counter status cannot be reset.**

```
TOTAL SELECTIONS
                0
```

18.2

Partial counter

Press button 2. The display shows:

This intermediate counter registers all sales in terms of numbers of pieces in sales mode. This counter status can be reset by pressing button 4 for a long time.

```
PARTIAL
                0
```

18.3

Money counter

Press button 2. The display shows:

This counter registers all sales in terms of coin value in sales mode. This counter status can be reset by pressing button 4 for a long time.

```
TOTAL MONEY
             0.00
```

18.4

Test counter

Press button 2. The display shows:

This counter registers all sales in terms of coin value Free sale mode. This counter status can be reset by pressing button 4 for a long time.

```
N TESTS
                0
```

18.5

Counter for selection 1 to 8

Press button 2. The display shows:

This counter registers all vends in terms of number of sold drinks per selection. This counter status can be reset by pressing button 4 for a long time.

```
TOTAL   SEL.    1
                0
```

Proceed as described earlier for all other selections (up to selection 8) to read or reset counter statuses.

18.6

Freevend counter, selections 1 to 8

Press button 2. The display shows:

This counter registers all vends in terms of number of Freevend (whilst executive key switch is enabled) drinks per selection. This counter status can be reset by pressing button 4 for a long time.

```
FREEVEND  SEL.  1
                0
```

Proceed as described earlier for all other selections (up to selection 8) to read or reset counter statuses.

18.7

Reading the sales data with a Flash card

The sales data can be read even with a Flash Card. For this, you need a Flash Card Editor. With the Flash Card Editor the sales data is converted into an Excel file. In this regard, read the documentation for the Flash Card Editor.

19. MDB settings

MDB Parameter

<div style="float:right">19.1</div>

PROGRAMMING MDB

Change the MDB settings according to the following table.

Use button 2 to move in the CODE area and with buttons 4 and 5 change the values.

CODE	Explanation	Set standard value
Coin key 4 – 5 – 7 – 8	Channel payment by pressing the button 4 – 5 – 7 – 8 (4 = 0,50 €, 5 = 0,20 €, 7 = 0,10 €, 8 = 0,05 €)	
EE	0 = Ready for change 1 = Purchase obligation	1
C MAX CREDIT	Maximum credit in Cent 0 = infinite 500 = Value in Cent = 5 €	0
R MAX remaining cash	Maximum remaining cash in Cent 0 = infinite 500 = Value in Cent = 5 €	0
SS	0 = Single sale (Singlesale) 1 = Multiple sale (Multisale)	0
Token	Value or free sale impulse of the token Free sale impulse is = 0. Message on the display: Free sale Value of the token which is programmed in the coin acceptor unit e.g. 100 = 1 € Message on the display: 1.00	0

CIN — Blocking the individual coin channels

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

0 = Active   1 = Blocked

Set standard value: All coins are activated

0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0

CH — Receipt group with display "put in counted cash"

BLOCK EURO (€)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
5	10	20	50	100	200	-	-	-	-	-	-	-	-	-	-
0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0

0 = Active   1 = Blocked

Set standard value: **Kindly note that:** While using a token, activate the corresponding channel. (TK)

MDB channel capacity	Total contents in the channels	Value in EURO

ⓘ

These settings are required only for coin changer.

20. Clock

20.1

Clock functions

ⓘ

Press button 1. The display shows:
The machine has an internal clock. You have the option to set various switching functions. The clock becomes active only after you have entered the time.

> PROGRAMMING - - - -
> CLOCK

20.2

Switching On

Press button 2. The display shows:
Here you can enter the switch-on time for the machine. (e.g. 06.00). On setting this parameter to 00.00 this setting is again deactivated.

> SWITCHING ON:
>   00:00

20.3

Switching Off

On setting this parameter to 00.00 this setting is again deactivated.

Press button 2. The display shows:
Here you can enter the switch-off time for the machine. (e.g. 18.00). Drinks can be sold only between the switch ON and switch OFF time. When the switch-off time is reached the machine shows in the display: Shall again be ready for sale from 06.00 onwards.

> SWITCHING OFF:
>   00:00

20.4

Cleaning

Press button 2. The display shows:

Here you can set the switch-on time for automatic cleaning (e.g. 07.00).

> CLEANING:
>   00:00

When the clock reaches 7.00 the automatic cleaning starts with the following display:

> CLEANING
> PROGRAM

The display changes and it shows:
Now a cleaning cycle with approx. 60 ml water is being used for the brewer.

> CLEANING 1

ⓘ
Automatic cleaning takes place only when minimum 5 portions are sold within 24 hours.

The display changes and it shows:
Now a cleaning cycle with approx. 60 ml water is being used for the hot water pipe.

> CLEANING 2

The display changes and it shows:
Now a cleaning cycle with approx. 60 ml water is being used for the mixing bowl.

> CLEANING 3

After the automatic cleaning is over the machine goes back into the sales mode.

The automatic cleaning can be again deactivated by setting the parameter to 00.00.

20. Clock

Hour

| 20.5 |

```
HOUR:
            00:00
```

Press button 2. The display shows:
Here you can set the current time.

Day

| 20.6 |

```
DAY:
            01
```

Press button 2. The display shows:
Here you can enter the current date.

Month

| 20.7 |

```
MONTH:
            01
```

Press button 2. The display shows:
Here you can enter the month.

Year

| 20.8 |

```
YEAR:
            06
```

Press button 2. The display shows:
Here you can enter the current year.

21. Error memory

21.1

Error messages

The machine stores the last 20 error messages. The Individual error messages can be deleted by pressing button -4-.

(i)

Now, press button -2-. The display shows:

REGISTRATION
OUT OF SERVICE

Explanation of error messages:

The last fault is always shown as n. 1.

n. 1	= Error message no. 1
OFF 31B	= error code (see section 23.1)
07:12	= Time of the error message
16-11-2001	= Date of the error message

n. 1	**OFF 31B**
07:12	**16-11-2001**

Press button –2- once again. The display shows the next error message: n. 2 = Error message no. 2.

n. 2	**OFF 6**
12:12	**10-11-2001**

On pressing button – 2 – you can retrieve all error messages up to number 20.
If the memory is full with 20 error messages and a fresh error message appears, the error messages
are shifted back by one number (n. xx)
and the error message (n. 20) is deleted from the memory.

If all locations in the fault memory are not full as yet, the display shows:

n. 10	**OFF ===**
==:==	**==-==-20==**

If you want reliable values in the error messages, please ensure that the time, day, month and year are set properly.

(i)

22. Service counters

Service messages

The machine has service counters that help in a flawless servicing and inspection of the machine. The counters are activated as follows:

ⓘ

Product Counter

```
PROGRAMMING
MAINTENANCE
```

Now, press button -1-. The display shows::

```
counter down
[    00]          0
```

Press now the key - 2 -. in the display appear:

This counter serves for control, when the products are sold out.

```
counter down
[    00]        250
```

With the keys 4 and 5 gives you the number of vends to start the timer at (max. value 10000). Here as example:

```
counter down
[   250]        250
```

Confirm the input with the key 8. In the display appears:

The counter is now activated.

```
counter down
[    01]        250
```

The counter registers now all vends. It counts back to the value "1". When the counter reaches "1" it stops and no more vends can be made. **It does not count up to the value "0" back.**

```
SERVICE
OFF 99
```

The counter is at the value "1" all product selection are inhibited and the display shows:

```
counter down
[   250]        250
```

After you filled up the products, reset the counter with the key 8 as described again to the value stopped before. The announcement "SERVICE OFF 99" expires then

22. Service counters

22.3

Water Filter Counter

Now, press button -2-. The display shows:

This counter is used to find out when should the water filter be replaced.

```
cnt.     filter     H2O
[    00]              0
```

Using buttons 4 and 5 you can enter the number (depending upon the filter used) of portions. (max. value 10000). For example:

```
WATER FILT.COUNT
[    00]           4800
```

Confirm the entry with button 8.
The display shows:

The counter is now active.

```
cnt.     filter     H2O
[  4800]           4800
```

The counter now registers all sales. It counts back up to value "2". As soon as the counter reaches 2 its value remains unchanged and it is still possible to sell. **It does not count back to value "0".**

```
cnt.     filter     H2O
[    02]           4800
```

If the value of the counter reaches below "50", in addition to the set information the display shows the following:

```
REPLACE
WATER FILTER
```

While replacing the water filter, as explained, again reset the counter with button 8 to the value set earlier. The display "Water filt. count" then vanishes.

```
cnt.     filter     H2O
[  4800]           4800
```

22.4

Brewer Counter

Now, press button -2-. The display shows:

This counter is used to find out when the brewer should be cleaned.

```
cnt.     brewer     cof.
[    00]              0
```

Using buttons 4 and 5 you can enter the number (Standard value approx. 500) of portions. (max. value 9999). For example:

```
cnt.     brewer     cof.
[    00]            500
```

Confirm the entry with button 8.
The display shows:

The counter is now active.

```
cnt.     brewer     cof.
[   500]            500
```

22. Service counters

Brewer Counter

22.4

cnt.   brewer   cof.
[02]   500

The counter now registers all sales. It counts back up to value "2". As soon as the counter reaches 2 its value remains unchanged and it is still possible to sell. **It does not count back to value "0".**

CLEAN
BREWER

If the value of the counter reaches below "50", in addition to the set information the display shows
the following:

cnt.   brewer   cof.
[500]   500

Now start the cleaning program of the brewer
and reset the counter with button 8 as described above. The display "Brewer count." then vanishes.

Coffee Waste Counter

22.5

cnt.   cof.   ground
[00]   0

Now, press button -2-. The display shows:

This counter is used to find out when should the
the coffee set container be emptied.

cnt.   cof.   ground
[00]   100

Using buttons 4 and 5 you can enter the number
(Standard value approx. 100) of portions. (max. value 9999).
For example:

cnt.   cof.   ground
[100]   100

Confirm the entry with button 8.
The display shows:

The counter is now active.

cnt.   cof.   ground
[02]   100

The counter now registers all sales. It counts back up to value "2". As soon as the counter reaches 2 its value remains unchanged and it is still possible to sell. **It does not count back to value "0".**

EMPTY
COFFEE SET

If the value of the counter reaches below "50", in addition to the set information the display shows
the following:

cnt.   cof.   ground
[100]   100

Empty the coffee set container and reset the counter with button 8 as described above.
The display "Coffee set count." then vanishes.

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23. Trouble Shooting (error messages)

23.1

Error messages

With the aid of electronic controls the machine controls a large number of functions and in case of specific faults adjusts the sale automatically. The display then shows the message: OFF (Code) To delete the fault display the machine must be switched off and switched on.

Display-CODE	Cause	Fault elimination	TIP
SERVICE OFF 2	Payment system malfunction	Incorrect payment system	
		Defective adapter cable	
		Power breakdown in data cable from coin unit to CPU	
		Coin unit defective	
SERVICE OFF 2B	No payment system power supply	Examine fuses	Possibly caused by defective mixer motor
SERVICE OFF 5A	The right EAROM memory on the CPU is defective.	Replace memory.	
SERVICE OFF 5B	The left EAROM memory on the CPU is defective.	Replace memory.	
KEIN WASSER OFF 6A	no water	Water tank empty	Pull out overflow pipe at the inlet valve, allow collected water to drain out from the pipe
		Inadequate water supply (inlet valve is defective)	
NO WATER OFF 6B	Water loss in the boiler, although no sales took place.	Check boiler for leakage	
		Check pipe joints	
SERVICE OFF 7	Brewer blocked	Start cleaning program for the the brewer	
		Remove and clean the brewer	
	The brewing period was exceeded	Grinding set to too fine	
		Flowmeter is defective	
SERVICE OFF 7B	No water in system or high pressure boiler after installation phase.	Check pump	
		Check flowmeter	
		Check Coffee water valve	
SERVICE OFF 8	The brewer does not move to its end position.	Check the micro-switch on the brewer motor	
		Voltage for brewer motor leakage	
SERVICE OFF 8 A	The micro-switch for the brewer is blown out	The brewer is not installed or not installed properly.	
		The micro-switch is defective	

23. Trouble shooting (error messages)

Error messages

| | | | **23.1** |

Display CODE	Cause	Fault elimination	TIP
SERVICE OFF 8 B	The micro-switch for the water supply to the brewer has triggered	The water supply pipe for the brewer was not installed or not installed properly	
		The micro-switch is defective	
NO COFFEE OFF 9	The time span for filling up the portioning unit was exceeded	The coffee beans container is empty	
		The slide on the beans container is closed	
		The grinding disks are blunt and must be replaced	
		The 6.3A fuse is blown out	
		Defective doser micro-switch	
SERVICE OFF 10	Loss of programmed inputs or program memory malfunction RAM WITHOUT data.	Load standard data	
		Replace the RAM	
SERVICE OFF 14	Water loss without any sale	Leakage in the compensating tank	
	Boiler level control not ok	Inspect the micro-switch on the compensating container	
SERVICE OFF 16	The programming key on the display unit is stuck or defective	Check the key and replace when necessary	
SERVICE OFF 17	A key of the keyboard is stuck or the keypad is defective	Check the keyboard and if necessary, replace the keypad	
SERVICE OFF 24 VOLT A	6.3A fuse on the CPU is blown out	CPU defective	
		One motor has a defect	
	24 Volt Voltage supply not available	Transformer is defective	
		Transformer plug is defective	
	Strip conductors on the CPU broken	CPU defective	
		One motor has a defect	
SERVICE OFF 24 VOLT B	One transistor in the power supply on the CPU is defective	Replace transistor	
		Replace CPU	
SERVICE OFF 31 A	Boiler is too hot	CPU defective (Triac for heating element short-circuits)	

23. Trouble shooting (error messages)

23.1			
		Error messages	

Display-CODE	Cause	Fault elimination	TIP
SERVICE OFF 31 B	Boiler is too cold	Safety temperature limiter CPU defective (Transistor defective)	
SERVICE OFF 31 C	Temperature sensor does not measure	Temperature sensor is defective Power supply to temperature sensor interrupted	
SERVICE OFF 99	Product Counter on "0"	Reactive counter see section 22.2	
ERR 12 Volt **O AN 6**	Transistor voltage missing	No program loaded	Reload software using Flash card

23. Trouble shooting

Causes of malfunctions without error messages

	23.2

For the malfunctions described here no error messages are displayed on the display unit.

ⓘ

Fault	Possible Cause	Solution
The machine is out of operation, no part gets any power	Power supply had broken down	Check input voltage and restore when necessary
	Main fuse has blown out	Replace fuse
The machine is out of operation, nothing can be seen on the display unit but a few parts continue to get power	The fuse for 8.5 Volt on the CPU is defective	Replace fuse
	The display unit is not properly connected to the CPU	Check plug connection
The machine is on, however, neither product nor water is being dispensed	One of the 24 Volt fuses is defective. Transformer output voltage	Replace fuse
The machine is on, there is water but no product being dispensed	Product containers are not put in place properly	Put the product container properly in place
	Product motor is defective	Replace product motor
		Triac PCB is defective
	Plug connection is loose	Check cable connection

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