

**o cino**

**xs speedmix H3**

**Operating manual**

**1<sup>st</sup> edition 12/2003**

**Software version FXSHD 1A onwards / 22.09.2003**







# 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 depending 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

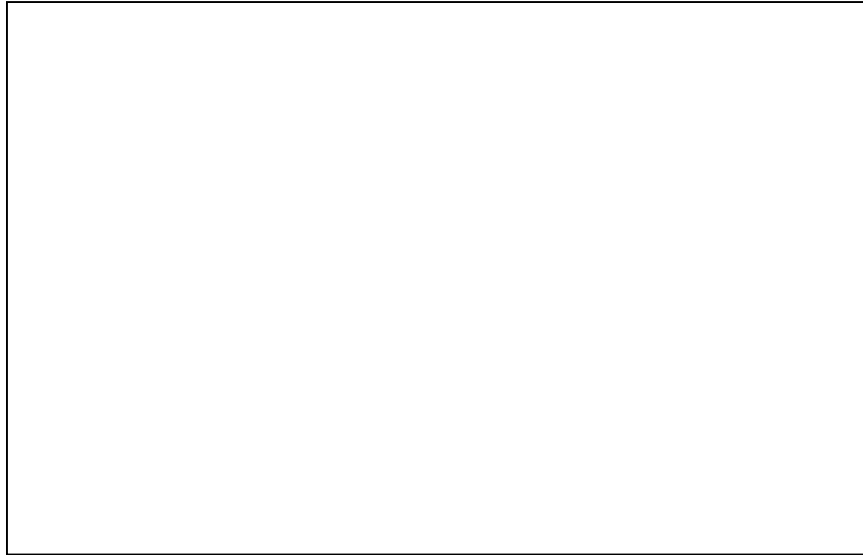
## Technical quality control

Our electronic FlashCard-memory guards A+R. The service agent can adjust the feed for some more/less water/product

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.

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## 1. Important notes

### 1.1

#### Details concerning the quality

	<ul style="list-style-type: none"> <li>◦ <b>The quality</b> of the machine is intended only for production with coffee, cocoa, tee or other such drinks the machine is meant for.</li> </ul>	
	<ul style="list-style-type: none"> <li>◦ <b>The typical application</b> is as vending machine for customers, guests and employees.</li> </ul>	
	<ul style="list-style-type: none"> <li>◦ <b>The installation, filling-up and cleaning</b> must be done according to the specifications given in this manual, by our technical partner's staff properly trained by servomat steigler.</li> </ul>	
	<ul style="list-style-type: none"> <li>◦ <b>For changing the quality of coffee, or the product quality</b>, a readjustment by servomat's technical partner is a necessary prerequisite.</li> </ul>	
	<ul style="list-style-type: none"> <li>◦ <b>The machine must be installed</b> in a dry, closed room free of any external environmental effects (e.g. strong vibration).</li> </ul>	
	<ul style="list-style-type: none"> <li>◦ <b>The size and capacity</b>, 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.</li> </ul>	
	<ul style="list-style-type: none"> <li>◦ If the machine is filled up and cleaned by <b>untrained staff</b> an extensive induction by technical partner of servomat is absolutely necessary.</li> </ul>	
	<ul style="list-style-type: none"> <li>◦ The manufacturer will not bear any liability for damage caused by <b>acts of vandalism</b> or improper handling (e.g. manipulation attempts with coins, tokens, cashless means of payment).</li> </ul>	
	<ul style="list-style-type: none"> <li>◦ <b>Wear parts</b> 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.</li> </ul>	
	<ul style="list-style-type: none"> <li>◦ <b>The use of water softeners/ filters</b>, 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.</li> </ul>	
	<ul style="list-style-type: none"> <li>◦ <b>Regular servicing</b> must be done according to the enclosed checklist (minimum twice a year, however, after every 5000 portions). During servicing wear parts must be replaced according to the enclosed list in order to ensure overall functioning.</li> </ul>	
	<ul style="list-style-type: none"> <li>◦ <b>The guidelines for cleaning and hygiene</b> given this manual must be followed in order to ensure flawless functioning of our machine.</li> </ul>	
	<p>Beimerstetten, den 01.01.2002 Text contents are protected by copyright.</p>	

# 1. Important notes

## Servicing checklist

**1.2**

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

Which parts?	What must be done?	
<b>Water tank supply or hard water supply</b>	<ul style="list-style-type: none"> <li>- Clean the water tank and filter set</li> <li>- Replace the seal O-ring inside</li> <li>- Replace the water filter cartridge</li> <li>- Replace the water filter cartridge for hard water</li> </ul>	
<b>Boiler</b>	<ul style="list-style-type: none"> <li>- Dismantle and clean the boiler, decalcify if necessary</li> <li>- Replace the gasket at the boiler outlet</li> <li>- Clean the water level probes, decalcify if necessary</li> <li>- Clean temperature sensor, decalcify if necessary</li> </ul>	
<b>Mixing units</b>	<ul style="list-style-type: none"> <li>- Replace and clean the bowls</li> <li>- Replace the mixer flange O-rings</li> <li>- Replace the mixer motor V-rings</li> <li>- Replace the O-rings of mixing bowl bush</li> <li>- Replace the mixer disks</li> <li>- Inspect mixer motors, replace if necessary</li> </ul>	
<b>Fan</b>	<ul style="list-style-type: none"> <li>- Dismantle the fan and clean</li> <li>- Dismantle the fan duct and clean</li> <li>- Dismantle the fan duct and clean</li> </ul>	
<b>Aqua portioning system</b>	<ul style="list-style-type: none"> <li>- Clean photoelectric barrier</li> </ul>	
<b>Product container</b>	<ul style="list-style-type: none"> <li>- Inspect the products, clean the product containers if necessary</li> <li>- Clean the product chutes</li> </ul>	
<b>Drip pan</b>	<ul style="list-style-type: none"> <li>- Empty the drip pan and clean</li> <li>- Clean the doors in the dispensing area</li> </ul>	
<b>Payment / coin acceptor unit</b>	<ul style="list-style-type: none"> <li>- Inspect and clean the payment system/ coin acceptor</li> </ul>	
<b>Water and electrical plug connections</b>	<ul style="list-style-type: none"> <li>- Inspect all water and electrical plug connections</li> </ul>	
<b>Portioning, temperature and functioning</b>	<ul style="list-style-type: none"> <li>- Check portioning of water and product</li> <li>- Check the temperature</li> <li>- Final inspection and test run, coin acceptance if necessary</li> </ul>	

## 2. Cleaning instructions

### 2.1



For this, we recommend our ready for use HACCP cleaning agent

### General cleaning instructions

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

### 2.2

### Daily cleaning

**1. Fill up the 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. Carry out the rinsing program:**

Press the program button on the inner side of the machine door. A program menu is shown on the display. Press key 4 where 4 = RINSING. Now place a large vessel under the outlet. For the mixing bowl 1 press key 1. Now rinse this mixing bowl thoroughly in multiple rinsing cycles. After that press keys 2, 3 and so on. Press individual keys multiple times until around 3 litre of hot water has been used for rinsing. After that press the program key to re-enter the sales mode.

**3. 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.

**4. Clean the doors in the product dispensing area:** Clean the doors in the product dispensing area from inside as well as outside. Here you could find deposits caused by splashing of the product. Use a damp sponge or cloth to clean these parts.

### 2.3

### Weekly cleaning

Cleaning steps described under sections 1 to 4 are included here.

**5. Clean the mixing bowls:** 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. Clean these parts using the rinsing solution meant for the purpose. Again dry up the parts carefully.



Product chutes get clogged if they are wet.

**6. Clean the product chutes:** Press the product chute lightly against the product container and turn it to the left in the anticlockwise direction. Clean these product chutes using the rinsing solution meant for the purpose. Again dry up these products properly before reinstallation.

**7. 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.



## 2. Cleaning instructions

### Monthly cleaning

**2.4**

Steps for the daily and weekly cleaning described under section 1 to 7 are included here.

**8. 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.

**9. 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.

### Cleaning aids

**2.5**

Use the Clean Set specially prepared for the machine . (Clean Set for XS H3)

The Clean SET allows quick and easy cleaning of the machine.

**The Cleans Set consists of:**

- Pre-assembled mixing bowl and outlet pipe for coffee
- Pre-assembled mixing bowl and outlet pipe for cocoa
- Pre-assembled outlet pipe for water meant for tea
- Right product chute for coffee
- Right product chute for cocoa
- Left product chute for milk
- 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
- HACCP cleaner, diluted and ready for use.



**Clean-Set XS H3**

**Procedure**

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:  
Clean Set XS H3 Item number: 100 540



**Remember that:**

**Cleaning with our Clean Sets is:**

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



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

### 3. Technical data

#### 3.1

#### Technical data sheet

<b>Dimensions</b>	Height (with closed cover) Width (with closed doors) Depth (with closed doors)	520 mm 390 mm 450 mm
<b>Weight</b>	Empty Full	44 Kg 52 Kg
<b>Electrical values</b>	Voltage supply Max. power consumption Consumption with approx. 50 cups per day (130 ml)	230 Volt 50 Hz 16 A 1350 Watt 1,7 Kw/h
<b>Transformer</b>	<b>Primary</b> 230 V (black) <b>Secondary</b> 24 V (blue) 90VA – 100VA 8,5 V (red) 10VA	230 Volt 50 Hz 24 Volt 8,5 Volt
<b>Aqua portioning system</b>	Voltage supply	24 V DC
<b>Boiler</b>	Heating element power Capacity Heating –up time	1300 W 4 Litre approx. 10 minutes
<b>Temperature control</b>	Electronic	PTC sensor
<b>Product motor</b>	Voltage supply Running speed	24 V DC 85 Upm
<b>Mixer motor</b>	Voltage supply Running speed adjustable from	24 V DC 2400 Upm to 16000 Upm
<b>Valves</b>	Voltage supply at inlet valve	24 V DC
<b>Water tank (Standard)</b>	Capacity	approx. 3.5 litre
<b>Hard water supply (optional)</b>	Water pressure Water supply	1 – 8 Bar 3 / 8" or 3 / 4" external
<b>Door lighting</b>	Fluorescent lamps - length 300 mm - diameter 16 mm	220 V / 8 Watt
<b>Miscellaneous</b>	GSM useful via external modem FLASH CARD programming with PC-Software Signal lamp for production run	
<b>Coffee container (small)</b>	Coffee capacity for	approx. 208 cups
<b>Cocoa container (Wide)</b>	Cocoa capacity for	approx. 100 cups
<b>Milk container (Small)</b>	Topping capacity for	approx. 127 cups

## 4. General information concerning the machine

### Rating plate

**4.1**

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

The rating plate is located inside the right side of machine. The rating plate is defined as follows:



Manufacturer's data

Machine data

Machine number

Definition of machine data:

<b>XS</b>	Machine type	CINO XS
<b>H / 3</b>	Model - Design	H = SpeedMix 3 = Number of instant product containers
<b>AA</b>	With water tank	Internal water tank
<b>Matricola</b>	Machine number	03270254

### Kindly note

**4.2**

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

<b>Boiler/Inlet valve</b>	Lime and smudge	- Measure quality of water - Insert water filter
		- Clean periodically or decalcify.
<b>Mixing bowls:</b>	Clogging due to product residues	- Activate daily rinsing program
		- Inspect periodically - Replace V-rings
<b>Product motor:</b>	Products stick together in the product container	- Empty each month and clean product containers
		- Use products suitable for the machine

## 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 a person, who is qualified to handle such equipment on account of his training and experience, and familiar with the relevant safety and accident prevention regulations, and thus in a position to identify and avert danger, is suitable for the job.

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

#### Caution:

**Pull out the mains plug before all 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 at specific locations on the machine.
- - Never operate the machine with a defective power supply.
- - Never immerse the machine in water.
- - Before cleaning the machine without the cleaning program always ensure that the mains plug is pulled out.
- - Never allow children to work on the machine unsupervised

### 4.5

### Safety devices



Door contact switch

- Manually connected safety thermostat for the boiler
- Time controlled protection for the heating system
- Electronic monitoring system of the temperature regulator
- Time controlled protection for the refilling of water
- Flashing light during product dispensation

## 4. General information concerning the machine

### Features of the machine

**4.6**

The machine is delivered with a water tank function. This water tank involves a Tank in Tank filter set with a water filter cartridge. To increase the water capacity, on one hand there is Aqua module with 19 litre water tank and on the other a hard water kit SpeedMix. We recommend that a water filter be installed for the hard water . (See section Water and Filter)

The machine is normally delivered without the payment system. For this there is an option for coin unit kit NRI G13. For cashless payment systems the machine is prepared for the Executive and MDB protocols.

### Accessories

**4.7**

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.



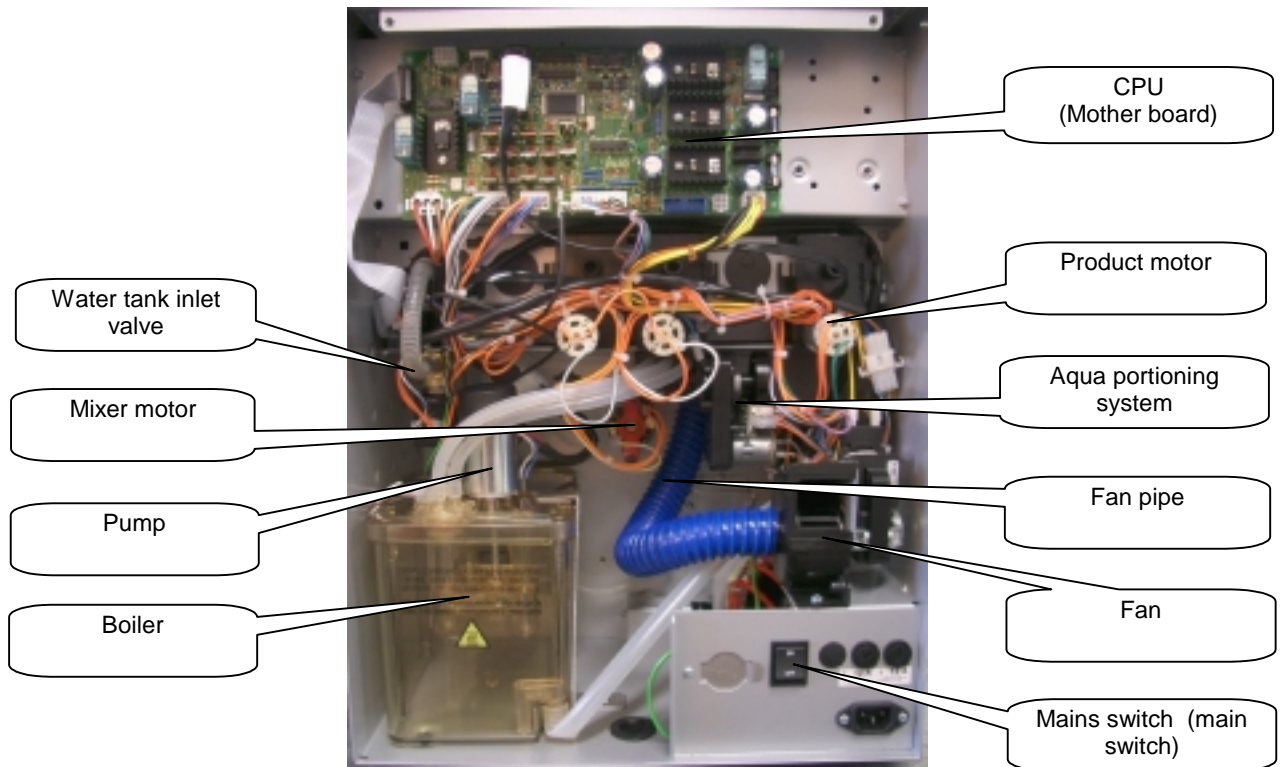
- XS coin unit KIT G13
- XS hard water kit SpeedMix
- XS Tank in Tank filter set
- XS-Tank in Tank filter cartridge
- XS-Multicontainer
- Flash-Card
- FlashCard interface box
- Software editor for Flash Card
- XS front panel (various designs)
- XS accessories (cups, pots, spoons, tablets, Sugar candy, cup warmer)
- XS SpeedMix basic spare parts set (all necessary parts)
- XS SpeedMix CLEAN-SET
- XS cash card kit
- XS AQUA module

## 5. Overview of machine parts

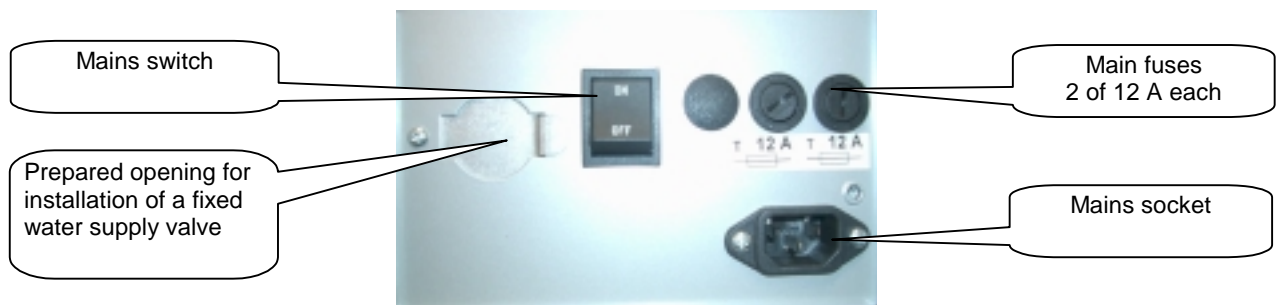
### 5.1

#### Rear panel view

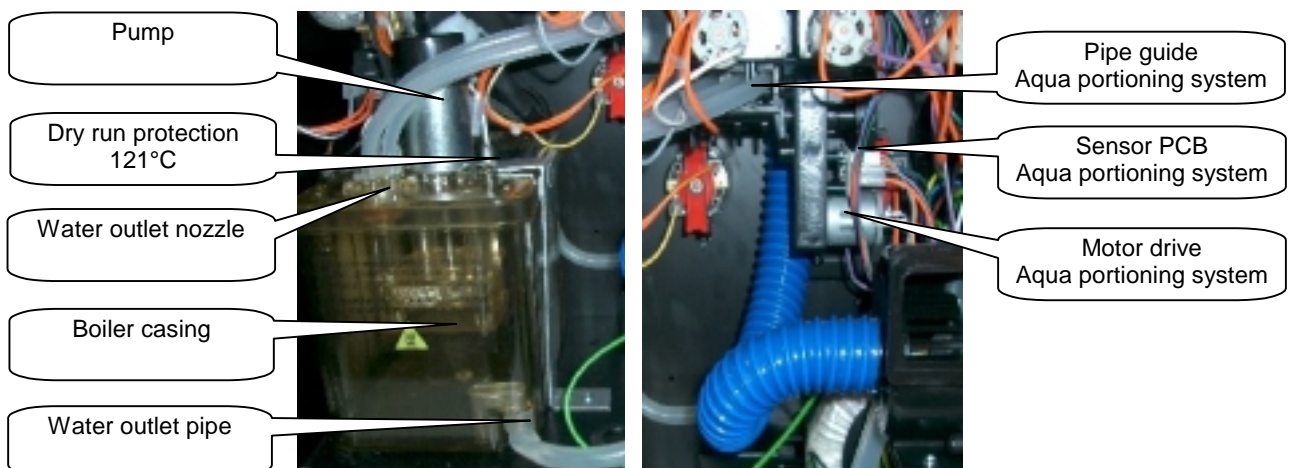
#### Rear casing



#### Rear casing (power module)



#### Rear case (boiler+Aqua portioning system)



### 5. Overview of machine parts

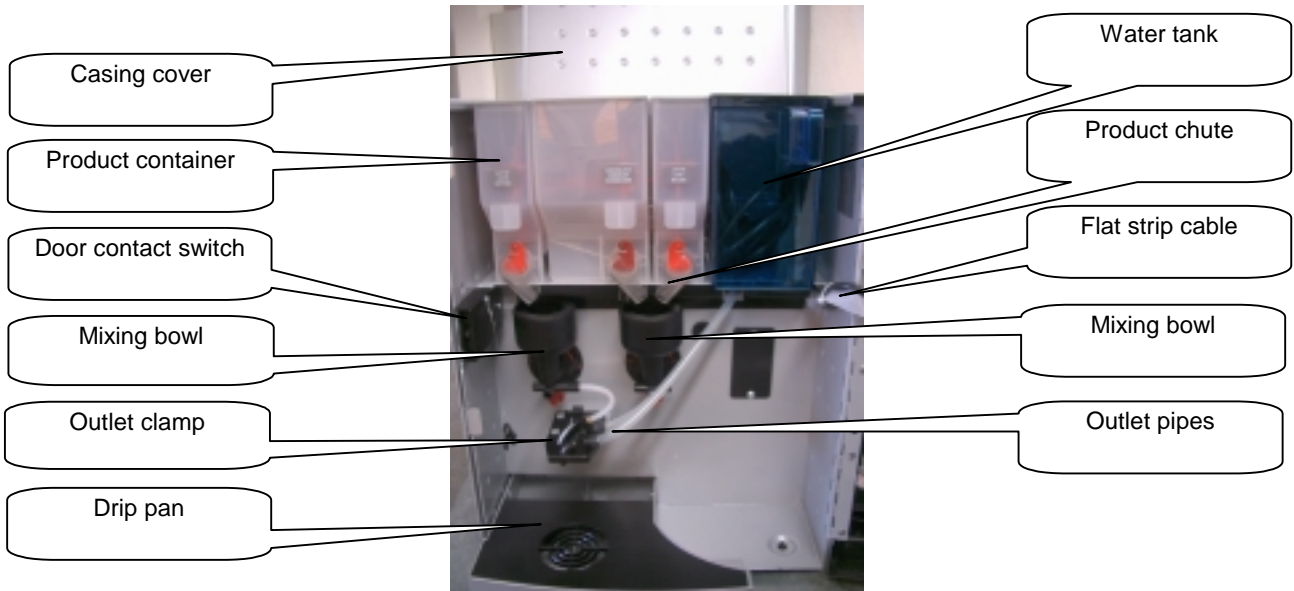
#### Front view

#### 5.2

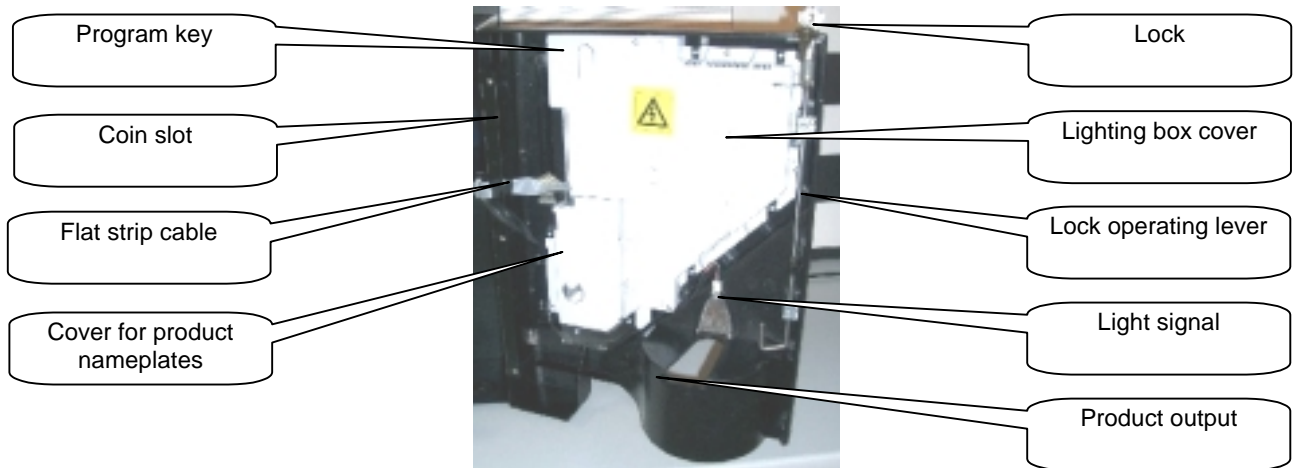
#### Outer casing



#### Inner casing



#### Inner casing (doors)

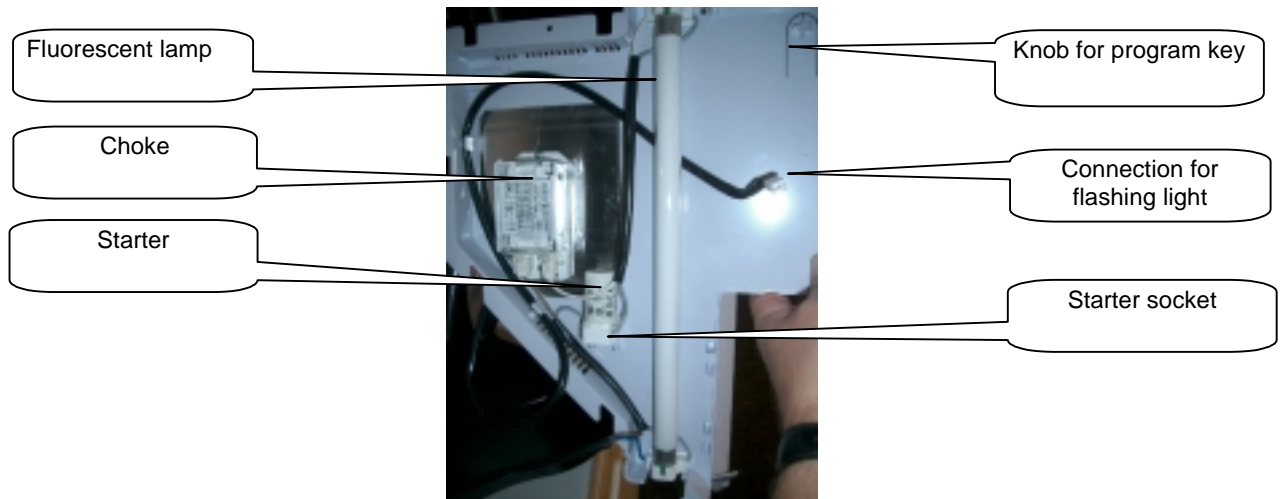


## 5. Overview of machine parts

### 5.3

#### Inside view

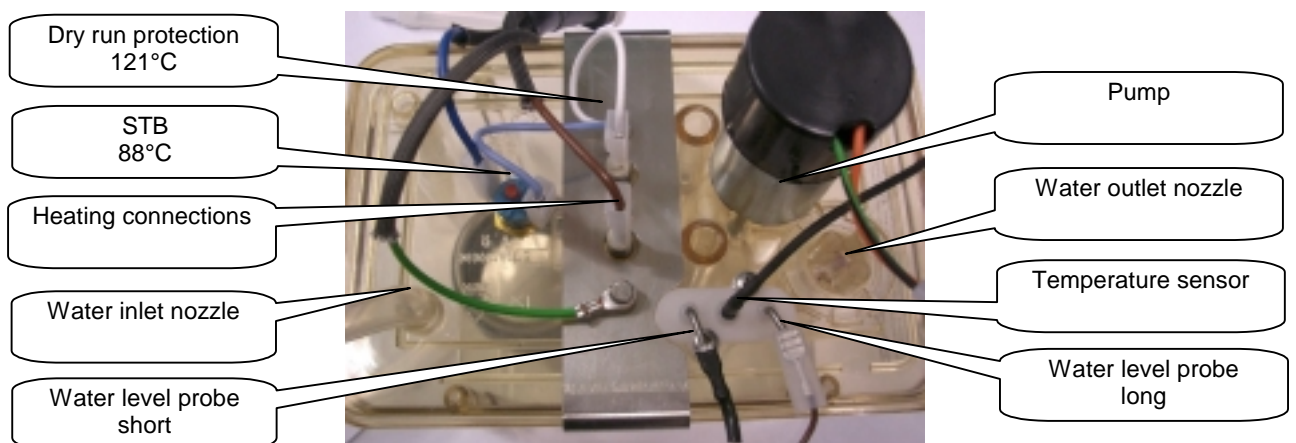
#### Inner door lighting



#### Flashing light on inner and outer doors



#### Boiler connections





## 5. Overview of machine parts

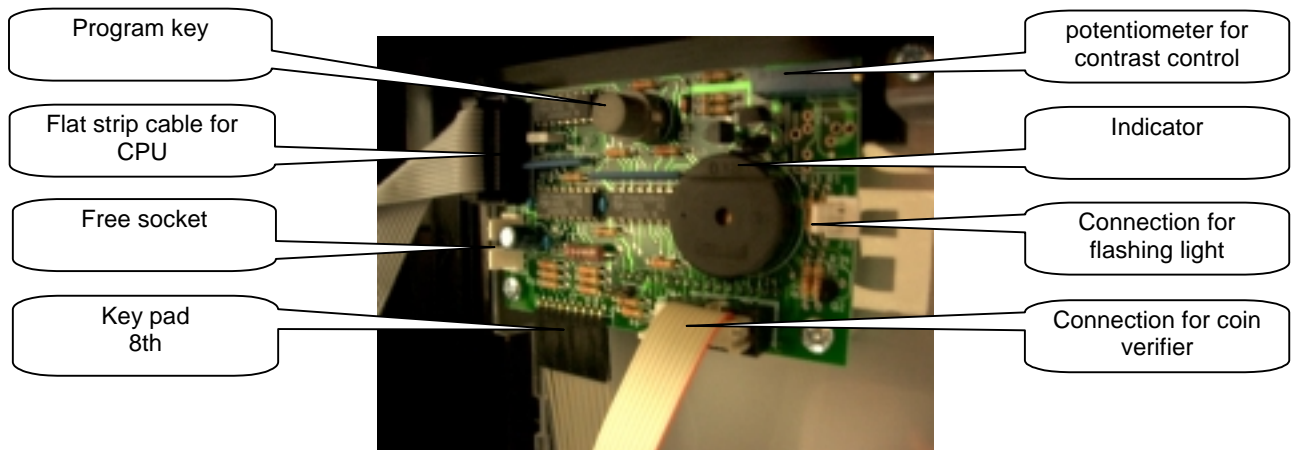
### Rear view

### 5.4

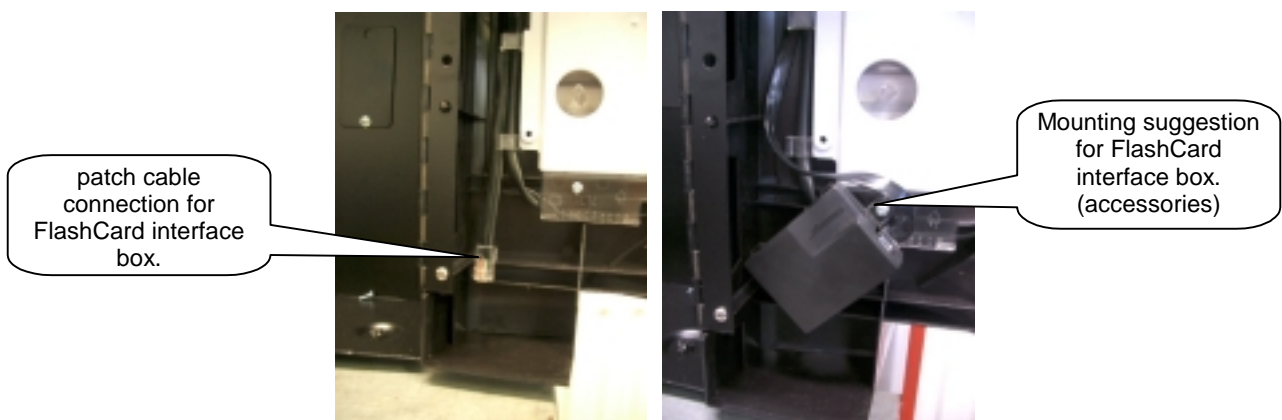
#### Control unit (CPU)



#### Display unit PCB



#### Inner doors



## 6. Unpacking and installation

### 6.1

#### Instructions for installation



#### Caution:

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.

As some products are sensitive to heat and humidity, malfunctions are possible during machine operation if the room temperature exceeds 30°C or the air humidity rises above 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 installed properly. ✓
- The machine keys are tied firmly to 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 solar radiations ✓
- Basically 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 with 16A fuse is required. ✓

## 7. Water and filter

### Water filter

For models, which as a rule do not have a water filter, a water filter is recommended if the water hardness is equal to or above 10° KH or simply on account of taste. An explanation as to which filter systems are suitable for your set-up is given below.

Our water filter systems perform twofold work:

- 1. The activated charcoal** removes substances that cause smell and spoil taste, e.g. chlorine 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.

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

### Mobile water supply (Tank)

For the mobile application we recommend our Tank in Tank filter solution. Simple to install and easy to replace.

#### AquaAroma (Tank in Tank System)

The AquaQuell technology selectively reduces carbonate hardness in the water and thus prevents lime deposits. The contents of calcium carbonate and magnesium carbonate, heavy metals such as lead and copper as well as chlorine residues are distinctly lowered. Valuable contents and minerals ensure full aroma of hot drinks like coffee and tea.

Procedure for the replacement of AquaAroma filter cartridge:

1. Empty water tank
2. Remove the used filter cartridge
3. Insert new filter cartridge and fill up the water tank

### Hard water supply

For the hard water operation we recommend:

#### BRITA AquaQuell 06 (hard water)

The AquaQuell technology selectively reduces carbonate hardness in the water and thus prevents lime deposits. The contents of calcium carbonate and magnesium carbonate, heavy metal such as lead and copper as well as chlorine residues are distinctly lowered. Valuable contents and minerals ensure full aroma of hot drinks like coffee and tea.

**AquaQuell 06  
decarbonised**

#### BRITA AquaVend 06 (hard water)

Active charcoal removes substances causing undesirable taste and smell, chlorine as well as heavy metals from the water. With the silvering of BRITA active charcoal the bacteria growth is specifically restrained. When an additional refining process is used from the very beginning, practically no coal particles are rinsed out. Separate rinsing required till now is no more necessary.

**AquaVend 06 is an  
active charcoal filter**

### 7.1



**The outcome:  
More aroma, less  
lime deposit, reduced  
servicing and  
operating costs,  
minimum downtime.**

### 7.2



### 7.3



## 7. Water and filter

### 7.4

### Performance overview of the filter systems

#### AquaAroma (Tank in Tank System)

The AquaQuell technology selectively reduces carbonate hardness in the water and thus prevents lime deposits. The contents of calcium carbonate and magnesium carbonate, heavy metal such as lead and copper as well as chlorine residues are distinctly lowered. Valuable contents and minerals ensure full aroma of hot drinks like coffee and tea.

**i**  
**Typical application**  
**145 litre with**  
**10°KH or**  
**maximum**  
**4 weeks**

Hardn.	Capacity	Number/tumbler/cups		
	Litre	130 ml	150 ml	180 ml
6	242	1862	1613	1344
8	181	1392	1207	1006
10	145	1115	967	806
12	121	931	807	672
14	104	800	693	578
16	91	700	607	506
18	81	623	540	450

#### BRITA AquaQuell 06 (hard water)

Explanation: See AquaAroma cartridge

**i**  
**Typical application**  
**420 Litre with**  
**10°KH or**  
**maximum**  
**6 Months**

Hardn.	Capacity	Number/tumbler/cups		
	Litre	130 ml	150 ml	180 ml
6	700	5300	4600	3800
8	520	4000	3400	2800
10	420	3200	2800	2300
12	350	2600	2300	1900
14	300	2300	2000	1600
16	260	2000	1700	1400
18	240	1800	1600	1300

#### BRITA AquaVend 06 (hard water)

Active charcoal removes substances causing undesirable taste and smell, chlorine as well as heavy metals from the water. With the silvering of BRITA active charcoal the bacteria growth is specifically restrained. When an additional refining process is used from the very beginning, practically no coal particles are rinsed out. Separate rinsing required till now is no more necessary.

**i**  
**Typical application**  
**10000 litre**  
**or maximum**  
**6 months**

	Capacity			
	Litre			
	10000			

## 7. Water and filter

### Installation of a hard water supply set

**7.5**

For installation proceed as follows:

The set consists of:

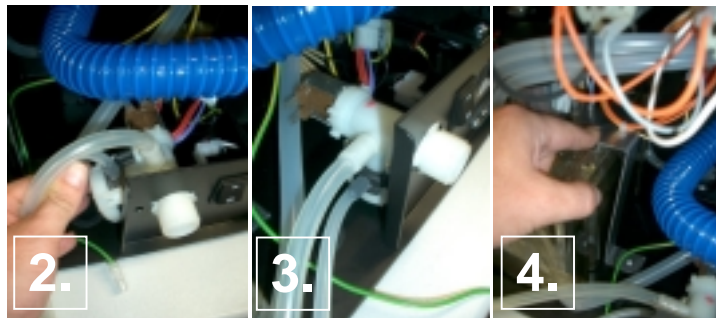
- 1 Inlet valve
- 1 Overflow pipe
- 1 Feed pipe
- 1 Screw fitting
- 1 Connection angle
- 3m PE pipe
- 2 Manometer screws
- 1 Manual



1. Open the rear cover (2 screws) and remove the screen for the inlet valve.(1 screw)

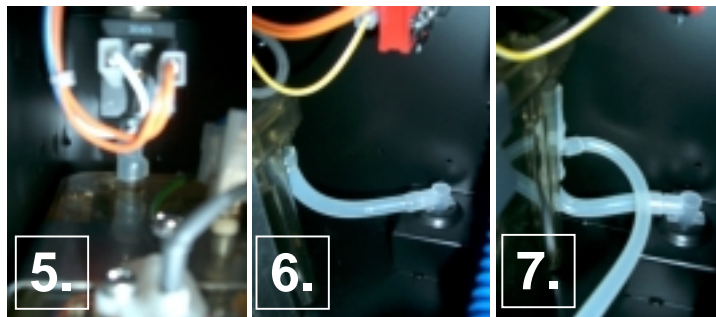
2. Insert the inlet valve guided with the straps from inside while turning the membrane box downwards into the opening.

3. The correct mounting position can be seen here.



4. Now pull the boiler outwards by pushing away the right retaining clip laterally. Pay attention to the other cables and pipe joints.

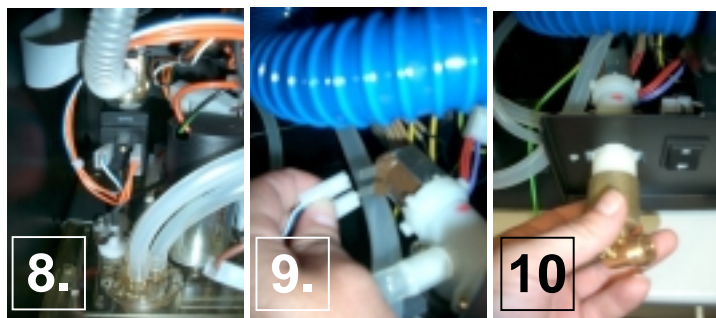
5. Now have a look at the feed pipe joint on the left rear end of the boiler cover. Pull this out. Now take the thick pipe from the inlet valve and put it there.



6. Remove the mounted overflow pipe.  
7. Mount the supplied overflow pipe with short thick end towards the boiler end. Put on the connection angle for the drip pan.

8. Pull out the electrical connections from the tank inlet valve.

9. Put them on the newly mounted inlet valve. The polarity is here immaterial.



10. Screw on the supplied reducer on the inlet valve. Do not tighten it too much. Gasket is mounted. Seal the connection angle and open it up again.

11. Now turn the manometer screw on the connection angle. Seal this.

12. Now press the PE pipe on the connection. Firmly tighten the union nut.



13. The thin pipe at the inlet valve is used for overflow safety. In case of faults like OFF 6 no water, this must be pulled out. Empty it, and then again put the pipe in place.



Close the other end of the pipe at the corner valve. Open the water supply and check the joints for tightness.

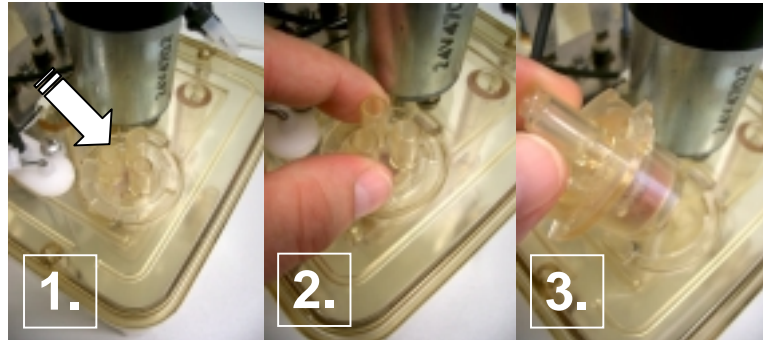
## 7. Water and filter

### 7.6

### Cleaning the boiler

The boiler is the most important element in the water cycle of the machine. Therefore, protect the water system from dust and calcification. Carry out periodic maintenance and servicing work, even at the time of water filter installation. The most important parts are given below:

1. Clean the boiler outlets
2. Remove the outlets by turning them in the clockwise direction.



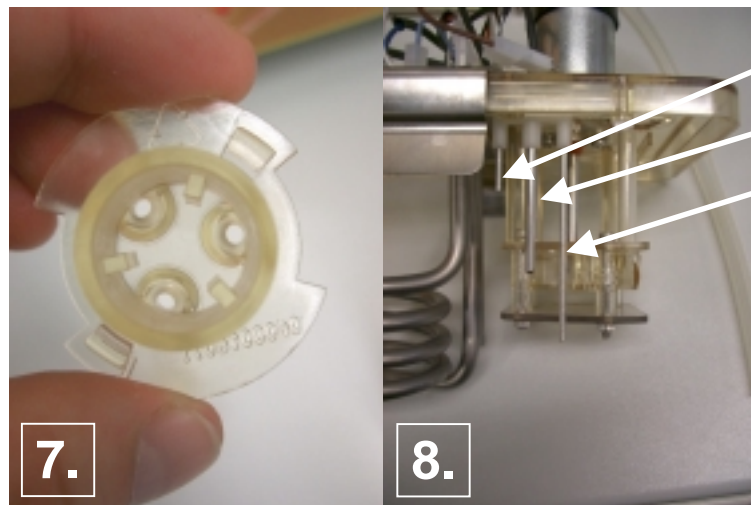
3. Pull out the complete outlet module from the boiler.

4. Now again turn the outlet nozzle and its spout in the clockwise direction.



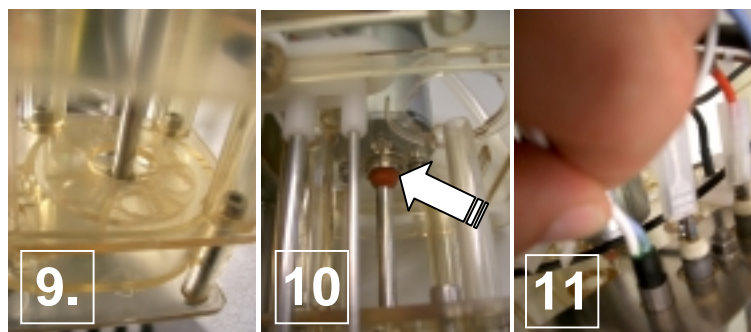
5. Separate the parts.
6. Remove the large V-ring. Replace it if necessary.

7. Put the outlet spout and the outlet casing in a cleaner or a decalcification agent. Clean the outlet nozzles. Here residues of dust and lime can lead to severe water fluctuations.



8. Clean the short water level probe, the temperature sensor as well as the long water level probe. Please do not use any emery paper or wire brush. Put the parts without connections in container with cleaner or decalcification agent.

9. In the suction casing check the fastening screw of the impeller for tightness.
10. Inspect the V-ring on the pump axis. It should not be too tight. It is only meant to be a splash protection.



11. If you want to decalcify the complete boiler, first remove the dry run protection. Hold the top part in the boiler housing. After this rinse the parts properly.

## 8. Start-up

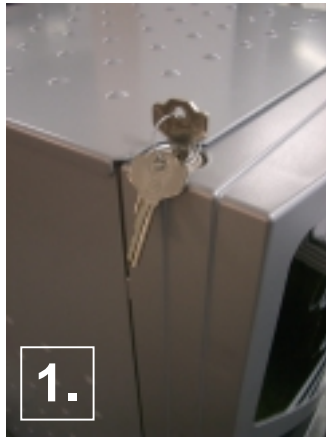
### Initial start-up with water tank

#### 8.1

Read through the operating manual. The circuit diagram legend helps you to understand the connections and the electrical scheme. The labels are fixed as described in the section Machine specifications.

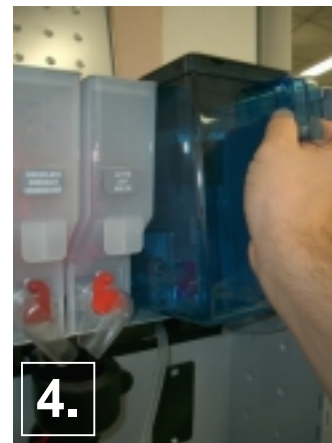


1. The machine keys can be found fixed on the grid on the drip pan. Remove these and open the machine doors.



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.

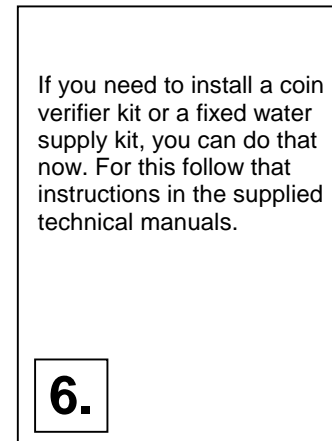


4. Remove the water tank from the machine and fill it up with filtered potable water up to the edge. If you are using a Tank in Tank filter cartridge, first of all put it for a minutes in water before installation.



**Do not switch on the machine yet.**

5. 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 verifier kit or a fixed water supply kit, you can do that now. For this follow that instructions in the supplied technical manuals.



**Do not switch on the machine yet.**

## 8. Start-up

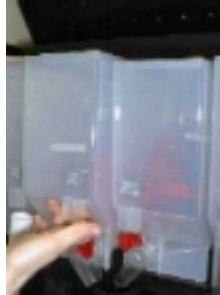
### 8.2

### Tip for the first thorough cleaning

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



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

Loosen the torque mixing bowls.



Remove the mixing bowls

Remove the product outlet pipes



Remove the mixer disks



While assembling bear in mind that the product chutes are different. Cocoa has a dark red product chute.





## 8. Start-up

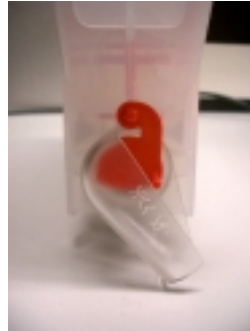
### Filling up the product

8.3



Now fill up the products mentioned on the product containers. First of all close the red shut-off flaps on the product containers. Open the red shut-off flaps again after fill-up. (Pictures of the product container are similar)

Red shut-off flap opened



Red shut-off flap closed



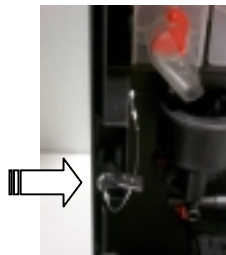
Now begin the automatic rinsing of the machine so that the product, that trickled into the mixing bowls, is rinsed away. To prevent clogging follow this procedure each time the machine is filled up.

For this proceed as follows:

### Switching on the machine

8.4

Take the door contact key and turning it anticlockwise insert it into the door contact switch.



**XS H3 std. F.C.  
FXSHD 1A 22-09-03**

The machine starts. The display shows the software version of the machine in the first 3 seconds.

**switching on .....  
please wait**

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

**refilling water  
wait**

After this the machine goes automatically into water fill-up phase. Check the connections for tightness.

**OFF 6 A  
NO WATER**

During fill-up phase it is possible that the machine indicates malfunction. Fill up the water tank once again and then press button 1.

**FILL IN WATER  
RESET SEL 1**

**wait  
temperature**

After the fill-up phase the machine goes into heat-up phase. The set value is 85° C. The machine is ready for operation once this value is reached.

**rheavendors  
XS**

The display then alternately shows:  
and:

**place  
your cup**

## 8. Start-up

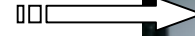
### 8.5

### Cleaning with the rinsing program

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

1=PROGR  
3=FREE

2=DATI 4=CLEAN  
5=MAINT.



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

cleaning  
sel 1 - 2 - 3

From the keyboard with selection buttons 1, 2 and 3,  
you can now clean the mixing bowls 1, 2  
and tea water pipe associated with them in short cycles.

cleaning 1

cleaning 2

cleaning 3

Now for the mixing bowl 1 press button 1. The display shows:  
"cleaning 1". The mixing bowl is now cleaned in a short rinsing  
cycle. Press buttons 1, 2 and 3 multiple times one after  
another to clean out the mixing bowls and the tea water pipe.  
Clean out with approx. 3 litre water. During this procedure  
place a large vessel under the outlet.

**Our TIP:**  
**We would like to emphasize that this cleaning must done  
daily.**



## 9. Installation of a payment system

### Installation of a NRI G13 coin acceptor KIT

**9.1**

Zum Einbau eines Münzprüfer-KIT gehen Sie wie folgt vor:

**The kit consists of:**

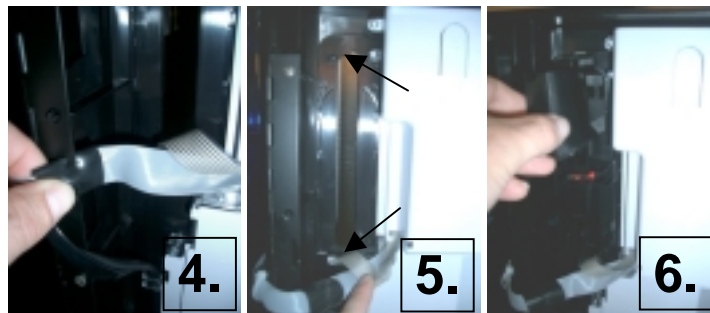
- 1 Coin acceptor unit NRI G13
- 1 Coin acceptor unit clamp
- 1 Coin slot
- 1 Lockable cash counter
- 4 Screws
- 1 short cash counter bolt
- 1 long cash counter bolt



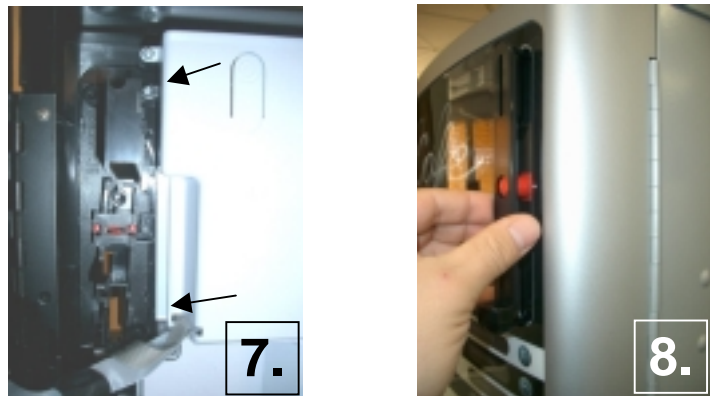
1. Remove coin slot
2. From inside push the coin slot outwards at the centre.
3. Remove the coin slot



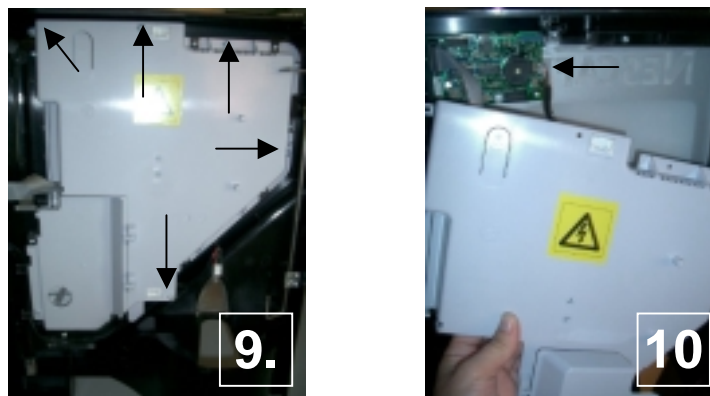
4. Remove the flat strip cable from the clamp.
5. Now you can see the fixing points.
6. Now take the clamp and position it on the fixing points.



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

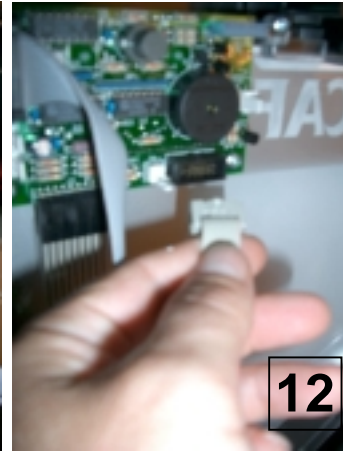
### 9.1

### Installation of a NRI G13 coin acceptor KIT

To install a coin acceptor kit, proceed as follows:

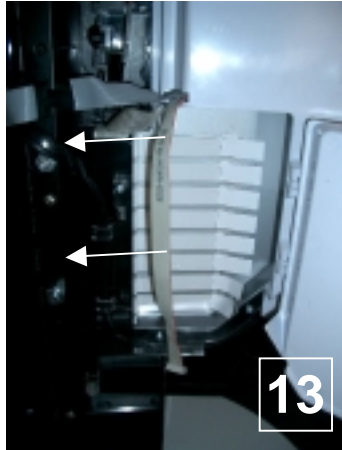
**11.** Remove the lighting box carefully pushing it downwards. There are still some cables on it that you do not need to pull out.

**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.

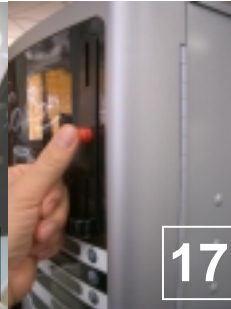
**14.** Now plug the other end of the flat strip cable into the coin collector unit.



**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

### 10.1

Kindly ensure that the containers do not get mixed up. Put the containers back in the correct place. Take care that the product chutes are fitted on the correct container.

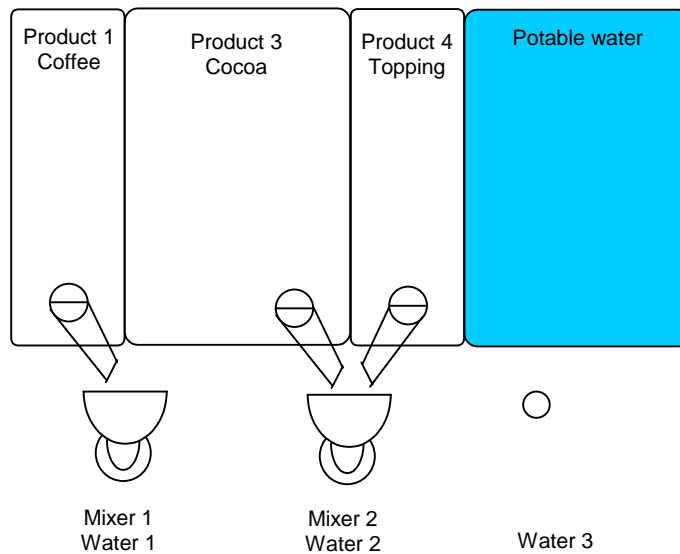


**Product details:**

- Product 1**  
Coffee
- narrow portioning spiral
  - Portioning motor 85 rpm
  - low product chute (bright red lock)

- Product 3**  
Cocoa
- wide portioning spiral
  - Portioning motor 85 rpm
  - high product chute (dark red lock)

- Product 4**  
Topping
- narrow portioning spiral
  - Portioning motor 85 rpm
  - low product chute (bright red lock)



In program mode the components are named as follows:

- Product1 = Coffee
- Product3 = Cocoa
- Product4 = Topping

- Water1 = Coffee water
- Water2 = Milk water
- Water3 = Tea water

- Mixer1 = Coffee mixer
- Mixer2 = Milk mixer

## Options

### 10.2

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



Take care that the labels and the product containers are installed properly.

- Cappuccino (1)
- Latte Macchiato (2)
- Espresso (3)
- MoccaCino (4)
- Black Coffee (5)
- Chocolate (6)
- Café au Lait (7)
- Hot Water (8)

Configuration Std 00

- Cappuccino (1)
- Latte Macchiato (2)
- Espresso (3)
- MoccaCino (4)
- Black Coffee (5)
- Chocolate (6)
- Café au Lait (7)
- Hot Water (8)

Configuration Std 01

- Cappuccino (1)
- Cappuccino Extra (2)
- Espresso (3)
- MoccaCino (4)
- Black Coffee (5)
- Chocolate (6)
- Café au Lait (7)
- Hot Water (8)

Configuration Std 02

# 11. Basic programming functions

## 11.1

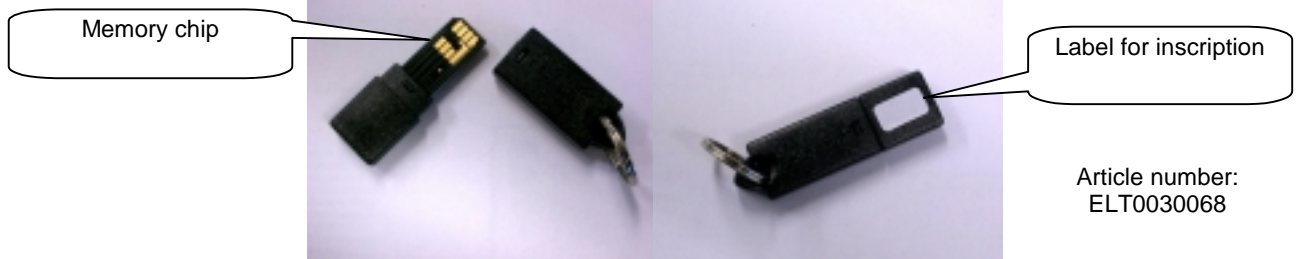
### Flash Card controls



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

#### FlashCard

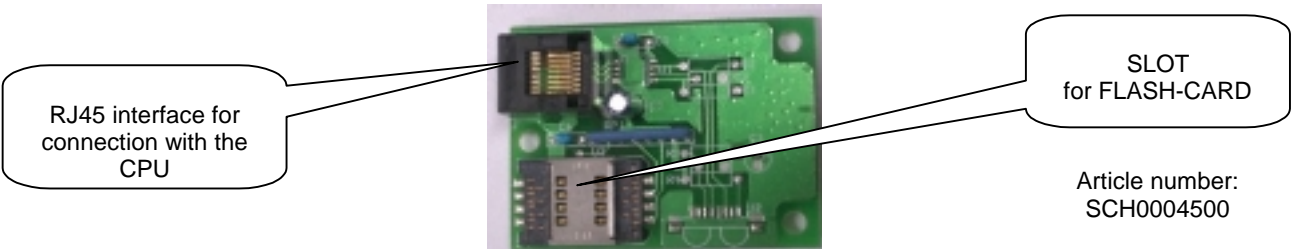
The Flash Card is a storage medium with a 1 MB memory chip. **TIP** If you program a Flash Card, you must fix a label on it so that there is no room for confusion.



Article number:  
ELT0030068

#### FlashCard Interface

The Flash Card interface is an optional accessory.



Article number:  
SCH0004500

#### FlashCard Interfacebox

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

#### FlashCard 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 SET for you.  
The Flash Card SET consists of:  
1 x Software Editor RHEAction  
1 x Flash Card Reader  
2 x Flash Card 1 MB



Article number:  
500008

# 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?

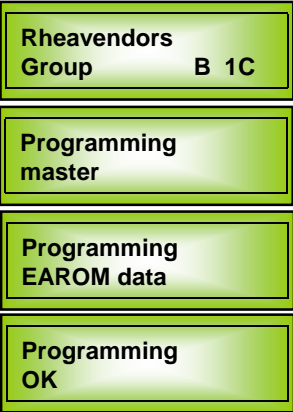
11.3

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 doors.
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: PROGRAM MASTER".
5. After 15 sec. appears the following flashing message: "PROGRAM DATA EA ROM".
6. After 15 sec. appears the following message: "PROGRAMMING CORRECT"
7. 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.



## Saving the machine data

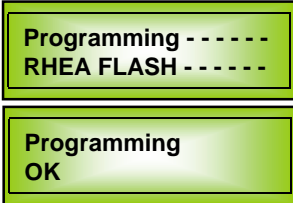
11.4

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.



# 11. Basic programming functions

## 11.5

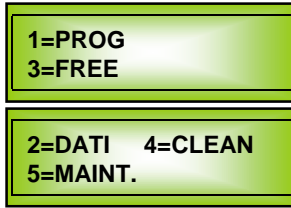
### General functions

Program key



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

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



Using the selection key 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 6 – 7 – 8.

#### 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

#### 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=RINSING

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

#### 5=SERVICE COUNTER

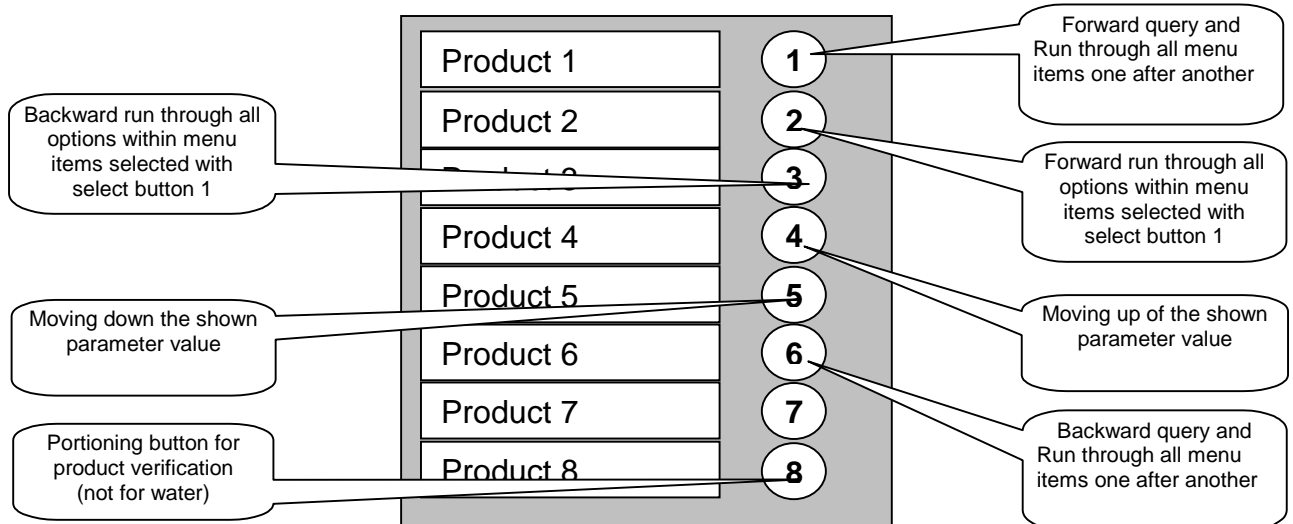
On pressing button 5 you reach the service counter. In this regard read section 22.1. On pressing the programming key you go back to the sales mode.



**For ending the counter status query, press programming key.**

## 11.6

### Selection keys in the programming mode





## 11. Basic programming functions

### Tabular 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
Prices	Setting the sales price	14.2
Coin	Value of coin A to coin F (only pulse generator)	14.3
Temperature	Temperature boiler	15.1
Miscellaneous	Machine code A Machine code B Message number Coin mech type Free Fan time Beep time Decimals number Language free not active free 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
Diagnostics	Display temperature Voltage Pump throughput	17.1 17.2 17.3
Sales data	Total selections Partial Total money N tests Total selection 1 to total selection 8	18.1 18.2 18.3 18.4 18.5
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
Registration out of service	No. 1 to no. 20	21.1
Programming maintenance	Counter filter H <sub>2</sub> O free free	22.1

## 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 6 – 7 – 8 in succession

After successful entry the display shows:

PROGRAMMING  
BUTTON 1 -----

Press button -2-. The display shows:  
Here set the portioning for product 1.  
The display "Operating time 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. 30seconds).

PRODUCT 2  
0=inhib. 3.0

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 dose of the selected product.

Operating time  
WATER 2 5.0

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

Operating time  
MIXER 1 8.0

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

PROGRAMMING  
BUTTON 2 -----

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

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

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

### 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.



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

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

## 13. Portioning list

### Explanation on portioning list

13.1

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.



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**.

#### Button inhibited:

You have the option to deactivate the individual buttons. 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 total:

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



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 ... 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



These are approximate values.

These are approximate values.

## 13. Portioning list

<b>13.2</b>		<b>Portioning list XS H / 3</b>					
Software version: FXSHD 1A–22.09.03	<b>Standard data 00</b>		<b>Standard data 01</b>		<b>Standard data 02</b>		
	Volume of water q 130 ccm		Volume of water q 150 ccm		Volume of water q 150 ccm		
	Product 4 = Topping		Product 4 = Topping		Product 4 = Whitener		
	Time	Gram / ml	Time	Gram / ml	Time	Gram/ ml	
<b>BUTTON 1</b>	<b>CAPPUCCINO</b>		<b>CAPPUCCINO</b>		<b>CAPPUCCINO</b>		
BUTTON Functioning/ Inhibited	Functioning		Functioning		Functioning		
Programming Partial / Total	Partial		Partial		Partial		
PRODUCT 1	1,5	1,8 g	1,6	2,0 g	1,6	2,0 g	
PRODUCT 4	2,0	6,0 g	2,2	4,1 g	1,2	3,3 g	
WATER 1 TIME	4,0	60 ml	4,0	60 ml	4,0	60 ml	
MIXER 1	6,0		6,0		6,0		
MIXER SPEED 1	00		00		00		
WATER 2 TIME	4,0	60 ml	5,0	80 ml	5,0	80 ml	
MIXER 2	6,0		7,0		7,0		
MIXER SPEED 2	00		00		00		
<b>BUTTON 2</b>	<b>LATTE MACCHIATO</b>		<b>LATTE MACCHIATO</b>		<b>CAPPUCCINO EXTRA</b>		
BUTTON Functioning/ Inhibited	Functioning		Functioning		Functioning		
Programming Partial / Total	Partial		Partial		Partial		
PRODUCT 1	1,9	2,3 g	2,0	2,4 g	1,6	2,0 g	
PRODUCT 3	0		0		0,6	4,5 g	
PRODUCT 4	5,0	11,0 g	5,5	12,0 g	1,2	3,3 g	
WATER 1 TIME	1,5		1,5		4,0	60 ml	
MIXER 1	4,0		4,0		6,0		
MIXER SPEED 1	00		00		00		
WATER 2 TIME	6,0		7,0		5,0	80 ml	
MIXER 2	5,0		6,0		7,0		
MIXER SPEED 2	00		00		00		
<b>BUTTON 3</b>	<b>ESPRESSO / CREMOCA</b>		<b>ESPRESSO / CREMOCA</b>		<b>ESPRESSO / CREMOCA</b>		
BUTTON Functioning/ Inhibited	Functioning		Functioning		Functioning		
Programming Partial / Total	Partial		Partial		Partial		
PRODUCT 1	1,2	1,5 g	1,2	1,5 g	1,2	1,5 g	
WATER 1 TIME	3,0	30 ml	3,0	30 ml	3,0	30 ml	
MIXER 1	5,0		5,0		5,0		
MIXER 2	0		0		0		
MIXER SPEED 1	00		00		00		
<b>BUTTON 4</b>	<b>MOCCACINO</b>		<b>MOCCACINO</b>		<b>MOCCACINO</b>		
BUTTON Functioning/ Inhibited	Functioning		Functioning		Functioning		
Programming Partial / Total	Partial		Partial		Partial		
PRODUCT 1	2,0	2,4 g	2,1	2,6 g	2,1	2,6 g	
PRODUCT 3	1,2	8,0 g	1,3	8,5 g	1,3	8,5 g	
PRODUCT 4	2,0	6,0 g	2,2	6,3 g	1,6	4,3 g	
WATER 1 TIME	3,5	50 ml	3,5	50 ml	3,5	50 ml	
MIXER 1	5,5		5,5		5,5		
MIXER SPEED 1	00		00		00		
WATER 2 TIME	4,0	60 ml	5,0	80 ml	5,0	80 ml	
MIXER 2	6,0		7,0		7,0		
MIXER SPEED 2	00		00		00		

## 13. Portioning list

	Portioning list XS H / 3				13.2	
Software version: FXSHD 1A–22.09.03	Standard data 00		Standard data 01		Standard data 02	
	Volume of water q 130 ccm		Volume of water q 150 ccm		Volume of water q 150 ccm	
	Product 4 = Topping		Product 4 = Topping		Product 4 = Whitener	
	Time	Gram / ml	Time	Gram / ml	Time	Gram / ml
<b>BUTTON 5</b>	<b>BLACK COFFEE</b>		<b>BLACK COFFEE</b>		<b>BLACK COFFEE</b>	
BUTTON Functioning/ Inhibited	Functioning		Functioning		Functioning	
Programming Partial / Total	Partial		Partial		Partial	
PRODUCT 1	1,5	1,8 g	1,6	2,0 g	1,6	2,0 g
WATER 1 TIME	9,0	130 ml	10,0	150 ml	10,0	150 ml
MIXER 1	5,0		5,0		5,0	
MIXER SPEED 1	00		00		00	
<b>BUTTON 6</b>	<b>CHOCOLATE</b>		<b>CHOCOLATE</b>		<b>CHOCOLATE</b>	
BUTTON Functioning/ Inhibited	Functioning		Functioning		Functioning	
Programming Partial / Total	Partial		Partial		Partial	
PRODUCT 3	3,2	22,0 g	3,3	24,0 g	3,3	24,0 g
WATER 2 TIME	7,0	110 ml	8,0	130 ml	8,0	130 ml
MIXER 2	9,0		10,0		10,0	
MIXER SPEED 2	00		00		00	
<b>BUTTON 7</b>	<b>CAFE AU LAIT</b>		<b>CAFE AU LAIT</b>		<b>CAFE AU LAIT</b>	
BUTTON Functioning/ Inhibited	Functioning		Functioning		Functioning	
Programming Partial / Total	Partial		Partial		Partial	
PRODUCT 1	1,9	2,3 g	2,0	2,4 g	2,0	2,4 g
PRODUCT 4	2,3	6,5 g	2,4	6,7 g	2,1	6,0 g
WATER 1 TIME	3,5	50 ml	4,0	60 ml	4,0	60 ml
MIXER 1	5,5		6,0		6,0	
MIXER SPEED 1	00		00		00	
WATER 2 TIME	4,0	60 ml	5,0	80 ml	5,0	80 ml
MIXER 2	6,0		7,0		7,0	
MIXER SPEED 2	00		00		00	
<b>BUTTON 8</b>	<b>HOT WATER</b>		<b>HOT WATER</b>		<b>HOT WATER</b>	
BUTTON Functioning/ Inhibited	Functioning		Functioning		Functioning	
Programming Partial / Total	Partial		Partial		Partial	
WATER 3 TIME	8,0	130 ml	9,5	150 ml	9,5	150 ml

### IMPORTANT NOTE:

In this portioning list all menu items, which can be changed, are listed.

In programming mode REDUCED, even those parameters that cannot be changed but have a function, are also visible. These parameters are fixed for the product recipe.

In programming mode OPEN all parameters are visible. For each key programming you have over 40 set points available to you. Which means that with 8 selection keys you have over 240 parameters that can be taken into account for programming a machine. To make the programming clearer to you we have integrated the program item Programming REDUCED.

In the standard data **00 / 01 / 02** we have provided you the standard values which are suitable for most of the products.

## 14. Set sales price

### 14.1

#### 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

### 14.2

#### Set sales price

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

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

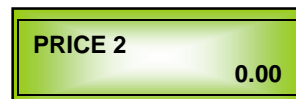


**The sales price must be adjusted according to the smallest coin value used in the coin acceptor unit.**

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



Press button 2 after you have set price 1. The display shows:



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

Repeat the procedure as described earlier up to Price 8.

### 14.3

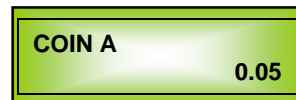
#### Fix the value of the coins

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



**This function is supported only in connection with the pulse generators.**

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.**

## 15. Setting the temperature

### Boiler temperature

**15.1**

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

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

**TEMPERATURE**  
**boiler 85**

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

Using selection buttons 4 and 5 you can set the heating temperature of the boiler. The set-point should not exceed the basic value of 85 °C.



**Highest setting 85°C**

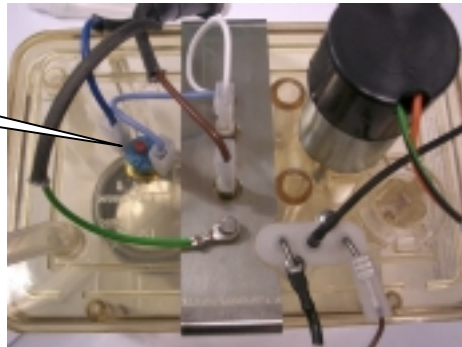
### Caution in case of temperature rise

Follow the previous data and never set the temperature above 85°C. If this limit is exceeded the following must be expected:

1.

The safety temperature limiter (STB) on the boiler cover gets triggered. This can be reset by at the touch of a button. (see figure)

STB 88°C



2.

The coffee is "burnt", it is undrinkable. Instant coffee should be mixed with the water temperature at approx. 78°C. Which means that with a temperature setting of 85°C the temperature in the mixing bowl is approx. 78°C.

### 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.



Cup warmer

Article number:  
119 054

## 16. Miscellaneous settings

### 16.1

#### Machine number

In programming select key –1- select the list “Miscellaneous programming”. The display shows:

PROGRAMMING  
MISCELLANEOUS - -

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

machine code  
A 00

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

machine code  
B 00

### 16.2

#### Information

You have the option to select from multiple fonts in the display.

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

message number  
0

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

rheavendors  
XS

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

place  
your cup

Allow yourself  
a break



Setting “3” can be freely programmed with the Flash Card editor.

### 16.3

#### Payment system

Press button –2-. The display shows:

coin-mech type  
PAR. SING. VEND.

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)

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

SERVICE  
OFF 2





## 16. Miscellaneous settings

### Fan after-run time

16.4

fan time  
min. 0

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.**

### Time signal

16.5

beep time 3

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.

### Decimal position

16.6

decimals number 2

Press button –2-. The display shows:  
Setting of the decimal point according to German and/or  
European coin value (x . xx). **Setting = 2**

### Language

16.7

SPRACHE:  
DEUTSCH

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.

LANGUAGE:  
ENGLISH

LINGUA:  
ITALIANA

### Standard data

16.8

Standard data  
0-1-2 00

Press button –2-. The display shows:  
Here you can specify which standard values you wish to access.  
**00 = Standard data for 130 ccm with topping**  
**01 = Standard data for 150 ccm with topping**  
**02 = Standard data for 150 ccm with whitener**  
Set the value with buttons 4 and 5.  
Bear in mind the following point to so ensure that the values are  
accepted.



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

### Load standard data

16.9

Standard data  
4=load

Here 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. Diagnosis program

### 17.1



### Display temperature

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

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

**1** = permanent temperature display on the display

**0** = no temperature display on the display

After the test again deactivate this display so that the other display information can be shown.

HABIL. DISPLAY  
TEMPERA. 1=YES 0

### 17.2

### Voltage

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

Here you can read the output voltage from the transformer.

VOLTAGE  
volt: 24,8

### 17.3



### Pump throughput

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

With this option you can regulate the throughput of the pump for the general settings (quantity of water).

- 0 = slow**
- 1 = medium**
- 2 = medium-fast**
- 3 = fast**

With buttons -4- and -5- you can select between 0, 1, 2, 3. Standard setting here is "1"

Between the individual steps there is a performance differential of approx.5% per step. (max. power differential 15%)

tuning pump  
0 - 3 0

## 18. Sales data

### Total counter

18.1



Press button 2. The display shows:

This counter registers all sales in the sale and free sales mode.

**This counter status cannot be reset.**



### Period counter

18.2



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.

### Money counter

18.3



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.

### Test counter

18.4



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.

### Counter for selection 1 to selection 8

18.5



Press button 1. The display shows:

This counter registers all sales in terms of number of sold drinks of button 2. This counter status can be reset by pressing button 4 for a long time.

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

### Reading the sales data

18.6

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


### 19.1

### MDB Parameter

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.

**PROGRAMMING  
MDB**

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 <table border="1"> <thead> <tr> <th>A</th><th>B</th><th>C</th><th>D</th><th>E</th><th>F</th><th>G</th><th>H</th><th>I</th><th>J</th><th>K</th><th>L</th><th>M</th><th>N</th><th>O</th><th>P</th> </tr> </thead> <tbody> <tr> <td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td> </tr> </tbody> </table> 0 = Active 1 = Blocked	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	All coins are activated  0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0																
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																																			
CH	Receipt group with display "put in counted cash"  BLOCK EURO (€) <table border="1"> <thead> <tr> <th>A</th><th>B</th><th>C</th><th>D</th><th>E</th><th>F</th><th>G</th><th>H</th><th>I</th><th>J</th><th>K</th><th>L</th><th>M</th><th>N</th><th>O</th><th>P</th> </tr> </thead> <tbody> <tr> <td>5</td><td>10</td><td>20</td><td>50</td><td>100</td><td>200</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td> </tr> <tr> <td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td> </tr> </tbody> </table> 0 = Active 1 = Blocked	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	<b>Kindly note that:</b> While using a token, activate the corresponding channel. (TK)
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																																			
MDB channel capacity	Total contents in the channels	Value in EURO																																																
	 <b>These settings are required only for coin changer.</b>																																																	

## 20. Clock

### Clock functions

20.1



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.



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.

20.3

### Switching Off



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.

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

### Cleaning

20.4



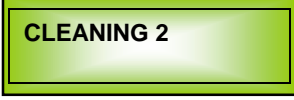
Press button 2. The display shows:  
Here you can set the switch-on time for automatic cleaning e.g. 07.00. When the clock reaches the set time automatic cleaning starts with following display:



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



The display changes and it shows:  
Now approx. 60 ml water cleaning cycle is executed via mixing bowl 1.



The display changes and it shows:  
Now approx. 60 ml water cleaning cycle is executed via mixing bowl 2.



The display changes and it shows:  
Now approx. 60 ml water cleaning cycle is executed via mixing bowl 3. After automatic cleaning, the machine switches back to the sales mode. Automatic cleaning can be deactivated again by setting the parameter to 00.00.

### Hour

20.5



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

### Day

20.6



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

### Month

20.7



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

### Year

20.8



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

## 21. Fault memory

### Error messages

#### 21.1



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

REGISTRATION  
OUT OF SERVICE

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

#### Explanation of error messages:

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

The last fault is always shown as n. 1.

n. 1            = Error message no. 1  
OFF 31B       = Cause of the fault (see section 10.5)  
07:12         = Time of the error message  
16-11-2001   = Date of the error message

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

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

On pressing button - 2 - you can retrieve all error messages up to n. 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.

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

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



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

## 22. Service counter

### Service messages

### 22.1

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



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

PROGRAMMING  
MAINTENANCE

#### WATER FILTER COUNTER

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

cnt. filter H2O  
[ 00] 0

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

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

cnt. filter H2O  
[ 00] 4800

Confirm the entry with button 8.  
The display shows:

cnt. filter H2O  
[ 4800] 4800

The counter is now active.

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 "Replace water filter" then vanishes.

cnt. filter H2O  
[ 4800] 4800

## 23. First aid– (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: as message: e.g.: OFF (Code). To delete the fault display the machine must be switched off and switched on.



Display CODE	Cause	Fault elimination	TIP
<b>SERVICE OFF 2</b>	Payment system malfunction	Incorrect payment system	
		Defective adapter cable	
		Power breakdown in data cable from coin unit to CPU	
		Coin unit defective	
<b>SERVICE OFF 5A</b>	The right EAROM memory on the CPU is defective.	Replace memory	
<b>SERVICE OFF 5B</b>	The left EAROM memory on the CPU is defective.	Replace memory	
<b>SERVICE OFF 6A</b>	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)	
<b>SERVICE OFF 6B</b>	Water loss in the boiler, although no sales took place.	Check boiler for leakage	
		Inspect pipe joints	
<b>SERVICE OFF 10</b>	Fault in EAROM memory	Load standard data	
		Replace EAROMS memory	
<b>SERVICE OFF 12</b>	Fault in the aqua portioning system	Aqua portioning system motor	
		Aqua portioning system PCB	
<b>SERVICE OFF 14</b>	Boiler level control not ok	Probe not ok (possible calcification)	
		Plug on the probe is loose	
		Tumbler door motor not ok	



## 23. First aid– (error messages)

### Error messages

### 23.1

Display-CODE	Cause	Fault elimination	TIP
<b>SERVICE OFF 16</b>	The programming key on the display unit is stuck or defective	Check the key and replace when necessary	
<b>SERVICE OFF 17</b>	Keypad malfunction	Replace keypad	
<b>SERVICE OFF 24 A</b>	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	
<b>SERVICE OFF 24 B</b>	One transistor in the power supply on the CPU is defective	Replace transistor	
		Replace CPU	
	6.3 A fuse on the CPU is blown out	CPU defective	
		One motor has a defect	
<b>SERVICE OFF 31 A</b>	Boiler is too hot	CPU defective (Triac for heating element short-circuits)	
<b>SERVICE OFF 31 B</b>	Boiler is too cold	Safety temperature limiter	
		CPU defective (Transistor defective)	
<b>SERVICE OFF 31 C</b>	Temperature sensor does not measure	Temperature sensor is defective	
		Power supply to temperature sensor interrupted	
		Shut off the function	

**23.2**

**23. First aid– (error messages)**  
**Causes of malfunctions without error messages**

**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
	One of the main fuses is 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
	Plug connection is loose	CPU is defective Check cable connection

## 24. User manual

### Cleaning instructions

24.1

#### user instruction

### 1 daily cleaning with the cleaning program

Open the door, activate the switch with the key **A** to restart the machine. Please wait till the machine is ready.



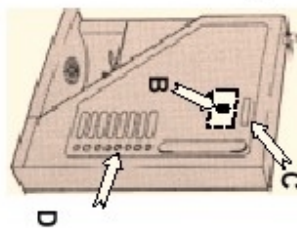
Press the program - button **B** inside the door. The display **C** shows:

1 = PROGR  
3 = FREE

2 = DATI 4 = CLEAN  
5 = MAINT.

To clean press button 4 on the keyboard **D**.

CLEANING  
SEL 1 - 2 - 3



**SEL 1:** Cleaning the mixer body 1 / coffee

**SEL 2:** Cleaning the mixer body 2 / cocoa and milkwater

**SEL 3:** Cleaning the mixer body 3 / tea water

**ATTENTION:** Put a container under the output unit.

### 2 cleaning the mixer body

to unfix the mixer body push the red bayonet lock to the left side **1**.  
Clean the mixer body, tube and the nocks under flowing warm water.



### 3 cleaning the drip tray

press the drip tray down and push it forward. Lift up the cap and clean both parts under flowing warm water. You can also use dishwasher.



### 4 cleaning and refilling the water tank

Lift the water tank up and push it forward. If there is a calcification use vinegar water to clean. Before you refill the water tank rinse it very good.

The watercartridge **F** should be changed after 1500 servings (200 L) or monthly.

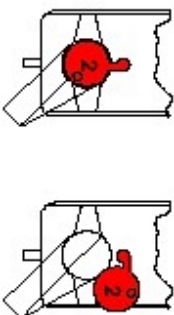


### 5 trouble shooting / error messages

If the display shows „NO WATER OFF 6A“, refill water and press button 1 on the keyboard **D**.

No Product:

- refill the product container
- set the lock **2** in the right position
- set the containers in the right position.











Ihr Service und Beratungspartner