

# S200 Easy Milc

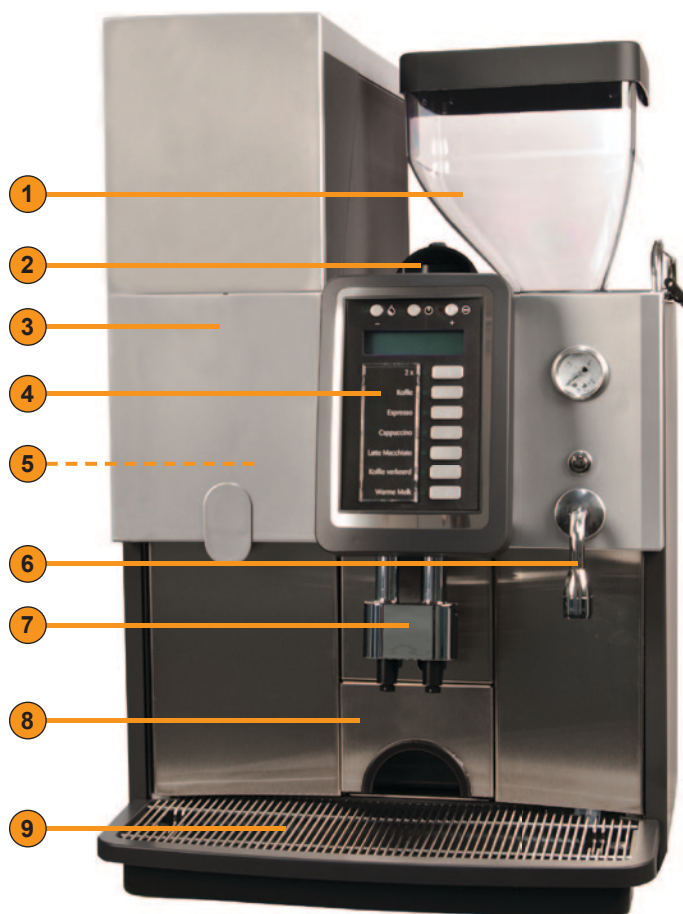
---

## Operating instructions

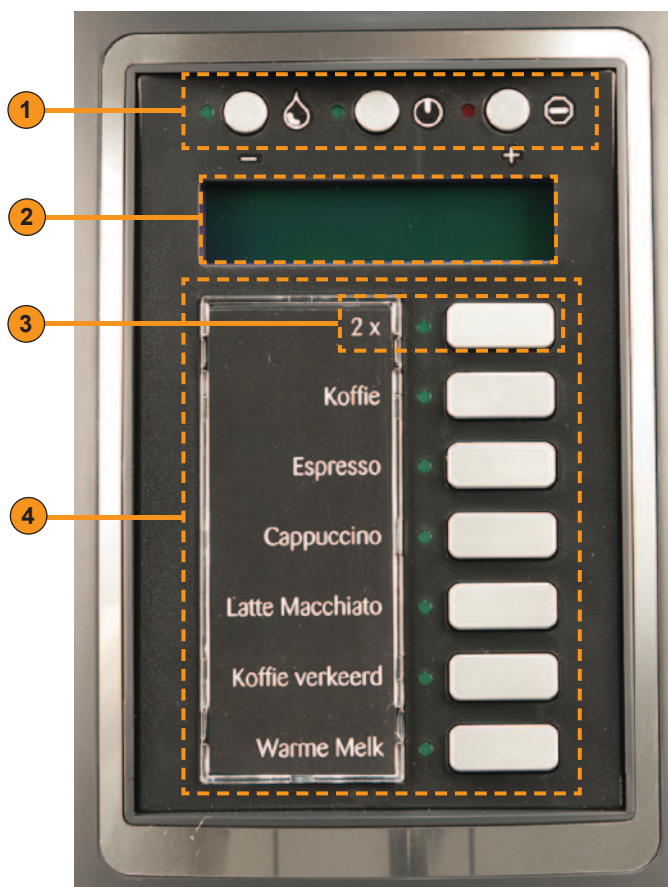
V04/03.2011



- 1 Bean hopper with lid
- 2 Manual inlet for ground coffee and cleaning tablets
- 3 Cooling unit
- 4 User panel
- 5 Card reader (not visible)
- 6 Hot water outlet
- 7 Beverage outlet
- 8 Grounds container
- 9 Drip tray with drip grid



- 1 Operating buttons, from left to right
  - Cleaning and minus button,
  - ON/OFF button
  - Stop and plus button
- 2 Display
- 3 [ 2x ] preselection field
- 4 Beverage buttons (programmable)



# S200 Easy Milc

---

## Operating instructions

V04/03.2012

---

**Publisher:**

Schaerer Ltd., P.O.Box, Allmendweg 8, CH-4528 Zuchwil

---

**Edition:**

V04/03.2012

---

**Software:**

V1.06

---

**Design and Editing:**

Schaerer Ltd., P.O.Box, Allmendweg 8, CH-4528 Zuchwil

---

**© Copyright:**

Schaerer Ltd., CH-4528 Zuchwil







---

All rights reserved, including translations into foreign languages. This publication or any part thereof must not be copied, reproduced or distributed in any form by any process or transmitted by electronic systems without the approval in writing of the publisher. All information, technical data, pictures and figures are based on the latest information available at the time of printing. Schaerer Ltd. reserves the right to make changes at any time without further notice. All pictures, figures and display messages in this manual serve only as examples. Because of the wide variety of options available, your machine may vary from the units depicted in the pictures. In the event of misunderstandings, the German (DE) document shall always be authoritative for Schaerer Ltd..




# Introduction

## Signs and symbols



### Safety

<b>DANGER!</b> Risk of electrocution!		<b>ATTENTION!</b> Danger to user and/or machine!	
<b>ATTENTION!</b> Hot fluid!		<b>ATTENTION!</b> Hot steam!	
<b>ATTENTION!</b> Hot surface!		<b>ATTENTION!</b> Risk of trapping fingers!	

### Notes

<i>Cross-reference</i>		<i>Notes &amp; tips</i>	
<i>Time information</i>			

### Environment

<b>DISPOSAL</b> The machine must be disposed of according to regulations.	
<b>Recycling</b>	

## Welcome

The S200 Easy Milc represents the next generation of fully automatic coffee makers. This machine is the result of our company's core competence and our decades of experience.



*These operating instructions provide information about the product, its operation and how to clean the S200 Easy Milc. These operating instructions cannot take every conceivable application into account. If you need additional information about something that is not discussed in sufficient detail here, please contact our customer service department.*

**CAUTION!**  
Risk of machine damage!



Before commissioning the coffee machine, the "Safety notes" chapter must first be read carefully. The manufacturer accepts no liability for potential damage if the device is not used according to the instructions in this manual.

The performance of the coffee machine depends on its correct operation and the maintenance. Carefully read the operating instructions before using the machine for the first time, and keep the instructions in an easily accessible place.

We hope you enjoy using your new S200 Easy Milc!

# Contents

<b>Introduction.....</b>	<b>4</b>	<b>Daily cleaning .....</b>	<b>19</b>
<b>Signs and symbols.....</b>	<b>4</b>	<b>Weekly cleaning .....</b>	<b>21</b>
Safety .....	4	<b>Optional accessories .....</b>	<b>23</b>
Notes.....	4	Thawing cooling Unit.....	23
Environment.....	4	<b>Mandatory cleaning .....</b>	<b>23</b>
<b>Welcome .....</b>	<b>4</b>	<b>HACCP cleaning concept .....</b>	<b>23</b>
<b>Product description.....</b>	<b>6</b>	Cleaning regulations .....	23
<b>Intended use .....</b>	<b>6</b>	Cleaning schedule .....	24
<b>Beverage types and output .....</b>	<b>6</b>	<b>Cleaning products.....</b>	<b>25</b>
<b>Scope of delivery and accessories.....</b>	<b>6</b>	Cleaning tablets .....	25
<b>Options and optional accessories .....</b>	<b>7</b>	Suma CoffeeClean.....	25
Cup warmer .....	7	<b>Maintenance.....</b>	<b>26</b>
<b>Technical data.....</b>	<b>7</b>	<b>Programming .....</b>	<b>27</b>
<b>Serial plate .....</b>	<b>7</b>	<b>Entering the programming level .....</b>	<b>27</b>
<b>Declaration of conformity .....</b>	<b>8</b>	<b>Overview of the programming level.....</b>	<b>27</b>
Manufacturer's address.....	8	<b>Setting example.....</b>	<b>27</b>
Applied standards .....	8	Setting numerical values .....	27
<b>Installation &amp; commissioning.....</b>	<b>9</b>	Setting the default value.....	27
<b>Setup conditions .....</b>	<b>9</b>	<b>Reading counters.....</b>	<b>28</b>
Location .....	9	Daily counter .....	28
Ambient conditions.....	9	Machine counter .....	28
<b>Initial use.....</b>	<b>9</b>	Service counter .....	29
<b>Power supply.....</b>	<b>10</b>	Cleaning statistics .....	30
Conditions.....	10	Error statistics .....	30
Power requirements.....	10	<b>Beverage buttons.....</b>	<b>30</b>
<b>Water connection/draining.....</b>	<b>10</b>	Beverage without milk (e.g. espresso) .....	30
Conditions.....	10	Beverages with milk (e.g. cappuccino).....	31
<b>Deinstallation and disposal.....</b>	<b>11</b>	Hot milk .....	31
<b>Operation.....</b>	<b>12</b>	Milk foam.....	31
<b>Inspection .....</b>	<b>12</b>	Hot water.....	32
<b>Filling and connecting .....</b>	<b>12</b>	<b>System settings.....</b>	<b>32</b>
Beans.....	12	Language .....	32
Water.....	12	Time format .....	32
Milk concentrate.....	12	Clock settings.....	32
<b>Switching on the coffee machine.....</b>	<b>13</b>	Date settings .....	32
<b>Dispensing.....</b>	<b>13</b>	<b>Machine timer .....</b>	<b>33</b>
Setting the beverage outlet height.....	13	<b>Troubleshooting .....</b>	<b>34</b>
Coffee beverages.....	13	<b>Malfunction with display message .....</b>	<b>34</b>
Beverages with ground coffee.....	13	<b>Malfunction without display message.....</b>	<b>35</b>
Hot water.....	14	<b>Water quality .....</b>	<b>36</b>
Milk beverages.....	14	<b>Water values .....</b>	<b>36</b>
Hot milk .....	14	<b>Filtering equipment.....</b>	<b>36</b>
Milk foam.....	14	<b>Safety notes .....</b>	<b>37</b>
<b>Dispensing options .....</b>	<b>14</b>	<b>User risks .....</b>	<b>37</b>
Preselecting beverages .....	14	<b>Risk from cleaning products.....</b>	<b>38</b>
Double beverage.....	14	Application .....	38
Beverages with MONEY card.....	15	Storage .....	38
<b>Emptying.....</b>	<b>15</b>	Disposal .....	38
Grounds container .....	15	Emergency information .....	38
Under-counter grounds disposal (option) .....	15	<b>Risk of damage to the machine.....</b>	<b>39</b>
Dirty water tank (option) .....	15	<b>Hygiene .....</b>	<b>39</b>
<b>Transport conditions .....</b>	<b>15</b>	Water.....	39
Generally applicable regulations .....	15	Coffee .....	40
<b>Display messages .....</b>	<b>16</b>	Milk concentrate.....	40
<b>Switching off.....</b>	<b>17</b>	<b>Environmental aspects &amp; and protection.....</b>	<b>40</b>
End of operation.....	17	<b>Liability .....</b>	<b>41</b>
Extended downtimes (more than 1 week) .....	17	<b>Operator responsibilities.....</b>	<b>41</b>
<b>Cleaning .....</b>	<b>18</b>	<b>Warranty and liability .....</b>	<b>41</b>
<b>Cleaning intervals .....</b>	<b>18</b>		
<b>Cleaning options .....</b>	<b>18</b>		
Automatic rinse .....	18		

## Product description

### Intended use

The S200 Easy Milc has been designed to dispense coffee beverages and milk beverages in different versions – in cups or coffee pots. The device can also dispense hot water. This unit is designed for industrial and commercial use. This device is designed for use by professionals or trained users in stores, in the light industry and in agricultural operations or for commercial use.



*Use of this equipment is subject to the "General Terms and Conditions" of Schaerer Ltd. and these operating instructions. In legal terms, any other use is not an intended use. The manufacturer accepts no liability for damage resulting from unintended use.*

**CAUTION!**  
Risk of machine  
damage!



**The S200 Easy Milc must never be used to heat and dispense any liquids other than coffee, hot water (beverages, cleaning) or milk (evaporated milk).**

### Beverage types and output

The beverage output of the machine per hour varies as follows with the settings and models:

Beverage	1-phase	3-phase
	Output/hour	Output/hour
Espresso (50 – 60 ml)	180 cups	250 cups
Coffee (120 ml)	150 cups	200 cups
Cappuccino (180 ml)	120 cups	140 cups
Latte macchiato (200 ml)	110 cups	120 cups
Hot milk	120 cups	120 cups
hot water	12 litres	20 litres

### Scope of delivery and accessories

Pieces	Designation	Article number
<b>Documentation</b>		
1	Operating instructions (EN)	022220
<b>Chip cards</b>		
1	CHEF card	063930
1	SAVE DATA card	063933
<b>Cleaning/cleaning accessories</b>		
1	Cleaning brush	067409
100	Cleaning tablets	065221
<b>General accessories</b>		
1	Flat seal	064249
1	Drain hose	067862
1)	Connection cable, CH standard	063260
1)	Connection cable, EURO standard	063261
1	Rotary handle for grinding degree setting	061977

## Options and optional accessories

### Cup warmer



The coffee machine can optionally be equipped with a cup warmer. This option can be retrofitted.

## Technical data

*Subject to technical change!*

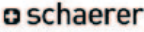

<b>Nominal power <sup>1)</sup></b>	<b>Hot water boiler <sup>2)</sup></b>
	3000 W
<b>Water capacity</b>	<b>Hot water boiler <sup>2)</sup></b>
	0.8 litre/1.2 litre
<b>Operating temperature</b> Permitted operating temperature (T max.): Minimum operating temperature (T min.): Operating temperature:	<b>Hot water boiler <sup>2)</sup></b>
	192°C 10°C 95°C
<b>Working overpressure</b> Working overpressure: Permissible working overpressure (p max): Testing overpressure:	<b>Hot water boiler <sup>2)</sup></b>
	2.5 bar 12 bar 24 bar
<b>Power connector <sup>1)</sup></b>	See Chapter "Power supply" - "Power requirements".
<b>Coffee bean hopper</b>	± 2500 g
<b>External dimensions</b> Width: Height incl. bean hopper: Depth:	460 mm 750 mm 551 mm
<b>Empty weight</b>	± 40 kg
<b>Continuous sound pressure level <sup>3)</sup></b>	< 70 dB (A)

<sup>1)</sup> For special features see serial plate, specified values refer to basic model.

<sup>2)</sup> Depending on the model.

<sup>3)</sup> The A-weighted noise level  $L_{pa}$  (slow) and  $L_{pa}$  (impulse) at the operators' workplace is below 70 dB(A) in every operating mode.

## Serial plate

 	
Designation	coffee machine
Manufacturer	Schaerer AG, Allmendweg 8 CH-4628 Zuchwil
Typ (SAG)	S200 Easy Milk
Serial No.	1000 00000
Nominal pressure	1.2 MPa (12 bar)
main pressure	0.1-0.3 Mpa, max 0.6Mpa
Electrical Ratings	5700-6900W 380-415V 3N~ 50/60Hz 3x16A (cable: 5x 1.5mm <sup>2</sup> )
Fuse on-site	
mains connection plan	4.6.8010

Machine-specific data are listed on the serial plate. The serial plate is affixed to the inside of the machine and is visible when the coffee grounds container and the lid above it are removed.



## Declaration of conformity

### Manufacturer's address

Manufacturer	Documentation manager
Schaerer Ltd. P.O.Box Allmendweg 8 CH-4528 Zuchwil, Switzerland Tel. +41 (0) 32 681 62 00 F +41 (0)32 681 64 04 info@schaerer.com www.schaerer.com	Schaerer Ltd. Hans-Ulrich Hostettler P.O.Box Allmendweg 8 CH-4528 Zuchwil, Switzerland

### Applied standards

The following harmonised standards have been applied.

Machinery Directive 2006 / 42 / EC	EMC Directive 2004 / 108 / EC
<b>Applied standards:</b> <ul style="list-style-type: none"> <li>• EN 60335-1: 2002</li> <li>• EN 60335-1:2002 / A1:2004 +A2:2006</li> <li>• EN 60335-1:2002 / A11:2004</li> <li>• EN 60335-1:2002 / A12:2006</li> <li>• EN 60335-1:2002 / A13:2008</li> <li>• EN 60335-1:2002 / A14:2010</li> <li>• EN 60335-1/FprAF:2009</li> <li>• EN 60335-2-75:2004</li> <li>• EN 60335-2-75:2004 / A1:2005</li> <li>• EN 60335-2-75:2004 / A2:2008</li> <li>• EN 60335-2-75:2004 / A11:2006</li> <li>• EN 60335-2-75:2004 / A12:2010-01 (EN60335-2-75/FprAC:2009-06)</li> <li>• IEC 60335-2-75 Ed 2.2:2009</li> <li>• EN 62233:2008</li> </ul>	<b>Applied standards:</b> <ul style="list-style-type: none"> <li>• EN 55014-1: 2006</li> <li>• EN 55014-1:2006 / A1:2009</li> <li>• CISPR 14-1 Ed 5.1: 2009</li> <li>• EN 61000-3-2:2006</li> <li>• EN 61000-3-2:2006 / A1:2009</li> <li>• EN 61000-3-2:2006 / A2:2009</li> <li>• IEC 61000-3-2 Ed 3.2: 2009</li> <li>• EN 61000-3-3:2008</li> <li>• IEC 61000-3-3:2008</li> <li>• EN 61000-6-3:2007</li> <li>• IEC 61000-6-3:2006 +A1:2010</li> <li>• EN 55014-2: 1997</li> <li>• EN 55014-2:1997 / A1:2001</li> <li>• EN 55014-2:1997 / A2:2008</li> <li>• CISPR 14-2 Ed 1.2: 2008</li> <li>• EN 61000-6-2:2005</li> <li>• IEC 61000-6-2:2005</li> </ul>

The stated manufacturer declares herewith that this machine complies with all relevant stipulations of the specified EU directives. In case of any modifications of the units that have not been approved by Schaerer, this declaration is rendered invalid. A quality management system certified by Bureau Veritas, in accordance with SN EN ISO 9001: 2008, has been used to ensure the proper adherence to the requirements.



# Installation & commissioning

## Setup conditions



*The preparatory work at the installation site must be contracted by the machine purchaser or the authorised dealer. It must be carried out by licensed installers observing all general as well as locally applicable regulations. The service technician may only establish the connection to the prepared connections. He/she is neither authorised to carry out structural installation, nor is he/she responsible for its implementation.*

### Location

The installation location must meet the following conditions:

**CAUTION!**  
Risk of machine  
damage!



- Do not set up the coffee machine on hot surfaces or close to ovens.
- Never spray the device with water or clean it with a steam cleaner.
- Install the device only in locations where it is supervised by trained personnel.
- The installation surface must be stable and level and must not become deformed under the weight of the coffee machine.
- The required supply terminals must be within one meter of the installation location according to the structural installation plans.
- Maintain the following clearances for maintenance work and operation:
  - At the top, maintain clearance for adding beans
  - On the left side, maintain a clearance of approx. ± 35 cm
  - Between the rear panel of the device and the wall, maintain a minimum clearance of 15 cm for air circulation
- Observe and comply with all applicable local kitchen regulations.

### Ambient conditions

The installation location requires the following climatic conditions:

**CAUTION!**  
Risk of machine  
damage!



- The machine is not suitable for outdoor use. Do not expose the coffee machine to outside weather conditions such as rain, snow, frost, etc.
- Ambient temperature of 5 °C to 32 °C (41 °F to 90 °F)
- Relative humidity maximum 80% rh
- The coffee machine is designed for indoor use only.
- Protect the device from frost. If the coffee machine has been exposed to temperatures below freezing, contact a customer service partner authorised by the manufacturer before using the machine.

## Initial use

The coffee machine must be installed and commissioned by a qualified service technician approved by the manufacturer.

**DANGER!**  
Risk of electrocu-  
tion!



- **Danger of short circuit or from damage to electrical components due to condensation water!**  
If the coffee machine (and/or accessories) are transported at temperatures below 10°C, the coffee machine (and/or accessories) must be stored for 3 hours at room temperature before the coffee machine (and/or accessories) are connected to the mains and switched on.
- **Danger of electric shock!**  
Always use the new hose set (fresh water/outlet hose) provided with the machine.

## Power supply

### Conditions

The electrical power supply must be connected in accordance with the applicable regulations (VDE 0100) and the regulations of the country of installation. Type of power cable at least H05 RN-F. The voltage specified on the serial plate must match the supply voltage at the installation location.

**DANGER!**  
Risk of electrocu-  
tion!



**Danger of electric shock! The following instructions absolutely must be complied with:**

- The phase must be fused at the ampere value specified on the serial plate.
- It must be possible to disconnect the device from the mains power supply at all poles.
- Never operate a device with a damaged power cord. Have a defective power cord or plug replaced immediately by a qualified service technician.
- Schaerer Ltd. recommends against using an extension cable. If, despite this, an extension cable is used (minimum cross-section: 1.5 mm<sup>2</sup>), observe the manufacturer data for the cable (operating instructions) and the locally applicable regulations.
- The mains cables must be installed in such a way that they do not present a tripping hazard. Do not pull the cords over corners or sharp edges, pinch them between objects or allow them to hang loosely in a room. Do not place cables over hot objects, and protect them from oil and aggressive cleaning products.
- Never lift or pull the device by the power cord. Never pull the plug out of the socket by its cord. Never touch the power cord or plug with wet hands! Never insert a wet plug into a power socket.

### Power requirements

<b>Mains voltage tolerance</b>	400 V (+10% / -10%), mains break < 50 ms no functional interruption
<b>Protection</b>	IP 50

Model	Power requirements			Fuse (installa- tion site)	Connecting cable conductor cross-section
Europe normal power	230 V AC	50/60 Hz	3000 W	1 x 16 A	3x 1.5 mm <sup>2</sup>
Europe high power	400 V AC	50/60 Hz	6000 W	3 x 16 A	5x 1.5 mm <sup>2</sup>

## Water connection/draining

### Conditions

The water supply connection must be made in accordance with the applicable requirements and the regulations of the respective country. If the machine is connected to a newly installed water line, the pipe and the inlet hose must be thoroughly flushed to prevent particles from entering the machine. The coffee machine must be connected to an installed drinking water line with a shut-off valve. The machine is connected to the pressure reducing valve on the main water valve (set to 0.3 MPa (3 bar)) using the mounted pressure hose and the G 3/8" screw connection. If the machine is connected to a drain, the included temperature-resistant drain hose must be connected to the drip tray and the siphon. It must be firmly attached to the drain and slanted at a downward angle (so that the water can flow downward).

**CAUTION!**  
Risk of machine  
damage!



**Always use the new hose set (fresh water/outlet hose) provided with the machine! Do not use old hose sets.**

<b>Water supply</b>	G 3/8" tube connection (inside thread) with main tap and dirt filter provided by customer, max. water temperature 30 °C.	
<b>Flow speed</b>	Min. 2 l/min.	
<b>Water pressure</b>	<b>Recommended</b>	<b>Maximum</b>
	0.1-0.3 MPa (1-3 bar)	0.6 MPa (6 bar)
<b>Water inlet temperature</b>	<b>Minimum</b>	<b>Maximum</b>
	10 °C	30 °C
<b>Water quality</b>	The water must be free of contaminants and the chlorine content may not exceed 100 mg per litre. Do not connect the machine to pure reverse osmosis water or other aggressive types of water. The carbonate hardness must not exceed 4 – 6°dKH (German carbonate hardness) or 7 – 10°fKH (French carbonate hardness), and the total hardness value must always be higher than the carbonate hardness. The minimum carbonate hardness is 4°dKH or 7°fKH. The pH value must be between 6.5 – 7.	
<b>Water drainage line</b>	Hose at least Ø 19 mm, minimum slope 2 cm/m	



*Schaerer Ltd. recommends setting the pressure reducing valve to 0.3 MPa (3 bar).*

## Deinstallation and disposal



*Contact a qualified customer service representative approved by the manufacturer.*

# Operation

## Inspection

**CAUTION!**  
Risk of machine  
damage!



Please check the following before taking the coffee machine into service:

- The fresh water supply is open/the drainage hose is routed correctly.
- The coffee bean hopper(s) is/are full (see below) and the lock is open.
- The coffee grounds container is empty and inserted correctly.
- The coffee machine is connected to the mains power supply.

## Filling and connecting

**CAUTION!**  
User at risk!



### Beans

**The bean hoppers must not be filled with more than 2500 g of beans. Never fill the bean hopper with anything other than roasted beans. Never reach into the bean hopper(s) while the unit is switched on.**

- ▶ Open bean hopper lid.
- ▶ Fill with beans.
- ▶ Close bean hopper lid.

### Water

**CAUTION!**  
Risk of machine  
damage!



**Mains water supply:**

**Ensure that the mains water tap is open. The machine may be damaged if the pump runs dry.**

#### External drinking water (option)

- ▶ Correctly connect the drinking water tank to the machine.
- ▶ Fill the drinking water tank daily with fresh drinking water.

#### External dirty water tank (option)

- ▶ Correctly connect the dirty water tank to the machine.
- ▶ Empty the dirty water tank daily and clean thoroughly with a household cleaner.

### Milk concentrate

**CAUTION!**  
Health risk!



**Always use a fresh package of milk concentrate! The opened package must not be in use for more than seven (7) days. After this period, the package must be discarded.**

- ▶ Raise the door of the cooling unit.
- ▶ Note the current date in the field provided for this purpose on the milk concentrate package.
- ▶ Prepare the milk concentrate package as instructed on the package.
- ▶ Insert the dosing system of the milk concentrate package into the opening of the cooling unit from above.
- ▶ Close the door of the cooling unit.



*When the milk concentrate package is empty, a message appears on the display.*

## Switching on the coffee machine

- ▶ Switch on the coffee machine with the [ON/OFF] button.
  - ☑ The coffee machine starts the heating process.

**Option: "On/off with CHEF card" is activated:**

- ▶ Insert the CHEF card.
  - ☑ The coffee machine switches on.
  - ☑ The coffee machine starts the heating process.

## Dispensing

**CAUTION!**  
Hot fluid!



All beverages dispensed from the machine are hot. During beverage dispensing never reach under the beverage outlet or into the machine.

### Setting the beverage outlet height

**CAUTION!**  
Hot surface!



Hot surfaces can cause burns.  
Exercise care when moving the beverage outlet.

- ▶ Place a cup under the beverage outlet.
- ▶ Grasp the beverage outlet from the front and slide it into the correct position (see figure).
- ▶ Remove the cup after the beverage has been dispensed.



### Coffee beverages

- ▶ Place a cup under the beverage outlet.
- ▶ Slide the beverage outlet to the right position.
- ▶ Press the desired beverage field.
- ▶ Remove the cup after the beverage has been dispensed.

**CAUTION!**  
Hot fluid!



### Beverages with ground coffee



*The manual inlet for ground coffee and cleaning tablets is located between the bean hopper and the cooling unit.*

**CAUTION!**  
Risk of machine damage!



**Never fill instant coffee into the manual inlet. Add no more than two levelled measuring spoons of ground coffee.**

- ▶ Place a cup under the beverage outlet.
- ▶ Slide the beverage outlet to the right position.
- ▶ Open the manual inlet or press the [ DECAF ] button.
  - ☑ The following message appears on the display: "select product/decaffeinated".
  - ☑ The beverages that are still available for selection are illuminated on the operating panel.
- ▶ Press the required beverage button.
- ▶ Add the ground coffee within 15 seconds.
- ▶ Close the manual inlet.
- ▶ Remove the cup after the beverage has been dispensed.



### Hot water

**CAUTION!**  
Hot fluid!



- ▶ Place a cup under the hot water outlet.
- ▶ Press the [ **Hot water** ] button.
- ▶ Remove the cup after the beverage has been dispensed.

### Milk beverages

**CAUTION!**  
Hot fluid!



- ▶ Place a cup under the beverage outlet.
- ▶ Slide the beverage outlet to the right position.
- ▶ Press the desired beverage button.
- ▶ Remove the cup after the beverage has been dispensed.

### Hot milk

**CAUTION!**  
Hot fluid!



- ▶ Place a cup under the beverage outlet.
- ▶ Slide the beverage outlet to the right position.
- ▶ Press the [ **Hot milk** ] button.
- ▶ Remove the cup after the beverage has been dispensed.

### Milk foam

**CAUTION!**  
Hot fluid!



- ▶ Place a cup under the beverage outlet.
- ▶ Slide the beverage outlet to the right position.
- ▶ Press the [ **Milk foam** ] button.
- ▶ Remove the cup after the beverage has been dispensed.

## Dispensing options

### Preselecting beverages



*Provided that the machine has been appropriately configured, several different beverages can be selected one after another. The coffee machine dispenses the selected beverages in the order given.*

To clear preselected beverages and cancel the current beverage output:

- ▶ Press the [STOP] button to clear the preselection.
- ▶ Press the [STOP] button again to stop dispensing.

### Double beverage



*If configured accordingly, two beverages can be dispensed at once by pressing the [ **2x** ] field.*

- ▶ Place cups under the beverage outlet.
- ▶ Slide the beverage outlet to the right position.
- ▶ Press the [ **2x** ] button.
- ▶ Press the desired beverage field.
- ▶ Remove the cups after the beverages have been dispensed.

## Beverages with MONEY card



*If internal accounting is enabled, beverages can only be obtained with the MONEY card.*

- ▶ Place a cup under the beverage outlet.
- ▶ Slide the beverage outlet to the right position.
- ▶ Insert the MONEY card.
  - ☒ The available amount appears on the display.
- ▶ Press the desired beverage field.
- ▶ Remove the cup after the beverage has been dispensed.
- ▶ Remove the MONEY card.

## Emptying

### Grounds container



*Coffee grounds land in the grounds container. Beverage dispensing is blocked as long as the grounds container is not inserted.*

- ▶ Slide the beverage outlet to the highest position.
- ▶ Remove the grounds container.
- ▶ Empty the grounds container and reinsert it.
  - ☒ Beverages can again be dispensed.

### Under-counter grounds disposal (option)



*A prompt to empty the under counter grounds disposal does not appear on the display. Check at regular intervals.*

- ▶ Open the counter door.
- ▶ Remove and empty the under counter grounds container.
- ▶ Reinsert the under counter grounds container.
- ▶ Close the counter door.

### Dirty water tank (option)

- ▶ Remove dirty water tank.
- ▶ Empty the dirty water tank and clean thoroughly with a household cleaner.
- ▶ Replace dirty water tank.

## Transport conditions

### Generally applicable regulations

- ▶ Before moving the coffee machine, disconnect the drinking water supply, the power supply and the dirty water outlet.
- ▶ Before moving the coffee machine, check the floor for obstacles and uneven areas.



**CAUTION!**  
Risk of machine  
damage!



**Improper transport of the machine may result in machine damage.**  
**Adhere to the following instructions when moving machines on a cart:**

- For safety reasons, the cart must be pulled and not pushed when moving the coffee machine.
- Only pull on the cart and never on the machine.
- The cart is not intended for transporting cargo.



*The manufacturer cannot be held liable for any damage resulting from unintended use of the cart or from failure to follow the operating instructions.*

## Display messages

Message	Cause	What to do
<b>Grounds container missing</b>	<ul style="list-style-type: none"> <li>• The grounds container was pulled out (cleaning programme, emptying, etc.).</li> <li>• The end switch is defective.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Insert the grounds container.</li> <li>▶ If the message persists: contact your service partner.</li> </ul>
<b>Empty grounds container</b>	<ul style="list-style-type: none"> <li>• The grounds container is full.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Empty the grounds container.</li> </ul>
<b>Cleaning programme</b>	This message appears on the display when daily or weekly cleaning is pending.	<ul style="list-style-type: none"> <li>▶ Perform the daily or weekly cleaning (see cleaning card).</li> </ul>
<b>Grinder no beans</b>	Appears when the bean container is empty or when a coffee bean has become stuck.	<ul style="list-style-type: none"> <li>▶ Fill up the bean hopper with beans (max. 1000 g per container) and confirm message.</li> </ul>
<b>grinder blocked</b>	An object (such as a stone) has become jammed in the grinder.	<ul style="list-style-type: none"> <li>▶ Check the grinder for clogging and remove the remaining beans with a vacuum cleaner if necessary.</li> </ul>
<b>heating coffee water heating hot water</b>	The temperature is 10 °C below the programmed temperature.	<ul style="list-style-type: none"> <li>▶ Wait until the target temperature has been reached.</li> <li>▶ If the message persists: contact your service partner.</li> </ul>
<b>Filter change</b>	The programmed water volume (litres/month) has passed through the filter.	<ul style="list-style-type: none"> <li>▶ Contact service partner.</li> </ul>
<b>Service request</b>	The programmed number of beverages (cups / month) has been reached. Service is required.	<ul style="list-style-type: none"> <li>▶ Contact service partner.</li> </ul>
<b>Drinking water tank empty</b>	<ul style="list-style-type: none"> <li>• The drinking water tank is empty.</li> <li>• The float switch is defective.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Fill the drinking water tank and place it beneath the counter.</li> <li>▶ If the message persists: contact your service partner.</li> </ul>
<b>Waste water full</b>	<ul style="list-style-type: none"> <li>• Dirty water tank is empty.</li> <li>• The float switch is defective.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Empty the dirty water tank and place it under the counter.</li> <li>▶ If the message persists: contact your service partner.</li> </ul>
<b>decaf inlet open</b>	<ul style="list-style-type: none"> <li>• The [ <b>Decaf</b> ] field was pressed to dispense a decaffeinated beverage.</li> <li>• The manual inlet was opened.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Add ground coffee to dispense a decaffeinated beverage.</li> <li>▶ Close the manual inlet.</li> <li>▶ If the message persists: contact your service partner.</li> </ul>
<b>milk empty</b>	The milk concentrate is empty.	<ul style="list-style-type: none"> <li>▶ Replace the empty milk concentrate package with a new package.</li> </ul>

## Switching off



*If the coffee machine is not used for an extended period of time (e.g. at night), the coffee machine can be switched to stand-by mode. In this mode, the boilers are not kept at operating temperature, and no beverages can be dispensed. If the machine is equipped with a cooling unit, it continues to be cooled.*

### End of operation

At the end of operation, proceed as follows:

- ▶ Carry out the daily cleaning routine (refer to the "Cleaning" chapter).
- ▶ Press the [ON/OFF] button.
  - ☒ The machine switches to "Stand by".

#### Mains water supply:

- ▶ Close the main water valve of the mains water supply.

#### External drinking and dirty water tanks (option):

- ▶ Empty the drinking water tank and thoroughly rinse with fresh drinking water.
- ▶ Empty the dirty water tank and clean thoroughly with a household cleaner.

#### Milk concentrate/cooling unit:

- ▶ Remove and dispose of the milk concentrate package.
- ▶ Clean the inside of the cooling unit.



*See also Chapter "Cleaning" - "Daily cleaning".*

**CAUTION!**  
Risk of machine  
damage!



**When taking the device back into service, the drinking water supply must be opened before the device is switched on.**

### Extended downtimes (more than 1 week)



*During extended downtimes, such as during holidays, the machine must be taken out of operation.*

- ▶ Perform all steps described in the chapter entitled "End of operation".

If the machine will be exposed to subzero temperatures, the boilers must be emptied first.

- ▶ Please contact your service partner.

**CAUTION!**  
Risk of machine  
damage!



**The boilers can be destroyed by freezing water as it expands. In rooms where the temperature can fall below zero, the boilers must be emptied.**



*When taking the device back into service, run the daily cleaning first.*

## Cleaning

### Cleaning intervals

Daily	Weekly	As needed	As instructed	Optional	
X					Cleaning programme
X					Beverage outlet
	X				Water jet mixer
X					Grounds container
X					drip tray
X					Outer surfaces
X					Brewing chamber
X					Cooling unit
	X	X			Bean hopper
X				O	Drinking water tank (internal/external)
X				O	Dirty water tank

### Cleaning options



#### Automatic rinse

*The automatic rinse is self-triggering (programmed).*

## Daily cleaning



See also Chapter "Safety notes" and "Cleaning" in the operating instructions.


**CAUTION!**  
User at risk!



There is a risk of scalding in the dispensing area of beverages, hot water and steam. During dispensing or cleaning, never reach under the dispensing positions.

### Automatic coffee system cleaning



- ▶ Press the [  ] button and hold (± 4 s).
  - ☑ "empty gr. container" appears on the display.
- ▶ Pull out the grounds container within five seconds and clean it.
- ▶ Clean the brewing chamber with the cleaning brush.
- ▶ Reinsert the grounds container.
  - ☑ "Cleaning program - insert tablet" appears on the display.



- ▶ Open the manual inlet and drop in cleaning tablet.
- ▶ Close the manual inlet.
  - ☑ The coffee system cleaning starts and the duration is shown on the display.

### Clean drip grid, grounds container, outer surfaces and external tanks



- ▶ Clean the drip grid under warm, running water.
- ▶ Clean the drip tray with a moist paper towel.
- ▶ Reinsert the drip grid.



- ▶ Take out the grounds container.
- ▶ Thoroughly clean with water and a household cleaning product.
- ▶ Then rinse with clear water and dry with a clean cloth.
- ▶ Reinsert the grounds container.



- ▶ Clean the outer surfaces of the machine with a moist paper towel.



**Do not use any abrasives.**

**4 OPTION****Clean the external drinking and dirty water tanks (option):**

- Empty the drinking water tank daily and thoroughly rinse with fresh drinking water.



*Wait until the next day to add fresh drinking water.*

- Empty the dirty water tank daily and clean thoroughly with a household cleaner.

## Weekly cleaning



See also Chapter "Safety notes" and "Cleaning" in the operating instructions.

**CAUTION!**  
User at risk!



There is a risk of scalding in the dispensing area of beverages, hot water and steam. During dispensing or cleaning, never reach under the dispensing positions.


### Clean the milk system



A message appears on the display when weekly cleaning is pending.



*Cleaning must be performed within 36 hours after the message first appears. Otherwise mandatory cleaning takes effect and the machine is blocked.*

- ▶ Press the [  ] button and hold (± 4 s).
  - ☑ "Cleaning program - remove milk pack" appears on the display.



- ▶ Open the door of the cooling unit upward and let it engage.
- ▶ Remove the milk pack.
  - ☑ "remove & clean mixer" appears on the display.



- ▶ Press the lever on the back of the beverage outlet.
  - ☑ The foamer head detaches from the holder.



- ▶ Open the left door.
- ▶ Pull the water jet mixer out toward the front.
- ▶ Take the hose out of the hose guide.
- ▶ Remove the water jet mixer and foamer head in one piece.



- ▶ Only use "Suma CoffeeClean" cleaning products for cleaning.
- ▶ Mix the cleaning product and warm water in a large container.



*The following information can be found on the label of the cleaning product bottle:*

- Mixing ratio of the cleaning product to water
- Container size
- Cleaning duration



- ▶ Detach the foamer head from the other parts and rinse under running water.
- ▶ Leave the remaining parts mounted (see Fig. A).
- ▶ Submerge all parts together in the bath of warm water and cleaning product (see Fig. B).
- ▶ Rinse the parts under running water after removing them from the cleaning bath.



- ▶ Remove the seal and clean it under running water.
- ▶ Clean the water jet mixer with a brush (see Fig.).
  - ☑ "clean cool box- replace mixer" appears on the display.



- ▶ Clean the opening in the bottom of the cooling unit with a brush (see Fig.).
- ▶ Wipe out the inside of the cooling unit with a moist cloth.



- ▶ Reinstall all parts in reverse order (steps 5 + 4). Note the following:
  - When routing the hose, ensure that the house opening is in the right position (see Fig.).
  - The foamer head must engage audibly when mounted on the beverage outlet.



- ▶ Push the water jet mixer back into the holder.
  - ☑ "replace milk pack" appears on the display.
- ▶ Insert the milk pack.
  - ☑ "empty gr. container" appears on the display.



- ▶ Empty the grounds container, clean it and reinstall it.
  - ☑ "Cleaning program - insert tablet" appears on the display.
- ▶ Open the manual inlet and drop in cleaning tablet.
- ▶ Close the manual inlet.
  - ☑ The coffee system cleaning starts and the duration is shown on the display.



- ▶ Slide the locking mechanism on the bean hopper upward.
- ▶ Lift off the bean hopper and empty it.
- ▶ Clean the hopper under warm, running water. Remove stubborn residue with a cleaning brush.
- ▶ Mount the hopper again and open the locking mechanism.



**Do not use abrasive cleaning products. Never clean the bean hopper in the dishwasher.**

### Cleaning the bean hopper



## Optional accessories

### Thawing cooling Unit

The internal cooling unit defrosts automatically. User actions are not required. The exact point in time can be set by the service technician.



*For more information or for setting the point in time when the machine defrosts, contact your service partner.*

## Mandatory cleaning



*If mandatory cleaning is enabled, the machine is automatically blocked when the set cleaning period is reached.*

## HACCP cleaning concept

### Cleaning regulations

When installed, maintained, cared for and cleaned properly, Schaefer Ltd. coffee machines fulfil HACCP regulations.

**CAUTION!**  
User at risk!



**If the coffee machine is not cared for and cleaned properly, the dispensing of milk beverages can present a food hygiene risk.**

#### Note and adhere to the following instructions:

- Wear safety gloves during cleaning.
- Wash your hands thoroughly before and after cleaning.
- Clean the coffee machine daily after beverage dispensing has ended.
- Never put cleaning products in the milk container.
- Never put cleaning products in the drinking water tank (internal/external).
- Never mix cleaning products.
- Store cleaning products separately from coffee, milk and coffee machine powder.
- Do not use any abrasive products, brushes or cleaning tools made of metal.
- Do not touch parts that come into contact with beverages after cleaning.
- Read and follow the dosing and safety instructions specified on the cleaning product.
- For daily and weekly cleaning, proceed as described in the operating instructions and on the cleaning cards.



*For a better overview of the cleaning steps that are required or that have already been performed, use the cleaning schedule in this chapter.*

## Cleaning schedule

January ☐  
 February ☐  
 March ☐  
 April ☐  
 May ☐  
 June ☐  
 July ☐  
 August ☐  
 September ☐  
 October ☐  
 November ☐  
 December ☐

Year: \_\_\_\_\_



### Legends for the list:

- Daily cleaning: see "Daily cleaning" cleaning card
- Weekly cleaning: see "Weekly cleaning" cleaning card
- Beverage outlet: cleaned according to cleaning card
- Cooling unit cleaned: cleaned according to cleaning card
- Outside of machine cleaned: cleaned according to cleaning card

*Please copy the HACCP cleaning concept and keep it/hang it up close to the machine!*

Date	Cleaning(s) carried out:					Signature
	Time					
	Daily cleaning	Weekly cleaning	Beverage outlet	Cooling unit cleaned	Outside of machine cleaned	
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						
21.						
22.						
23.						
24.						
25.						
26.						
27.						
28.						
29.						
30.						
31.						

## Cleaning products



*Before using the cleaning products, carefully read the information on the packaging.*

### Cleaning tablets

Information	
Application	Daily cleaning of the coffee system
Purpose of cleaning	Removal of grease residue in the coffee system
Application interval	7 times a week
State and odour	See material safety data sheet.

### Suma CoffeeClean

Information	
Application	Weekly cleaning of the milk system
Purpose of cleaning	Removal of deposits on all parts of the milk system
Application interval	Once a week
State and odour	–

## Maintenance

The coffee machine does not require regular maintenance. The maintenance schedule depends on multiple factors, especially the degree to which the machine is used.

When maintenance is due, the machine indicates this on the display. The machine can continue to be operated normally.

- Notify your service partner that maintenance is due.

**CAUTION!**  
Risk of machine  
damage!



**Failure to perform a required maintenance in due time may lead to wear and reliable operation is no longer assured.**

**Inform the service partner as soon as possible after the maintenance message appears.**

# Programming

## Entering the programming level



CHEF card, old design



CHEF card, new design

To enter the programming level, proceed as follows:

- ▶ Insert the CHEF card into the card reader.
  - ☒ The programming level is shown on the display.

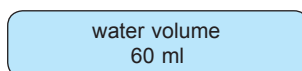
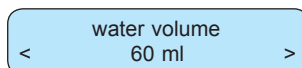
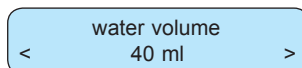
## Overview of the programming level

The following menus can be set or viewed with the CHEF card:

- Reading counters
- Beverage buttons
- System settings
- Machine timer

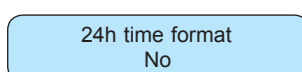
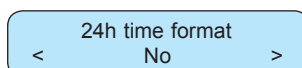
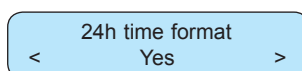
## Setting example

### Setting numerical values



- ▶ Select the desired parameter with the [] button.
  - ☒ The characters "<" and ">" appear at the beginning and end of the bottom display line.
  - ☒ The value can now be set.
- ▶ Set the desired value via the [] or [] button.
- ▶ Confirm the new value with the [] button.
  - ☒ The characters "<" and ">" disappear in the bottom display line.




### Setting the default value



- ▶ Select the desired parameter with the [] button.
  - ☒ The characters "<" and ">" appear at the beginning and end of the bottom display line.
  - ☒ The option can now be selected.
- ▶ Select the desired option via the [] or [] button.
- ▶ Confirm the new value with the [] button.
  - ☒ The characters "<" and ">" disappear in the bottom display line.

## Reading counters

### Daily counter

Parameters	Parameter description	Setting range		Notes
		Range	Standard	
dispensed products (all) XXX	All beverages dispensed by the machine are displayed.	-	-	To clear the counter: see below.
coffee products XXX	All coffee beverages dispensed by the machine are displayed.	-	-	To clear the counter: see below.
cappuccino/milkcoff. XXX	All cappuccino and milk coffee beverages dispensed by the machine are displayed	-	-	To clear the counter: see below.
milk/milk foam XXX	All milk beverages and foam dispensed by the machine are displayed	-	-	To clear the counter: see below.
decaffeinated XXX	All decaffeinated beverages dispensed by the machine are displayed.	-	-	To clear the counter: see below.
double products (2x) XXX	All double beverages dispensed by the machine are displayed.	-	-	To clear the counter: see below.
hot water XXX	All hot water beverages dispensed by the machine are displayed.	-	-	To clear the counter: see below.
products (buttons) XXX	The number of beverages dispensed for each button can be displayed.	-	-	To clear the counter: see below.
credit counter XXX	The credit statistics are displayed.	-	-	Only displayed if a payment system is enabled.
token counter XXX	The token statistics are displayed.	-	-	Only displayed if a payment system is enabled.
clear delay counters? execute with 'on'	<b>To delete the counters:</b> ► Press [  ].  <b>Return without deleting:</b> ► Press the [  ] or [  ] button.	-	-	The deleted data cannot be restored.

### Machine counter

Parameters	Parameter description	Setting range		Notes
		Range	Standard	
dispensed products (all) XXX	All beverages dispensed by the machine are displayed.	-	-	Cannot be deleted.
coffee products XXX	All coffee beverages dispensed by the machine are displayed.	-	-	Cannot be deleted.
cappu./milk coffee XXX	All cappuccino and milk coffee beverages dispensed by the machine are displayed	-	-	Cannot be deleted.

Parameters	Parameter description	Setting range		Notes
		Range	Standard	
milk/milk foam XXX	All milk beverages and foam dispensed by the machine are displayed	-	-	Cannot be deleted.
decaffeinated XXX	All decaffeinated beverages dispensed by the machine are displayed.	-	-	Cannot be deleted.
double products XXX	All double beverages dispensed by the machine are displayed.	-	-	Cannot be deleted.
hot water XXX	All hot water beverages dispensed by the machine are displayed.	-	-	Cannot be deleted.
amount of cleanings XXX	All cleaning cycles on the machine are displayed.	-	-	Cannot be deleted.
amount of rinses XXX	All rinsing cycles on the machine are displayed.	-	-	Cannot be deleted.
amount of milk clean XXX	All milk cleaning cycles on the machine are displayed.	-	-	Cannot be deleted.
brew cycles XXX	All brewing cycles of the machine are displayed.	-	-	Cannot be deleted.
grind time (total) XXX	The grind quantity of the grinder is displayed	-	-	Cannot be deleted.
runtime w-pump [h] XXX	The run time of the water pump is displayed	-	-	Cannot be deleted.
water volume XXX	The complete water quantity (pump) is displayed.	-	-	Cannot be deleted.

### Service counter

Parameters	Parameter description	Setting range		Notes
		Range	Standard	
brew cycles brewer XXX	The number of cycles of the brewing unit is displayed.	-	-	Can only be reset by a service technician.
brew cycles motor XXX	The number of cycles of the brewing motor is displayed.	-	-	Can only be reset by a service technician.
time grinder motor I [h] XXX	The grinding time (complete) of the grinder is displayed.	-	-	Can only be reset by a service technician.
relay coffee XXX	All circuits of the coffee relay are displayed	-	-	Can only be reset by a service technician.
cooling unit relay XXX	All circuits of the coffee relay are displayed	-	-	Can only be reset by a service technician.
relay hot water XXX	All circuits of the hot water relay are displayed	-	-	Can only be reset by a service technician.



Parameters	Parameter description	Setting range		Notes
		Range	Standard	
grind qty grinder XXX	The grinding quantity of the grinder is displayed (in grams).	-	-	Can only be reset by a service technician.
runtime cooling unit [h] XXX	The operating time of the cooling unit is displayed (in hours).	-	-	Can only be reset by a service technician.
runtime w-pump [h] XXX	The operating time of the water pump is displayed (in hours).	-	-	Can only be reset by a service technician.
last filter change xx.xx.xxxx	The date of the last filter change is displayed.	-	-	Can only be reset by a service technician.
last service xx.xx.xxxx	The date of the last service is displayed.	-	-	Can only be reset by a service technician.

### Cleaning statistics

Parameters	Parameter description	Setting range		Notes
		Range	Standard	
cleaning statistics < xx.xx.xxxx 13:00 >	All cleaning cycles on the machine are displayed.	-	-	The cleaning statistics cannot be deleted.

### Error statistics

Parameters	Parameter description	Setting range		Notes
		Range	Standard	
water flow error < xx.xx.xxxx 13:00 >	All errors registered on the machine are displayed.	-	-	The error statistics cannot be deleted.

## Beverage buttons

### Beverage without milk (e.g. espresso)

Parameters	Parameter description	Setting range		Notes
		Range	Standard	
grind quantity 9.0 g.	Set the desired grind quantity.	0.0-16.0 g.	9.0 g.	Do not set more than 14.0 grams as the brewing chamber will otherwise overflow.
water volume 40 ml	Set the desired water quantity (filling quantity of the cup).	20 – 999 ml	Espresso: 40 ml Coffee: 60 ml	See "Setting example" - "Setting numerical values", page 27.

## Beverages with milk (e.g. cappuccino)

Parameters	Parameter description	Setting range		Notes
		Range	Standard	
hot milk time 0.0 s.	Set the desired quantity of hot milk.	0.0 - 40.0 s.	-	See "Setting example" - "Setting numerical values", page 27.
foam time 10.0 s.	Set the desired foam quantity.	0.0 - 40.0 s.	10.0 s.	See "Setting example" - "Setting numerical values", page 27.
milk lead time 0.2 s.	Define the milk flow time.	0.0 - 2.0 s.	0.2 s.	The milk pump starts earlier than the coffee dispensing procedure by the amount of time set.
flush water quantity 1.0 s.	Define the flush water quantity	0.0 - 9.9 s.	1.0 s.	Quantity of water with which the system is rinsed after a beverage is dispensed.
grind quantity 90. g.	Set the desired grind quantity.	0.0-16.0 g.	9.0 g.	Do not set more than 14.0 grams as the brewing chamber will otherwise overflow.
water volume 40 ml	Set the desired water quantity (filling quantity of the cup).		Espresso: 40 ml Coffee: 60 ml	See "Setting example" - "Setting numerical values", page 27.

## Hot milk

Parameters	Parameter description	Setting range		Notes
		Range	Standard	
hot milk time 0.0 s.	Set the desired quantity of hot milk.	0.0 - 40.0 s.	15.0 s.	See "Setting example" - "Setting numerical values", page 27.
flush water quantity 1.0 s.	Define the flush water quantity	0.0 - 9.9 s.	1.0 s.	Quantity of water with which the system is rinsed after a beverage is dispensed.

## Milk foam

Parameters	Parameter description	Setting range		Notes
		Range	Standard	
foam time 10.0 s.	Set the desired foam quantity.	0.0 - 40.0 s.	10.0 s.	See "Setting example" - "Setting numerical values", page 27.
milk flow 0.2 s.	Define the milk flow time.	0.0 - 2.0 s.	0.2 s.	The milk pump starts earlier than the coffee dispensing procedure by the amount of time set.
flush water quantity 1.0 s.	Define the flush water quantity	0.0 - 9.9 s.	1.0 s.	Quantity of water with which the system is rinsed after a beverage is dispensed.

## Hot water

Parameters	Parameter description	Setting range		Notes
		Range	Standard	
water volume 40 ml	Set the desired water quantity (filling quantity of the cup).	20 – 999 ml	-	See "Setting example" - "Setting numerical values", page 27.

## System settings

### Language

Parameters	Parameter description	Setting range		Notes
		Range	Standard	
Language German	Set the desired water quantity (filling quantity of the cup).	DE, EN, FR, NL, ES, PL, DA, JP	-	See "Setting example" - "Setting the default value", page 27.

### Time format

Parameters	Parameter description	Setting range		Notes
		Range	Standard	
24h time format Yes	Enables or disables the 24h time format.	Yes No	Yes	See "Setting example" - "Setting the default value", page 27.

### Clock settings

Parameters	Parameter description	Setting range		Notes
		Range	Standard	
Set clock 15: 00	Sets the current time.	-	-	See "Setting example" - "Setting numerical values", page 27.

### Date settings

Parameters	Parameter description	Setting range		Notes
		Range	Standard	
Date settings 01.01.2011	Sets the current date.	-	-	See "Setting example" - "Setting numerical values", page 27.

## Machine timer

Parameters	Parameter description	Setting range		Notes
		Range	Standard	
Machine timer Monday	Set the desired day of the machine timer.	Mo, Tu, We, Th, Fr, Sa, Su	-	Repeat the process for all other desired days.
timer on Yes	Enable or disable automatic switch-on of the machine.	Yes No	No	See "Setting example" - "Setting the default value", page 27.
timer on at 08: 00	Set desired switch-on time	-	-	See "Setting example" - "Setting numerical values", page 27.
timer off Yes	Enable or disable automatic switch-off of the machine.	Yes No	No	See "Setting example" - "Setting the default value", page 27.
timer off at 20: 00	Set desired switching off time	-	-	See "Setting example" - "Setting numerical values", page 27.

## Troubleshooting

General troubleshooting procedure:

- ▶ Switch the coffee machine off and, after several seconds, on again.
  - ☑ In most cases, the fault will be eliminated automatically.
- ▶ Repeat the steps that led to the fault.

If the fault occurs again:

- ▶ Find the fault in the following tables.
- ▶ Perform the described troubleshooting steps.

If the fault persists:

- ▶ Contact your service partner and describe the fault.

### Malfunction with display message

Message	Cause	What to do
<b>grinder overload</b>	<ul style="list-style-type: none"> <li>• Right grinder is overloaded.</li> <li>• Right grinder is clogged.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Check the grinder for foreign objects. Press the [ ] field.</li> <li>▶ If the message persists: contact your service partner.</li> </ul>
<b>grinder current</b>	<ul style="list-style-type: none"> <li>• PC board defective.</li> <li>• Electronics defective.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Contact service partner.</li> </ul>
<b>Brewing unit current fault</b>	<ul style="list-style-type: none"> <li>• PC board defective.</li> <li>• Electronics defective.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Contact service partner.</li> </ul>
<b>overcurrent brew motor</b>	<ul style="list-style-type: none"> <li>• The brewing unit is drawing too much current (over 4 A).</li> <li>• The brew unit is blocked.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Contact service partner.</li> </ul>
<b>Water flow error</b>	<ul style="list-style-type: none"> <li>• No water supply connection.</li> <li>• Pump faulty (pump pressure too low).</li> <li>• Brewing unit blocked.</li> <li>• Water system clogged.</li> <li>• Grind level too fine.</li> <li>• PC board and flowmeter incorrectly connected.</li> <li>• Electrical problem (PC board, ...).</li> </ul>	<ul style="list-style-type: none"> <li>▶ Open the stopcock and press the beverage field again.</li> <li>▶ Check the brewing unit.</li> <li>▶ Check the grinder mixture.</li> <li>▶ If the message persists: contact your service partner.</li> </ul>
<b>Crit. coffee temp.</b>	<ul style="list-style-type: none"> <li>• Electrical problem between sensor and PC board.</li> <li>• Temperature sensor defective.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Contact service partner.</li> </ul>
<b>Coffee heating timeout</b>	The set temperature of the coffee boiler was not reached within 4 minutes after the machine was switched on.	<ul style="list-style-type: none"> <li>▶ Switch the machine off and back on.</li> <li>▶ If the message persists: contact your service partner.</li> </ul>
<b>Hot water heating timeout</b>	The set temperature of the hot water boiler was not reached within 4 minutes after the machine was switched on.	<ul style="list-style-type: none"> <li>▶ Switch the machine off and back on.</li> <li>▶ If the message persists: contact your service partner.</li> </ul>
<b>Coffee sensor defective</b>	<ul style="list-style-type: none"> <li>• Electrical problem between sensor and PC board.</li> <li>• Temperature sensor defective.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Contact service partner.</li> </ul>
<b>Hot water sensor defective</b>	<ul style="list-style-type: none"> <li>• Electrical problem between sensor and PC board.</li> <li>• Temperature sensor defective.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Contact service partner.</li> </ul>
<b>Brewing unit timeout</b>	The brewing unit motor does not run.	<ul style="list-style-type: none"> <li>▶ Contact service partner.</li> </ul>

<b>overtemperature steam</b>	<ul style="list-style-type: none"> <li>• The steam temperature has fallen to 115 °C.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Wait until the temperature has been reached again.</li> <li>▶ Switch the machine off and then back on.</li> <li>▶ Contact service partner.</li> </ul>
<b>Initialisation...</b>	<ul style="list-style-type: none"> <li>• The software and the processor are restarted.</li> <li>• The brewer moves to the "Home" position.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Switch the machine off and then back on.</li> <li>▶ Contact service partner.</li> </ul>
<b>timeout fridge</b>	The set temperature of the cooling unit was not reached within 4 minutes after the machine was switched on.	<ul style="list-style-type: none"> <li>▶ Switch the machine off and back on.</li> <li>▶ If the message persists: contact your service partner.</li> </ul>
<b>No milk</b>	<ul style="list-style-type: none"> <li>• The milk container is empty.</li> <li>• The milk system is clogged.</li> <li>• The milk system was wrongly disabled.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Check whether the milk container is filled.</li> <li>▶ Perform the daily cleaning routine.</li> <li>▶ If the malfunction persists: contact your service partner.</li> </ul>

### Malfunction without display message

<b>Fault</b>	<b>Cause</b>	<b>What to do</b>
<b>No milk foam</b>	<ul style="list-style-type: none"> <li>• The milk container is empty.</li> <li>• The milk system is clogged.</li> <li>• The milk system was wrongly disabled.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Check whether the milk container is filled.</li> <li>▶ Perform the daily cleaning routine.</li> <li>▶ If the malfunction persists: contact your service partner.</li> </ul>

## Water quality

A cup of coffee consists of 99% water. Therefore, the water has a significant effect on the coffee's taste. To obtain an excellent cup of coffee, you need excellent water.

The water is important not only to the taste of the coffee but also to the coffee machine itself. Poor water quality can lead to permanent machine damage.

Therefore, close attention needs to be paid to the water quality in order to obtain high quality coffee and protect the coffee machine.

## Water values

**CAUTION!**  
Risk of machine  
damage!



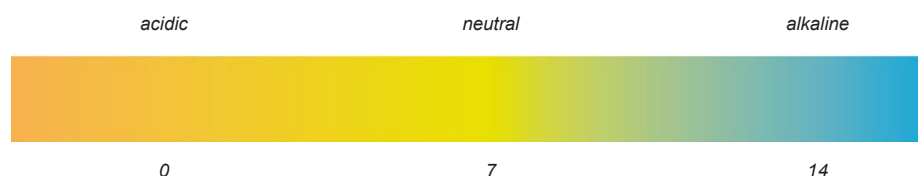
Poor water values can lead to machine damage. It is imperative that the specified values be complied with. Otherwise, Schaerer Ltd. shall not accept liability.

Water is referred to as hard or soft depending on its composition. The hardness of water is referred to as its total hardness.

Total hardness (6 hardness levels as per the Swiss food legislation)					
Water condition	mmol/l	° fH	° dH	° eH	ppm
Very soft	0.0 to 0.7	0 to 7	0 to 4	0 to 5	0 to 70
Soft	0.7 to 1.5	7 to 15	4 to 8	5 to 10	70 to 150
Moderately hard	1.5 to 2.5	15 to 25	8 to 12	10 to 15	150 to 250
Fairly hard	2.5 to 3.2	25 to 32	12 to 18	15 to 23	250 to 320
Hard	3.2 to 4.2	32 to 42	18 to 30	23 to 38	320 to 420
Very hard	> 4.2	> 42	> 30	> 38	> 420

The following water values are a precondition for the correct operation of the coffee machine:

- 4 – 6 °dGH
- pH value: 6.5 – 7 (neutral pH)
- Max. chlorine content: 100 mg per litre



If the test result is below the specified range, the water must be enriched with minerals.

If the test result is above the specified range, the water must be decalcified (with a suitable bypass to ensure that the pH value exceeds 5.5).

## Filtering equipment

Filters are essential for the care and maintenance of the machine, not to mention for hygiene, and for the best quality of coffee. Water is a vital medium: Its properties do not remain constant. Regardless of the system used, the water properties must be measured and the water filter replaced annually.

For more information, contact your local sales and service partner.

## Safety notes



Maximum safety is one of Schaerer A G's most important product features. The effectiveness of the safety devices is guaranteed only if the following instructions are observed to prevent injuries and health hazards:

- Do not touch hot machine parts.
- Do not use the coffee machine if it is not working properly or is damaged.
- Under no circumstances may the installed safety devices be modified.

## User risks

**DANGER!**  
Risk of electrocution!



**Improper handling of electrical devices can result in electric shock. The following instructions absolutely must be complied with:**

- Work on electrical systems may only be performed by skilled electricians.
- The device must be connected to a fused electrical network (we recommend passing the connection through a fault current circuit breaker).
- All relevant guidelines on low voltage and/or country-specific or local safety regulations and laws must be observed.
- The connection must be properly earthed and protected from electric shock.
- The voltage must correspond to the data on the device's serial plate.
- Never touch energised parts.
- Before carrying out service work, always switch off the main switch and/or disconnect the device from the power supply system.
- The power cable may only be replaced by qualified service technicians.

**CAUTION!**  
User at risk!



**Improper handling of the coffee machine can lead to light injuries. The following instructions absolutely must be complied with:**

- This device is not intended to be operated by persons (including children) with limited physical, sensory or mental capabilities or a lack of experience and/or knowledge unless they are supervised by a person responsible for their safety or obtain instructions from this person on how to operate the device.
- Supervise children to ensure that they do not play with the device.
- The coffee machine must be installed so that there are no impediments to care and maintenance.
- In both self-service and full-service applications, trained personnel must supervise the machine in order to ensure that the care instructions are observed and the personnel is available for questions regarding use.
- Fill the bean hopper with beans only, the powder container with coffee machine powder only and the manual inlet with ground coffee only (or cleaning tablets during cleaning).

**CAUTION!**  
Hot fluid!



**There is a risk of scalding in the dispensing area of beverages, hot water and steam. During dispensing or cleaning, never reach under the dispensing positions.**

**CAUTION!**  
Hot surface!



**The dispensing positions and the brewing unit may be hot. Do not touch any part of the dispensing equipment except the grips provided for this purpose. Only clean the brewing unit when the coffee machine has cooled down.**

**CAUTION!**  
Risk of trapping fingers!



**There is a risk of trapping fingers or hands when handling moving components. While the coffee machine is switched on, never reach into the bean or powder containers or into the opening of the brewing unit.**



## Risk from cleaning products

### Application

**CAUTION!**  
User at risk!



**Danger of poisoning from swallowing cleaning products. The following instructions absolutely must be complied with:**

- Store cleaning products away from children and unauthorised persons.
- Do not swallow the cleaning products.
- Never mix cleaning products with other chemicals or acids.
- Never put cleaning products in the milk container.
- Never put cleaning products in the drinking water tank (internal/external).
- Only use the cleaning and decalcification products for their intended purpose (see labels).
- Do not eat or drink while handling cleaning products.
- Ensure that the area is well-ventilated when handling cleaning products.
- Wear safety gloves when handling cleaning products.
- Wash your hands thoroughly after handling cleaning products.



*Before using the cleaning products, carefully read the information on the packaging.*

### Storage

The following instructions absolutely must be complied with:

- Store them in a place that is inaccessible to children and unauthorised persons.
- Protect cleaning products from heat, light and moisture.
- Store them in a separate location from acids.
- Store them in the original packaging only.
- Store cleaning products for daily and weekly use separately.
- Do not store them together with foodstuffs or other edibles.
- Local regulations regarding the storage of chemicals (cleaning products) apply.

### Disposal

If recycling is not possible, cleaning products and their containers must be disposed according to the all local rules and regulations.

### Emergency information

Inquire about the phone number of the emergency service (toxicological information centre) from the manufacturer or a customer service authorised by the manufacturer. If your country does not have this type of institution, note the following table:

Swiss Toxicology information Centre	
International calls:	+41 44 251 51 51
Call from Switzerland	145
Internet	www.toxi.ch

Important for the physician: If possible, give the information on the package to the physician providing treatment.

## Risk of damage to the machine

**CAUTION!**  
Risk of machine  
damage!



**Improper handling of the coffee machine can lead to damage or contamination. The following instructions absolutely must be complied with:**

- Never press the touch screen using force, strong pressure or pointed objects!
- For water with a carbonate hardness above 5°dKH, install a water filter, as otherwise the coffee machine can be damaged due to calcification.
- For insurance law reasons, always ensure that after closing for the day, the main water valve (coffee machine with mains water supply) is closed and the electrical main switch is switched off or the mains plug is unplugged.
- All relevant guidelines on low voltage and/or country-specific or local safety regulations and laws must be observed.
- Do not operate the device if the water supply is blocked. Otherwise, the boilers will not be refilled and the pump will run dry.
- To prevent water damage in case of hose breakage, Schaerer Ltd. recommend routing the water supply connection via a water stop valve (at the installation site).
- After extended downtime (e.g. holiday), the coffee machine must be cleaned before it is put back into operation.
- Protect the coffee machine from weather (frost, humidity etc.).
- Faults may be remedied by a qualified service technician only.
- Only use Schaerer Ltd. original spare parts.
- Report any noticeable damage or leaks immediately to an authorised service partner and have any faulty parts replaced and/or repaired.
- Never spray the device with water or clean it with a steam cleaner.
- When using caramelised coffee (flavoured coffee), clean the coffee system twice daily.
- Fill the bean hopper with beans only, the powder container with coffee machine powder only and the manual inlet with ground coffee only (or cleaning tablets during cleaning).
- If the coffee machine and/or accessories are transported at temperatures below 10°C, the coffee machine and/or accessories must be stored for three hours at room temperature before the coffee machine and/or accessories are connected to the mains and switched on. Failure to observe this precaution can result in a danger of short-circuit or damage to electrical components.
- Always use the new hose set (drinking water/dirty water hose) provided with the machine. Never use old hose sets.

## Hygiene

### Water

**CAUTION!**  
User at risk!



**Improper handling of water can lead to health problems and machine damage. The following instructions absolutely must be complied with:**

- The water must be uncontaminated.
- Do not connect the machine to pure reverse osmosis water or other aggressive types of water.
- The carbonate hardness must not exceed 4-6°dKH (German carbonate hardness) or 7-10°fKH (French carbonate hardness).
- The total hardness must always be higher than the carbonate hardness.
- The minimum carbonate hardness is 4°dKH or 7°fKH.
- Max. chlorine content of 100 mg per litre.
- pH value between 6.5 – 7 (pH neutral).

#### **Machines with drinking water tank (internal & external)**

- Fill the drinking water tank daily with fresh water.
- Thoroughly rinse the drinking water tank before filling.

## Coffee

**CAUTION!**  
User at risk!



**Improper handling of coffee can lead to health problems. The following instructions absolutely must be complied with:**

- Check the packaging for damage before opening.
- Do not add more beans than will be needed for one day.
- Close the bean hopper lid immediately after filling.
- Store coffee in a cool, dry and dark location.
- Store coffee separately from cleaning products.
- Use the oldest products first ("first-in-first-out" principle).
- Use before the expiry date.
- Always reclose packages after opening to ensure that the contents remain fresh and are protected from contamination.

## Milk concentrate

**CAUTION!**  
User at risk!



**Improper handling of milk concentrate can lead to health problems. The following instructions absolutely must be complied with:**

- Use pre-cooled milk concentrate at a temperature between 3-5°C.
- Use milk concentrate from the original packaging.
- Check the packaging for damage before opening.
- Store milk concentrate in a cool, dry and dark location.
- Store milk concentrate separately from cleaning products.
- Use the oldest products first ("first-in-first-out" principle).
- Use before the expiry date.
- Consume open milk concentrate packages within seven (7) days. Milk concentrate packages that have been open for longer than seven (7) days must be discarded.
- If the temperature in the cooling unit is above 5 °C for longer than six (6) hours, the milk concentrate package must be discarded.

## Environmental aspects & and protection



- When choosing cleaning products, please pay attention to its environmental friendliness, health risks, disposal requirements and any local options for proper disposal.
- Parts replaced by service technicians are reconditioned and replaced where possible.
- If recycling is not possible, cleaning products and their containers must be disposed according to all well as all local regulations and laws.
- The energy consumption conforms to the state of the art at the development of the unit.
- The units must be disposed of correctly in conformity with local and legal regulations. Neither the unit nor its components may, under any circumstances, be disposed of in refuse bins intended for household waste!

# Liability

## Operator responsibilities

The operator must ensure that the machine undergoes regular maintenance and that the safety devices are checked regularly by a Schaefer Ltd. service partner, a representative thereof, or other authorised persons.

Complaints about material defects must be reported to Schaefer Ltd. in writing within 30 days! For hidden defects, this period is extended to 12 months from the date of installation (work report, handover report), but no longer than 18 months after the product leaves the factory in Zuchwil.

Safety-relevant parts such as safety valves, safety thermostats, boilers etc. must not be repaired in any circumstances. They must always be replaced!

These measures are performed by a Schaefer Ltd. service technician or your service partner as part of the maintenance routine.



See also "Service".

## Warranty and liability

**CAUTION!**  
Loss of warranty!



No responsibility will be taken for warranty or liability claims in the event of personal injury or material damage as a result of one or more of the following causes:

- Non-intended use of the machine.
- Improper installation, commissioning, operation, cleaning and maintenance of the device and the associated optional devices.
- Failure to observe maintenance intervals.
- Operating the unit with defective safety devices or safety and protective equipment that is not properly installed or is not functional.
- Failure to observe the safety notes in the operating instructions pertaining to storage, installation, commissioning, operation and maintenance of the machine.
- Operating the device when it is not in perfect condition.
- Repairs carried out improperly.
- Use of spare parts that are not original Schaefer Ltd. spare parts.
- Use of cleaning products that are not recommended by Schaefer Ltd..
- Catastrophic incidents due to foreign objects, accident, vandalism or force majeure.
- Penetrating the device with any type of object or opening the housing.

The manufacturer only accepts liability or honours warranty claims provided that all specified maintenance and service intervals have been kept and that only original spare parts supplied by the manufacturer or by a supplier authorised by the manufacturer have been used.

