

Schaerer Coffee Soul C

Operating instructions



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1 Safety

Safety notes



	DANGER An imminently dangerous situation that may result in death or serious injury. The measures described for preventing this danger must be adhered to.
	WARNING A generally dangerous situation that may result in serious injury. The measures described for preventing this danger must be adhered to.
	CAUTION A generally dangerous situation that may result in minor injury. The measures described for preventing this danger must be adhered to.
	ADVICE A situation that may result in damage to the coffee machine. The measures described for preventing this danger must be adhered to.

Warning symbols used

Symbols for danger and rules can appear both in the operating instructions and on the machine.

Charac- ters	Type of danger	Charac- ters	Type of danger
	Warning of hot fluids		Warning of hot surface
	Warning of hot steam		Warning of dangerous electrical voltage
	Warning of poisonous substances		Warning of hand injuries

Prohibition symbols used

Charac- ters	Significance	Charac- ters	Significance
	Read documentation!		Wear safety gloves!

Charac- ters	Significance	Charac- ters	Significance
	Wear safety goggles!		Wash your hands!
	Disconnect the power plug!		

Labels in these instructions

Label	Significance	Label	Significance
►	List without fixed order	✓	Results of steps
{1}	Caption, item numbers in figures	[Button]	Display and operating elements
1.	Step-by-step instructions	"Menu"	Menus on screens

1.1 Intended use

The SOUL C is designed to dispense coffee beverages and hot water into cups, mugs, glasses or jugs. This device is intended for commercial use in hotels, restaurants and similar establishments. The device can be installed at self-service locations and operated without supervision. The device can be used in businesses, offices and other similar work environments, hotels, motels and bed and breakfast establishments and can be operated by non-experts and customers. This device can be used by children aged 8 and up and by persons with limited physical, sensory or mental capabilities or a lack of experience and/or knowledge, provided they are supervised or have been instructed about the safe use of the device and understand the potential hazards resulting from said use. Children must not play with the device. Children must also not be allowed to perform cleaning procedures or user maintenance without supervision. This must only be done by persons who have the knowledge of and practical experience with the device, particularly when it comes to service and hygiene.



Use of this equipment is subject to the "General Terms and Conditions" of Schaerer AG 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.

1.2 Foreseeable misuse



WARNING

Danger from misuse!

Any use of the coffee machine beyond its intended use or in a different manner is considered misuse and can lead to dangerous situations.

Improper handling of the coffee machine can lead to injuries.

- ▶ Read the operating instructions carefully before using the device.
- ▶ Only allow access to the service area of the coffee machine to qualified service technicians.
- ▶ Only have cleaning and user maintenance done by persons who have knowledge of and practical experience with the device, particularly when it comes to service and hygiene.
- ▶ In Self-service mode and in operation by staff, have trained personnel supervise the coffee machine so that they are available to the user for questions and to ensure compliance with the maintenance measures.
- ▶ Never modify the safety devices of the coffee machine.
- ▶ Only use the coffee machine if it is working properly and is not damaged.
- ▶ Only fill bean hoppers with coffee beans.

1.3 Operator responsibilities

The operating company must ensure that the machine undergoes regular maintenance and that the safety devices are checked regularly by a Schaerer AG service partner, a representative thereof, or other authorised persons. Schaerer AG must be notified in writing of any defects within 30 days! For hidden defects, this period is extended to 12 months from the date of installation (work report, handover report), but no later than 18 months after the product leaves the factory in Zuchwil.



See chapter "Maintenance" for information on maintenance intervals.

1.4 Residual risks

Maximum safety is one of the most important features of Schaerer AG products. The effectiveness of the safety devices is only ensured if the following instructions are observed to prevent injuries and health hazards.



These safety notes can be requested from Schaerer AG or downloaded directly from the <Schaerer Coffee Link> portal in the MediaPool (<https://login.coffeelink.schaerer.com/>).

Risk of electrocution

**DANGER****Risk of death due to electrocution!**

Improper handling of electrical equipment can result in electric shock. There is a risk of death.

- ▶ Only have work on electrical systems performed by skilled electricians.
- ▶ Connect the device to a secured circuit. (Recommendation: Route the connection via an earth leakage circuit breaker.)
- ▶ Applicable low voltage guidelines and/or country-specific and local safety regulations and laws must be observed.
- ▶ Earth the connection properly and secure it against electric shock.
- ▶ Make sure that the voltage corresponds to the specifications on the serial plate of the device.
- ▶ Never touch energised parts.
- ▶ Before carrying out service work, always switch off the main switch and disconnect the machine from the mains power supply.
- ▶ Make sure that all poles of the device can be disconnected from the mains power supply. Disconnected connections must be visible from the site of the device at all times, and a lock must be used to ensure they stay disconnected.
- ▶ The connection cable must only be replaced by qualified service technicians.

Danger from cleaning products



Before using cleaning products, read the information on the cleaning product packaging carefully. If it is missing, the safety data sheet can be requested from the sales company (see cleaning product packaging).

**WARNING****Danger of poisoning from cleaning products!**

There is a risk of poisoning if cleaning products are ingested.

- ▶ Store cleaning products away from children and unauthorised persons.
- ▶ Do not swallow cleaning products.
- ▶ Never mix the cleaning product with other chemicals.
- ▶ Only use the cleaning and descaling products for their intended purpose (see label).
- ▶ 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.

Emergency information: Obtain the phone number of the emergency information service (toxicological information centre) from the cleaning product manufacturer (see cleaning product label). If your country does not have this type of institution, note the following table:

Swiss Toxicological Information Centre

International calls	+41 44 251 51 51
Calls from Switzerland	145
Internet	www.toxi.ch

Danger from allergies

**CAUTION****Health hazard due to additives!**

Beverages containing additives or traces of additives may trigger allergies. There is a risk to health.

- ▶ In self-service operation: Observe the sign attached to the coffee machine (contains information on any additives used that could trigger an allergic reaction).
 - ▶ When operated by staff: Observe information on any additive products used by the staff that could trigger an allergic reaction.
-

Danger from batteries

**CAUTION****Health problems due to contaminated water!**

Improper handling of water can cause health problems.

- ▶ Ensure that the water is free of dirt and bacteria.
 - ▶ Do not connect the coffee machine to pure reverse osmosis water or other aggressive types of water.
 - ▶ Make sure that the carbonate hardness is between 4 and 6 °dKH or 8 and 12 °fKH.
 - ▶ Ensure that the total hardness is higher than the carbonate hardness.
 - ▶ Do not exceed a maximum chlorine content of 50 mg per litre.
 - ▶ Make sure that the pH value is between 6.5 and 7 (pH-neutral).
-

**CAUTION****Health problems due to contaminated coffee!**

Improper handling of coffee can cause health problems.

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

Danger from heat

**CAUTION****Scalding danger due to hot fluids!**

There is a risk of scalding in the area where beverages, hot water and steam are dispensed.

- ▶ Never reach under the dispensing points while the machine is dispensing or during cleaning.
-

**CAUTION****Risk of injury due to hot surfaces!**

The dispensing points and the brewing unit may be hot.

- ▶ Never touch hot coffee machine parts.
- ▶ Do not touch any part of the beverage outlet except the grips provided for this purpose.
- ▶ Only clean the brewing unit after the coffee machine has cooled down.

Danger from mechanics**CAUTION****Danger of crushing caused by moving components!**

The beverage outlet and the user panel can be moved manually. During operation, the grinders and the brewing unit move. When working with moving components, there is a risk of fingers or hands becoming trapped.

- ▶ Do not touch any part of the beverage outlet except the grips provided for this purpose.
- ▶ Always push the user panel up and down with both hands.
- ▶ While the coffee machine is switched on, never reach into the bean hoppers or into the opening of the brewing unit.

1.5 Danger of property damage



ADVICE

Material damage due to improper handling of the coffee machine!

Improper handling of the coffee machine can lead to property damage or contamination.

- ▶ For water with a carbonate hardness above 6 °dKH, install a limescale filter; otherwise it can be damaged by limescale deposits.
- ▶ Do not operate the machine if the water supply is blocked. Otherwise, the boilers will not be refilled and the pump will run dry.
- ▶ Schaerer AG recommends installing a water stop valve (manufacturer-side) in the water connection to prevent water damage in case of hose breakage.
- ▶ After extended downtime (e.g. company holiday), the coffee machine must be cleaned before it is put back into operation.
- ▶ Protect the coffee machine from weather elements (frost, moisture, etc.).
- ▶ In the event of malfunctions, observe the table in the "Troubleshooting" chapter and call in a qualified service technician if necessary.
- ▶ Only use Schaerer AG original spare parts.
- ▶ Report any noticeable damage or leaks immediately to an authorised service partner and have any affected parts replaced or repaired.
- ▶ Never spray the machine with water or clean it with a steam cleaner.
- ▶ Do not install the machine on a surface where a water jet might be used.
- ▶ When using caramelised coffee (flavoured coffee), clean the brewing unit twice daily.
- ▶ Only fill bean hoppers with coffee beans.
- ▶ Never use freeze-dried coffee. This causes the brewing unit to stick.
- ▶ If the coffee machine is transported at temperatures below 10°C, store the coffee machine at room temperature for three hours before connecting the coffee machine to the power supply and switching it on. Otherwise condensation may cause short circuits or damage electrical components.
- ▶ Always use the new hose set supplied with the coffee machine (drinking water/waste water hose). Never use old hose sets.

2 Technical data

2.1 Beverage types and output



The SOUL C is not intended for continuous dispensing of beverages for more than 45 minutes.

The following beverages can be prepared:

Beverage output per hour	
Coffee	72 – 120 cups
Recommended daily output	
Coffee	Approx. 180 cups
Available beverages	
Coffee	x
Americano ^{AC/AW}	x
Hot water	x

Recommended
equipment:

AC Brewing accelerator
AW Additional water

2.2 Machine data

Boiler nominal power	
Standard	Hot water boiler 3000 W
Can be extended to	5000 W
Operating temperature	
Minimum operating temperature (T min.)	Hot water boiler 10 °C (50 °F)
Maximum operating temperature (T max.)	192 °C (378 °F)
Operating temperature	95 °C (203 °F)
Overpressure	
Working pressure	Hot water boiler 0.25 MPa (29 psi)

Overpressure		Hot water boiler	
Permissible operating overpressure (p max.)		1.2 MPa (174 psi)	
Test overpressure		2.4 MPa (348 psi)	
Capacities			
Drinking water capacity		Mains water supply	
Bean hopper capacity		2000 g each	
Grounds container capacity		25 – 35 coffee cakes	
External dimensions			
Width of coffee machine		330 mm	
Height including bean hopper		667 mm	
Depth		576 mm	
Weight			
Empty weight		Approx. 50 kg	
Sound pressure			
Continuous sound pressure level		<70 dB(A)**	

Subject to technical changes.

* For special equipment, see serial plate. The values specified here apply to the standard equipment.

** The A-weighted noise level (slow) and Lpa (impulse) at the operating personnel workstation is below 70 dB (A) in every operating mode.

2.3 Mains connection on site

Mains	Connection values			On-site fuse	Connecting cable, conductor cross-section
2L, PE	208 – 240 V	60 Hz	2700 – 3500 W	20 – 30 A	3 x 12 AWG
2L, PE	208 – 240 V	60 Hz	4360 – 5750 W	30 A	3 x 12 AWG

2.4 Water connection values

Water pressure		Minimum:	0.1 MPa (14.5 psi)
		Maximum:	1.0 MPa (145 psi)

Water inlet temperature	Minimum: 10 °C (50 °F) Maximum: 30 °C (86 °F)
Chlorine content	Maximum: 50 mg per litre
pH value	Minimum: 6.5 Maximum: 7
Carbonate hardness (German)	Minimum: 4 °dKH Maximum: 6 °dKH
Carbonate hardness (French)	Minimum: 8 °fKH Maximum: 12 °fKH
Total hardness	> Carbonate hardness
Ambient temperature	Minimum: +10 °C (50 °F) Maximum: +40 °C (104 °F)
Relative humidity	Maximum: 80% RH

2.5 Serial plate

Type	Model
Schaerer SOUL C	No model versions

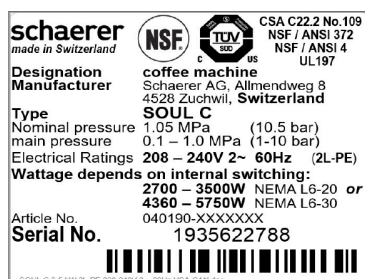


Image: Serial plate

- Open the user panel.

The serial plate is located on the front of the coffee machine behind the user panel.

In the event of a fault or warranty claim, please provide the information on the serial plate, see list.

Recommended specifications:

- Machine type > [SOUL C]
 - Nominal power > e.g. 2700 – 3600 W or 4360 – 5750 W
 - Nominal voltage > e.g. 208 – 240 V
 - Fuse value on site > e.g. 20 A [above NEMA L6-20 plug] or 30 A [above NEMA L6-30 plug]
 - Serial number > [YYCW XXXXXX] > e.g. 1935 XXXXXX
- Close user panel



If the front serial plate is no longer legible, there is a second serial plate on the rear behind the cover plate

2.6 Declaration of conformity

2.6.1 Applied standards

The aforementioned manufacturer declares herewith that this machine complies with all relevant stipulations of the specified directives. In case of any modifications of the units that have not been approved by Schaerer, this declaration is rendered invalid. The following harmonised standards have been applied. A quality management system certified by DEKRA, in accordance with ISO 9001 and 14001, has been used to ensure the proper adherence to the requirements.

International (CB)

Safety

- ▶ UL197
- ▶ CSA C22.2 no.109

Sanitation

- ▶ NSF / ANSI 372
- ▶ NSF / ANSI 4

CB	Scheme > International system for mutual recognition of test reports and certificates
NSF	National Sanitary Foundation. Product testing, inspection and certification organisation
UL	Underwriters Laboratories. Product safety standards for the US market.
CSA	Canadian Standards Association.
ANSI	American National Standards Institute.

2.6.2 Manufacturer's address

Manufacturer

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Documentation specialist

Schaerer AG
Product care & management system
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CH-4528 Zuchwil

3 Product description

3.1 Overview of coffee machine

The Schaerer Coffee SOUL C has a 12-inch touch screen.



Image: Overview of the coffee machine

No.	Name	Explanation
1	User panel with touch screen	See chapter "User panel with touch screen"
2 – 4	Bean hopper	The bean hoppers feed coffee beans into the coffee machine.
5	Closing device of user panel	The closing device ensures that the user panel is kept in the closed position and secured against unauthorised opening. <ul style="list-style-type: none">• Key to the left: Open closing device• Key to the right: Close closing device
6	Drip tray	The drip tray collects the water from cleaning and spilled coffee.
7	Machine feet	The machine feet increase the distance from the standing surface by 100 mm.

No.	Name	Explanation
8	Operating unit [ADA]	The operating unit makes it possible for persons with disabilities to operate the coffee machine.
9	Grounds container	The coffee cakes are collected in the grounds container.
10	Beverage outlet	The beverage outlet dispenses both beverages and hot water.
11	ProCare front door	The ProCare cleaning system cleans the coffee path from the brewing unit to the beverage outlet. The cleaning product (basic) is behind the front door of the ProCare.
12	Functional lighting	The functional lighting provides information about the operating condition of the coffee machine. <i>See chapter "Functional lighting"</i>

3.1.1 Bean hopper



Image: Bean hopper

The SOUL C coffee machine is equipped with three bean hoppers. Each of the three bean hoppers has a capacity weight of 2000 g and can be filled with three different types of coffee. The bean hoppers are located on top of the coffee machine. The bean hoppers can be removed from the coffee machine, even when full.

3.1.2 Grounds container

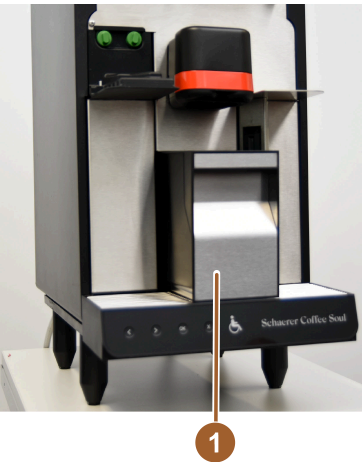


Image: Grounds container

The coffee cakes [1] are collected in the grounds container. The grounds container can be removed from the front of the coffee machine and emptied.

3.1.3 Machine feet







The SOUL C is delivered with 100 mm feet as standard.

Image: Machine feet

3.1.4 Drip tray with operating unit



The drip tray [3] collects spilled beverages, drops and the cleaning water. The drip tray [3] must be connected to a waste water hose during installation, which is either led into an external waste water tank or connected directly to the waste water connection.
The SOUL C is equipped with an additional operating unit on the front that enables field navigation. The following navigation options are available:

No.	Name	Explanation
		Press [Arrow to the left] navigation button to navigate to the left.
		Press [Arrow to the right] navigation button to navigate to the right.
		Confirm the selection with the "OK" button.
		Pressing the function key with the "X" deletes the last entry. Pressing it continuously takes you back to the main menu.

3.1.5 Beverage outlet



Image: Beverage outlet

The beverage outlet [1] is used to dispense coffee as well as hot water. The beverage outlet [1] must be cleaned regularly.



Image: Hot water outlet

Hot water is dispensed via the hot water outlet of the beverage outlet [1].

3.1.6 Grinder



Image: Grinder

The coffee machine is equipped with one grinder [1] per bean hopper. The grinder [1] grinds the beans fresh during coffee preparation and conveys the ground powder into the brewing unit. The freshly brewed coffee is dispensed via the beverage outlet. The grinding level of the grinder is regulated automatically.

3.1.7 Functional lighting



The coffee machine is equipped with functional lighting [1]. It is colour-coded and also provides information about the operating condition of the coffee machine.

- White: Coffee machine is ready for use
- Yellow: Action due soon [refilling, cleaning, etc.]
- Red: Machine error [grinder blocked, water flow error, etc.]

Image: Functional lighting

3.1.8 Décor elements



The coffee machine is provided with décor elements [1] (black or red). The décor elements can match the coffee machine to the surroundings. The "Décor elements" option can be retrofitted or the colours changed. Various colours are available for conversion.

Image: Décor elements

3.2 Connections and interfaces of coffee machine

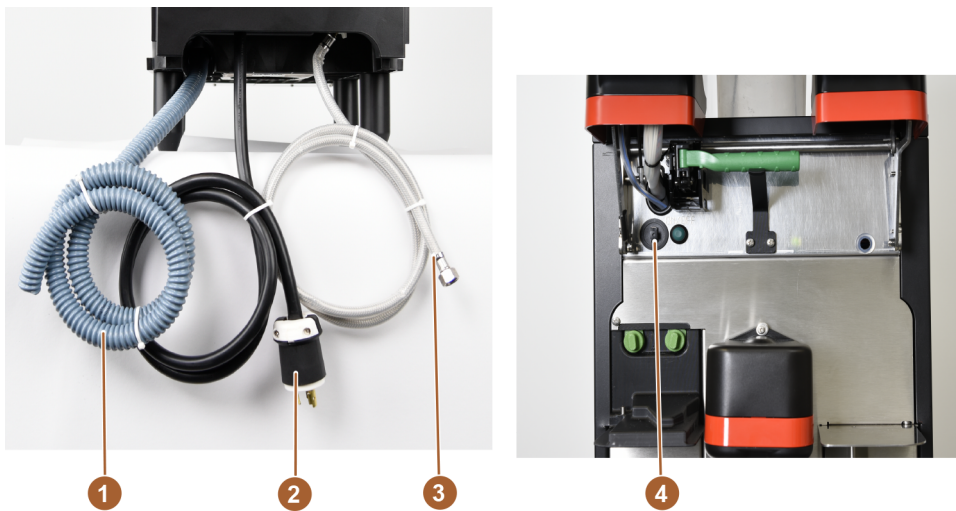


Image: Connections and interfaces of coffee machine

No.	Name	Explanation
1	Waste water connection	A hose [1] can be attached to the waste water connection and the waste water can be discharged from the coffee machine.
2	Electrical connection	The electrical connection is located inside the coffee machine in the rear area and supplies the coffee machine with power.
3	Connection to the water supply	The water supply connection supplies the coffee machine with drinking water. This is done via a mains water supply.
4	Type A USB port	A USB data carrier can be used to save settings of the coffee machine. The type A USB port is located behind the user panel. The user panel must be opened to access the USB port.

3.3 Options



Image: Data exchange

Schaerer Coffee Link data exchange

The “Schaerer Coffee Link” digital solution provides comprehensive information for quality assurance as well as the monitoring and optimisation of individual business processes. The Schaerer “Coffee Link” web portal can be used to read various types of data from the coffee machine. The “Schaerer Coffee Link” option can be retrofitted.



Brewing accelerator

The brewing accelerator permits more efficient dispensing of large volumes of beverages [e.g. americanos] with improved beverage quality. An additional quantity of hot water is guided into the coffee outlet after the brewing unit. The "Brewing accelerator" option can be retrofitted.

Image: Brewing accelerator

3.4 Scope of delivery and accessories

Quantity	Designation	Article number
Documentation		
1	Operating instructions (OI)	*
Scope of delivery of the coffee machine		
1	Drip tray cpl. ADA	100760
General scope of delivery		
1	Single outlet cup positioning aid bl	100057
1	Sticker, proposition 65 warning	075310
Cleaning/Maintenance scope of delivery		
1	Brush 75-40 (brewing chamber)	067409
1	Cleaning brush (beverage outlet)	062951
1	Cleaning bag ProCare Blue 600g	101044
1	Carbonate hardness test strip	067720
1	Schaerer service number sticker	075171
3	Hose clamp 29 open	066794
1	Spiral hose 20/27 TPE bl 1500 mm	100212
1	Spiral hose 20/27 TPE bl 500 mm	100211
1	Hose sleeve 21-21 PE-HD	100213
1	Plug-in connection Dd	019753
1	O-ring 43.82x5.33 MVQ 70 Sh type	073222
1	O-ring 47.22x3.53 MVQ 70 Sh type	073223
Machine feet		
4	Foot 40x100	100651

Quantity	Designation	Article number
4	Rubber screw foot M 10x15	060408
4	Threaded bolt M 10-M8	079757
Mains water supply		
1	Reinforced hose DN8X1500 ÜM3/8-ÜM3/4 90° NSF	075658

* Version-dependent article number

4 Installation and commissioning

4.1 Transport conditions



CAUTION

Risk of injury during transport!

Transporting the coffee machine incorrectly can result in injuries.

- Observe the general regulations for health and safety in accordance with the local provisions.



ADVICE

Material damage due to improper transport!

Improper transport during a change of location of the coffee machine may cause damage to the coffee machine.

Adhere to the following points:

- Transport the coffee machine with a trolley. Fix the coffee machine on the trolley and pull the trolley.
- Before moving the coffee machine, it is essential that you detach the drinking water supply, power supply and waste water outlet.
- Before moving the coffee machine, check the floor for obstacles and uneven areas.

4.2 Packaging/Unpacking



CAUTION

Cutting and eye injury due to packaging material!



Packaging materials with sharp edges can cause injuries. Cutting straps can cause eye injuries.

- Wear gloves and protective goggles while unpacking the coffee machine.



4.2.1 Unpacking coffee machine

1. Unpack coffee machine.
2. Remove the accessories supplied from the accessory box.
3. Check the remaining package contents for accessories.
4. Check to ensure delivery is complete.
See also chapter "Scope of delivery and accessories".
5. Keep the original packaging in case the equipment needs to be returned.

4.2.2 Unpacking accessories

The following accessories are delivered:

- Operating instructions and declaration of conformity supplementary sheet
- Cleaning product (according to machine equipment)
- Brush for cleaning inside of grounds container
- Small cleaning brush

4.3 Setup

Installation conditions

The location where the coffee machine is set up must meet the following conditions:

- Make sure that the installation surface is stable, horizontal and level so that it does not become deformed under the weight of the coffee machine.
- Do not place on hot surfaces or close to heat sources.
- Set up the coffee machine in such a way that it can be monitored by trained personnel at all times.
- The required supply terminals must be within 1 m (3.3 ft) of the coffee machine location according to the manufacturer-side installation plans.
- Comply with all applicable local regulations for kitchen equipment.

Maintain the following clearances for maintenance work and operation:

- Allow enough space above the machine to refill coffee beans (20 cm recommended).
- Leave at least 5 cm clearance from the rear side of the coffee machine to the wall (air circulation).

Climatic conditions

The location where the coffee machine is installed must satisfy the following ambient conditions:

- ▶ Ambient temperature from +10 °C (50 °F) to +40 °C (104 °F)
- ▶ Relative humidity of max. 80% RH
- ▶ This coffee machine is designed for indoor use only. Do not use the machine outside, and never expose it to weather elements (rain, snow, subzero temperatures).

4.4 Installing coffee machine

The coffee machine must be installed in accordance with the applicable national and local electrical and sanitary regulations. This includes an adequate non-return mechanism.



Read chapters "Setting up the coffee machine" and "Mains connection on site" carefully before starting installation!

The following connections are required at the installation site:

- Socket for NEMA L6-20 mains plug or fixed connection with main switch
 - The serial plate provides information about the required max. fuse.
 - The serial plate provides information about the necessary min. conductor cross-section.
- Mains water supply 3/8" or connection to the external drinking water tank

- Siphon or external waste water tank for waste water hose Ø20mm
- Optional interface for communication of coffee machine with the optional accessories



All machine-side connections are ready for use at the time of delivery.

4.4.1 Connecting power supply

The equipment must be connected in accordance with the regulations of the country in which it is installed. The voltage specified on the serial plate must match the mains voltage at the installation location. The mains socket and mains switch must be easily accessible to the operator at the installation site.

Risk of electrocution



DANGER

Risk of death due to electrocution!

When connecting the coffee machine, there is a danger of death from electric shock.

- ▶ Make sure the phase is fused at the ampere value specified on the serial plate.
- ▶ Make sure that all poles of the device can be disconnected from the mains power supply.
- ▶ Make sure that the manufacturer-side electrical system is designed in accordance with IEC 364 (DIN VDE 0100). To increase safety, the device should be connected to a ground fault circuit interrupter with 30 mA nominal error current (EN 61008). (Type B residual current circuit breakers ensure response even in the event of smooth DC residual currents. This results in a high level of safety.)
- ▶ Never operate a device with a damaged connection cable. Have a defective connection cable or plug replaced immediately by a qualified service technician.
- ▶ Schaerer AG does not recommend using an extension cord. If an extension cord is used in spite of this (minimum cross-section: 1.5 mm²), observe the manufacturer's data for the cable (operating instructions) and comply with the locally applicable regulations.
- ▶ Route the connection cable in such a way that it does not pose a tripping hazard. Do not pull the cable over corners or sharp edges, pinch it between objects or allow it to hang loosely in open spaces. Do not position the cable over hot objects, and protect the cable from exposure to oil and aggressive cleaning products.
- ▶ Never lift or pull the device by the connection cable. Never pull the plug out of the socket by its connection cable. Never touch the cable or plug with wet hands. Never insert a wet plug into a power socket.

Connection cable



DANGER

Danger to life due to defective or non-original connection cable!

Use of a faulty connection cable or one that is not the original cable results in the risk of electric shock and fire.

- ▶ Only use an original connection cable. The original connection cable for your country can be obtained from your service partner.
- ▶ Connection cables that are plugged in on both sides can be replaced by the customer.
- ▶ Have connection cables with a fixed connection replaced by a service technician.

- ▶ Connect the coffee machine to the mains connection.



See also chapter "Technical data".

4.4.2 Connecting water supply

The following variants are available for the drinking water connection:

- Mains water supply

The following variants are available for the waste water connection:

- Standard waste water outlet

4.5 Display-guided commissioning



The commissioning program automatically starts the first time the machine is switched on. It explains all aspects of installation. The service technician can trigger the commissioning program manually at any time.



See also chapter "Switching on" for a description on how to switch on the coffee machine.

5 Operation

5.1 Operating elements of coffee machine

5.1.1 Overview of operating element



Image: Overview of the operating elements on the outside of the coffee machine

No.	Name	Explanation
1	User panel with display	Touch screen (touch-sensitive 12" display) for operating the coffee machine.
2	Closing device of user panel	The user panel can be locked when closed to prevent unauthorised access.
3	Control panel	The control panel is integrated in the operating unit and is located on the front of the drip tray. It enables navigation in the display and is designed to be barrier-free in accordance with ADA guidelines.

5.1.2 Operating elements behind the user panel

Open the user panel to access the operating elements behind the user panel.



See chapter "Operation" – "User panel" – "Opening user panel".

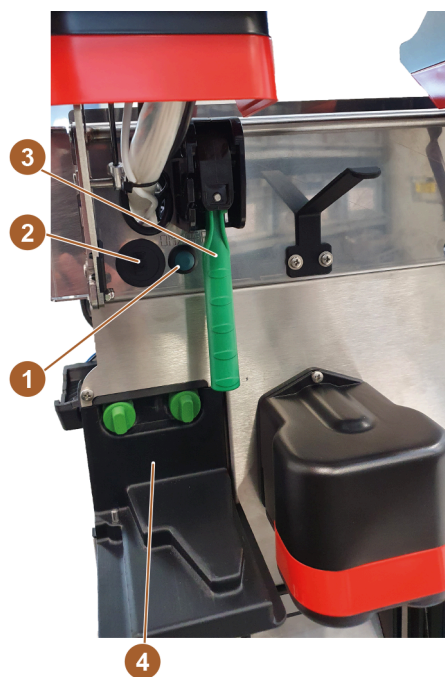


Image: Operating elements behind the user panel

No.	Name	Explanation
1	Coffee machine on/off switch	The on/off switch of the coffee machine is located behind the user panel. Pressing the switch briefly starts the coffee machine. Pressing and holding the button for 4 seconds switches off the coffee machine.
2	Type A USB port	The USB port on the coffee machine serves as an interface for data exchange. Data such as configuration files can be exported using this port. This allows the user to quickly and easily transfer settings or other information to a USB stick or other storage medium. This makes it possible to quickly and easily adapt the coffee machine to individual needs.
3	Locking handle for bean hopper	The locking mechanism of the bean hoppers locks or unlocks all three bean hoppers simultaneously. The handle [3] is used to unlock or lock.
4	ProCare front door	The ProCare cleaning system cleans the coffee path from the brewing unit to the beverage outlet. The cleaning product (basic) is behind the front door of the ProCare.



See also chapter "Product description" – "Overview of coffee machine" – "Bean hoppers".

5.2 User interface

5.2.1 "Main menu" page

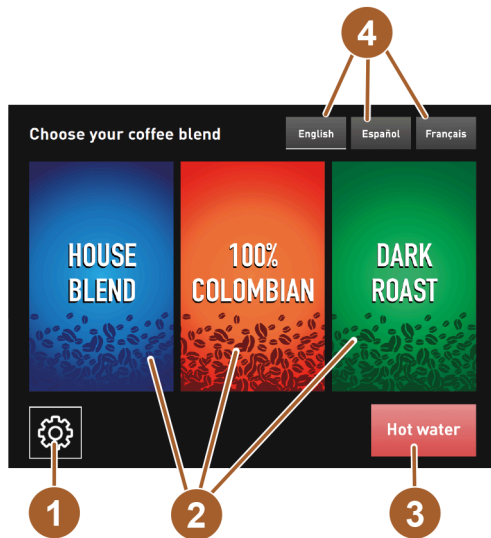


Image: Main menu

No.	Name	Explanation
1	[Service menu] button	The [Service menu] button is used to call up the Service menu. It has a hidden function that is activated by tapping the button for at least 2 seconds. Then the Service menu is called up by tapping the button again.
2	[Coffee type] button	Selection of individual coffee types and roasts. The selected type starts the corresponding menu navigation up to beverage dispensing.
3	[Hot water] button	If the user taps the [Hot water] button and holds it down, hot water is dispensed. As soon as the user releases the button, hot water dispensing is stopped.
4	[Language selection] button	The buttons allow the user to select the language of the user interface. The user interface is then automatically displayed in the selected language.

5.2.2 “Selecting hot/cold beverage” page

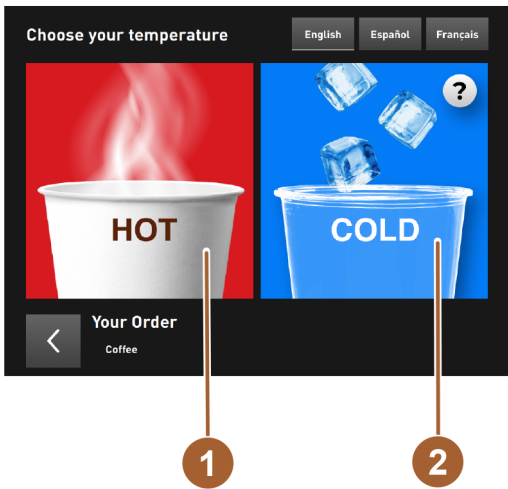


Image: Selecting hot/cold beverage

No.	Name	Explanation
1 – 2	Hot/Cold beverage	The desired temperature for beverage dispensing can be selected here. There are two options to choose from: Hot [1] or cold [2].

5.2.3 “Choosing cup size” page

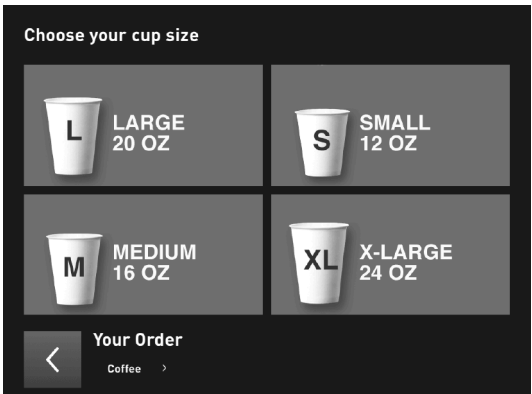


Image: Choosing cup size

No.	Name	Explanation
	Selecting cup size	The desired cup or mug size can be chosen simply by selecting one of the available fields. These settings are programmed by a qualified service technician to ensure that the beverages are always dispensed in the correct quantity and size.

5.2.4 “Selecting fill level and recipe” page

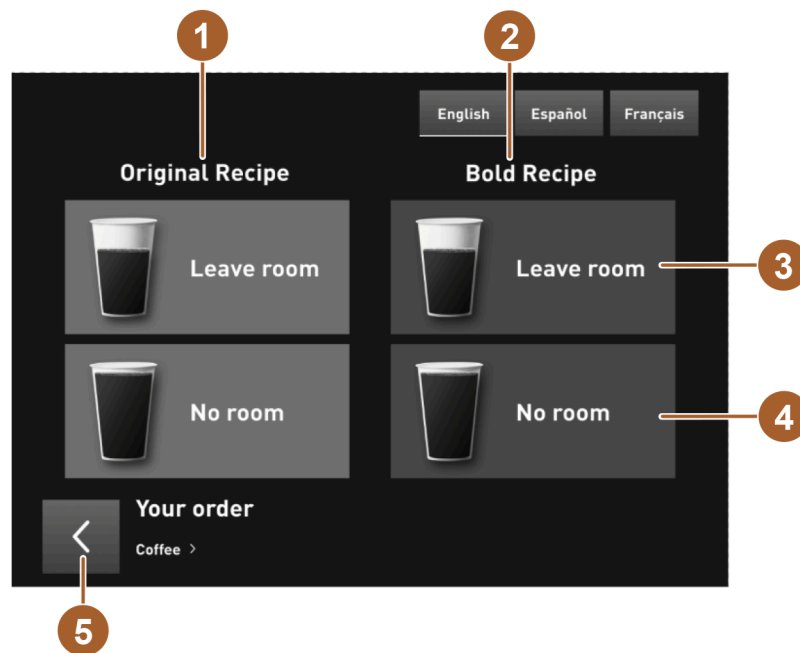


Image: Selecting fill level and recipe

No.	Name	Explanation
1 – 2	Recipe group	Two different recipe groups are available: “Original” and “Bold”. The “Original” recipes are classic, tried-and-true blends, while the “Bold” recipes have a slightly bolder flavour.
3 – 4	[No room] or [With room] field	When selecting the recipe, there are also the [No room] or [With room] options. For [With room], the cup or mug is not completely filled; instead some room is left for additional ingredients such as milk or sugar. For [No room], the cup or mug is completely filled with the beverage without leaving any additional space.
5	[<] Back field	The field selection contains a button with a [<] symbol that allows the user to return to the previous selection. Tapping this button navigates the user to the previous selection screen. Tapping the “<” button several times will eventually return the user to the main menu of the application.

5.3 Service menu

5.3.1 [Service menu] button

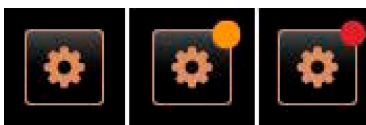


Image: [Service menu] button

The [Service menu] button opens the Service menu.

The [Service menu] button in the user interface provides information about pending information or error messages:

- Without colour code: There are no messages in the Service menu.
- Orange: Information is pending in the Service menu.
- Red: Error messages or action requests are pending in the Service menu.

5.3.2 Overview



The service technician can limit access to the Service menu with a PIN. This configured PIN corresponds to the PIN of the operator.

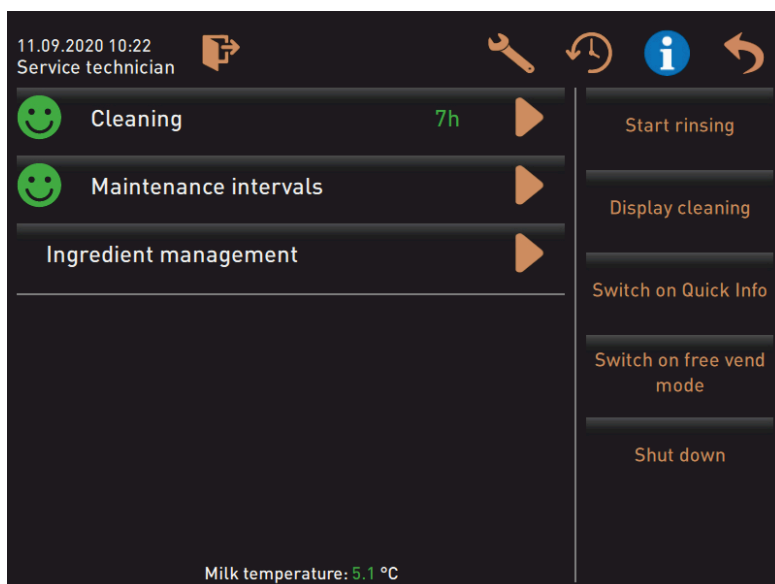


Image: "Service menu" view

Functions and information:

- Pending action requests (cleaning/descaling)
- Pending error messages
- Ingredient management
- Beverage dispensing history
- Direct selection functions
- Logging in with profile
- System information

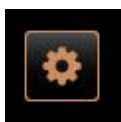


Image: [Service menu] button

- Tap on the [Service menu] button at the bottom left of the user interface.
 - ✓ The Service menu appears.

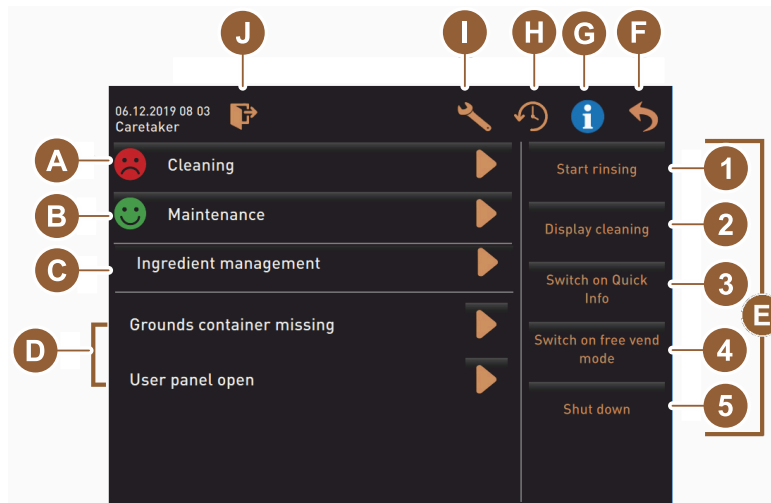


Image: "Service menu" window view

Pending messages:

- [A] Cleaning status and button for starting cleaning
- [B] Maintenance and field for carrying out maintenance
- [C] Ingredient management
- [D] Pending error messages and action requests
- [E] Button for direct selection
 - 1 [Start rinsing]
 - 2 [Touch screen cleaning] (30 s)
 - 3 [Switch Quick Info on/off]
 - 4 [Switch on free vend mode] (with activated payment system)
 - 5 [Shut down]

- [F] [Back] takes you back to the user interface
- [G] [Info] System information including QR code (Quick Response Code)
- [H] [Beverage dispensing history] list of dispensed beverages
- [I] [Settings] takes you to the machine configuration
- [J] [Log-in/Log-out] profile selection and log-in/log-out profile



If an error is detected while the machine is being restarted, the Service menu is displayed straight away.

5.3.3 [Log-in/Log-out] profile

Access rights for functions and parameters are adjusted as appropriate in line with each profile.



See chapter "Programming", e.g. "Caretaker profile" for a detailed overview and description of the profiles.

Variant: Access to Service menu without PIN entry

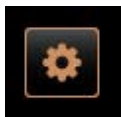


Image: [Service menu] button

- ▶ Press the [Service menu] field at the bottom left of the user interface.
 - ✓ The Service menu opens with the last activated user profile, or without an active profile (not logged in).

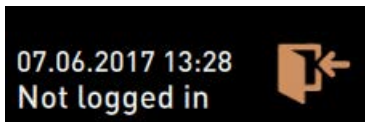


Image: No profile is logged in

Variant: Access to Service menu with PIN entry

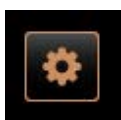


Image: [Service menu] button

Prerequisite

- Access to the Service menu is protected by a PIN configured by the service technician.
1. Press the [Service menu] field at the bottom left of the user interface.
 - ✓ The numeric keypad for PIN entry appears.
 2. Enter the configured PIN number and confirm.
 - ✓ The Service menu opens without an active user profile.
 - ✓ All direct selection functions, with exception of "Free vend", are available for selection.
 - ✓ "Info" – "Show versions" is available in the settings.

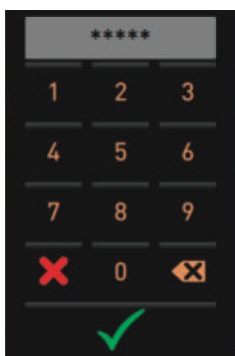


Image: Numeric keypad



Image: No profile is logged in

Profile overview access window



If the Service menu is closed, the currently logged-in profile is retained. The registered profile is logged out (log-out) after the [Log-out] field is pressed or after a restart.

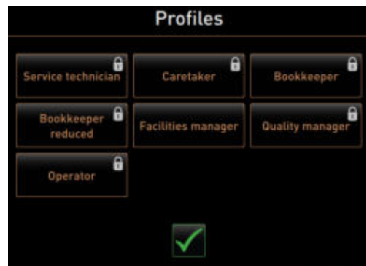


Image: [Log-in] field

- ▶ Select the [Log-in] field at the top of the Service menu.
 - ✓ The window with the profiles configured by the service technician opens.
 - ✓ Profiles protected with a PIN are marked with a lock symbol.

The following profiles can be provided by the service technician:

- Caretaker
- Bookkeeper
- Bookkeeper reduced



- Facilities manager
- Quality manager
- Operator

Profiles marked with a lock are PIN-protected.

Variant: Activating unprotected profile

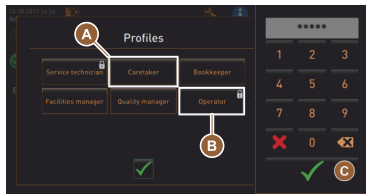


Image: Profile without PIN

- Select desired unprotected profile [A], e.g. Caretaker.
 - ✓ The Service menu is displayed with the active "Caretaker" profile.
 - ✓ The functions available in the Service menu correspond to the selected profile.



See chapter "Profiles and authorisations" for detailed information on the functions of the individual profiles.

Variant: Activating protected profile

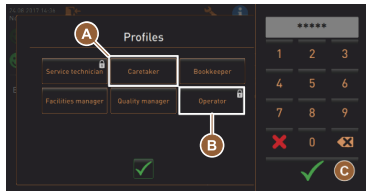


Image: Profile with PIN

Prerequisite:

- The field (e.g. "Operator" profile) is protected by a PIN and is marked with a lock symbol.
1. Activate protected profile, e.g. Operator [B].
 - ✓ The keypad for PIN entry opens.
 2. Enter the configured PIN and confirm using the [OK] [C] field.
 - ✓ The Service menu appears as per the selected profile.

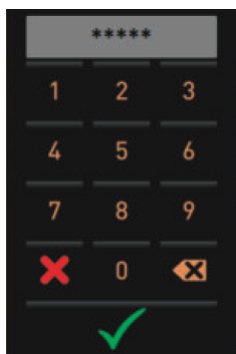


Image: Numeric keypad



The service technician can activate profiles. Every profile has specific authorisations. Logging in with a profile can be protected with a PIN. The service technician can configure a PIN and assign it to the profile.



See chapter "Profiles and authorisations" for detailed information on the specific functions.

Profile log-out



Image: [Log-out] field



Image: No profile is active.

- Select the [Log-out] field at the top of the Service menu.
 - ✓ The currently logged-in profile is logged out.
 - ✓ Any authorisations become invalid.
 - ✓ "Not logged in" appears in the Service menu.

5.3.4 Settings



This function is PIN protected.



Image: Settings

The [Settings] field (1) calls up the "Settings" page. The parameters of the coffee machine can be set there.

See also chapter "Programming" for a detailed description.

5.3.5 Beverage dispensing history



The values given for the dispensing times are typical values. They may vary due to factors such as grind quantity, grinding level, water temperature and coffee type.

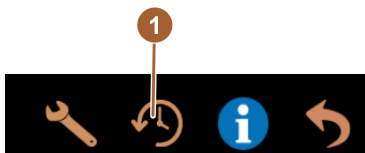


Image: Beverage dispensing history

The [Beverage dispensing history] field (1) calls up a window in which all the beverages already dispensed are listed.

The corresponding dispensing time and the pure dispensing time [coffee] are displayed for each dispensing.

5.3.6 System information

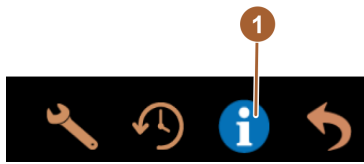


Image: System information

The [System information] field (1) calls up the system information page in a separate window. A QR code with system information is displayed.

5.3.7 Back



Image: Back

The [1] field takes you back to the user interface. The registered profile is logged out in the process.

5.3.8 Cleaning



Image: Cleaning

The [Cleaning] field shows the cleaning status of the coffee machine with a smiley:

- Green smiley: The coffee machine does not have to be cleaned.
- Red smiley: The coffee machine must be cleaned.

5.3.9 Maintenance intervals



Image: Maintenance intervals

The [Maintenance interval] field shows the maintenance status of the coffee machine with a smiley:

- Green smiley: Maintenance work does not have to be done on the coffee machine.
- Red smiley: Maintenance work has to be done on the coffee machine.

5.3.10 Ingredient management

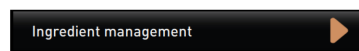


Image: Ingredient management

The [Ingredient management] field calls up the ingredient management. Available ingredients can be enabled/disabled in ingredient management.

5.3.11 Error messages area

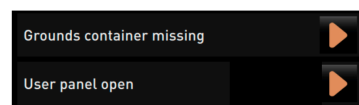



Image: Error messages area

Pending coffee machine errors are reported in the error messages area. The  field can be used to start troubleshooting directly.



The service technician has an overview of events in the "Info" – "Error statistics" main menu.

5.3.12 Direct selection area

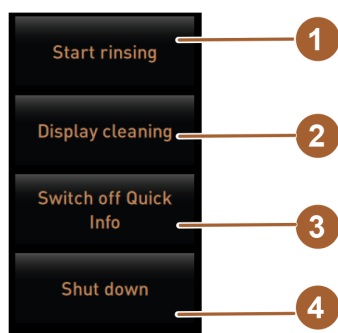


Image: Direct selection area

The [Start rinsing] field (1) starts the coffee machine rinsing process.



See chapter "Cleaning" – "Rinsing intervals".

The [Touch screen cleaning] field (2) locks the touch screen for 30 seconds. The touch screen is not sensitive during this time and can be cleaned.

The [Switch quick info on/off] field (3) switches the "Quick info" window in the user interface on or off.

The "Quick info" window is displayed at the top left when it is switched on.

The [Shut down] field (4) switches the coffee machine off. The field can be used as an alternative to the on/off switch of the coffee machine (behind the user panel).

✓ The coffee machine is shutting down and the display is inactive. The coffee machine is **not** de-energised.

5.3.13 Quick info

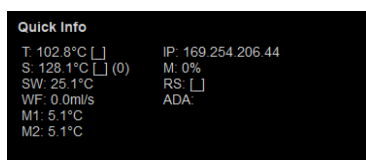


Image: "Quick info" window

The "Quick info" window contains an additional text window that displays current status messages such as connection monitoring when telemetry is active.

5.4 Opening and closing user panel



CAUTION

Danger of crushing by falling user panel!

The user panel can fall on account of its own weight.

► Hold the user panel and move it up or down in a controlled manner until it clicks into place.

5.4.1 Opening user panel



Image: Bedienpanel öffnen

1. Move the key to the horizontal position in the closing device [A].
✓ The lock is open [B].
2. Unlock user panel top [C] by pulling with force.
✓ The user panel is unlocked.
3. Push the user panel from below [D] using both hands until it snaps into place.
✓ The user panel is automatically held in the upper position.



- ✓ All operating elements [E] behind the user panel are now accessible.

Image: Bildlegende

5.4.2 Close user panel

Prerequisite:

- The coffee machine is only ready for use when the user panel is closed.
1. Gently guide the open user panel downwards up to the stop.
 2. Gently press the upper edge of the user panel in.
 - ✓ The user panel locks and is closed.
 3. If necessary, lock the closing device with the key.

5.5 Switching on

5.5.1 Check before switching on



ADVICE

Material damage due to closed water supply line!

The coffee machine can get damaged if the water pump runs dry.

- ▶ Before switching on the coffee machine, make sure that the main water valve (water tap) of the water supply is open.
-
- ▶ With mains water supply: Make sure that the main water valve is open.
 - ▶ With standard waste water outlet: Ensure that the waste water hose is laid properly.
 - ▶ Make sure that the bean hoppers are full.
 - ▶ Make sure that the grounds container is empty and correctly inserted.
 - ▶ Make sure that the coffee machine is correctly connected to the manufacturer-side mains power supply in accordance with national and local safety regulations.

5.5.2 Switching on coffee machine

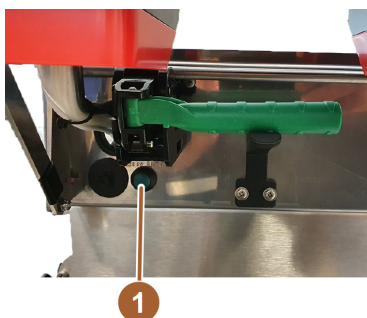




Image: Coffee machine on/off switch

- ▶ Check the mains connection of the coffee machine.
- ▶ Open the user panel.
 -  See chapter "Operation" – "User panel" – "Opening user panel".
- ▶ Briefly press the on/off switch of the coffee machine [1].
 - ✓ The coffee machine starts.
 - ✓ The touch screen user interface appears in the touch screen, the machine begins to heat up.
 - ✓ The coffee machine is ready for use as soon as the required temperature is reached.
- ▶ Close user panel.
 -  See chapter "Operation" – "User panel" – "Closing user panel".



When the coffee machine is switched on for the first time, display-guided setup of the machine configuration and hardware calibration follow automatically.



CAUTION

Risk of infection from contamination!

Contamination can lead to health problems.

- ▶ Cleaning must always be done after installation, commissioning or recommissioning.
- ▶ Run the display-guided cleaning programme before dispensing the first beverage.

5.6 Filling and connecting



When refilling, select the max. filling quantity so that the contents do not touch the container cover.

5.6.1 Filling bean hopper



CAUTION

Danger of injury due to rotating grinding discs!

There is a risk of cuts due to rotating grinding discs in the grinder.

- ▶ Never reach into the bean hoppers while the coffee machine is switched on.



ADVICE

Clogging and blocking hazard!

Filling the hopper with foreign objects can lead to clogging, blocking or destruction of the grinder.

- ▶ Never fill the bean hopper with anything other than coffee beans.



When refilling, select the maximum fill level so that the contents do not touch the container cover.



Image: Bean hopper

1. Remove the cover from the bean hopper.
2. Fill the bean hopper.
ADVICE Observe the maximum fill level.
3. Close the bean hopper with the cover.
✓ The bean hopper is refilled.

5.7 Selecting beverage

The SOUL C has a simple menu selection concept. Incorrect entries can be corrected by simply selecting the [Back] field without immediately returning to the main menu.

Cancellation of beverage selection after inactivity

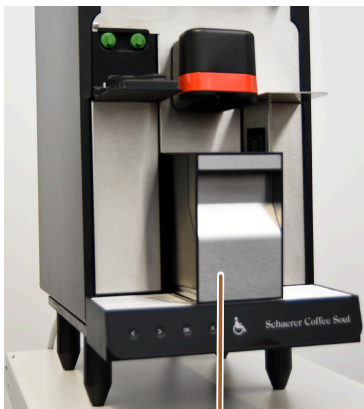


Beverage selection can be automatically cancelled after a period of inactivity of 5 – 40 s. The user interface is displayed so that a new beverage can be selected. The service technician can adjust the time span in the "Configuration" – "Operating mode" – "Resetting time-out selection" setting.

5.8 Emptying grounds container



The grounds container contains about 25 – 35 coffee cakes. After this number has been reached, the instruction for emptying the grounds container appears in the user interface.



1

Image: Emptying grounds container

- ▶ Pull the grounds container [1] out of the coffee machine towards the front.
✓ This prevents accidental beverage dispensing.
✓ The "Grounds container missing" message appears on the display.
- ▶ Empty and clean the grounds container.
- ▶ Dry the grounds container and reinstall it, pushing it in until it snaps into place in the coffee machine.
✓ The coffee machine is ready for use again.

5.9 Shutting down

5.9.1 Shutting down via direct selection area

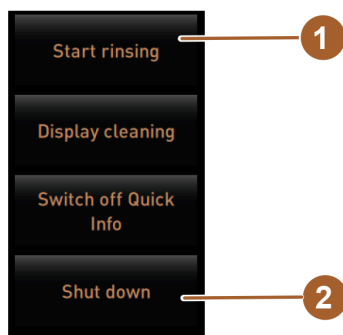


Image: Direct selection area

Cleaning before shut down

- ▶ Select the [Start rinsing] field [1] in the Service menu if it has not already been done.
 - ✓ Cleaning is started.
- ▶ Shut down the coffee machine directly in the cleaning programme.
- ▶ Carry out further cleaning if necessary.



See chapter "Cleaning" for more detailed information.

Shutting down using touch screen

- ▶ Select the [Shut down] field [2] in the Service menu.
 - ✓ The coffee machine is shut down.
 - ✓ The display does not show anything.
 - ✓ The coffee machine is in Standby mode.

5.9.2 Shutting down using on/off switch

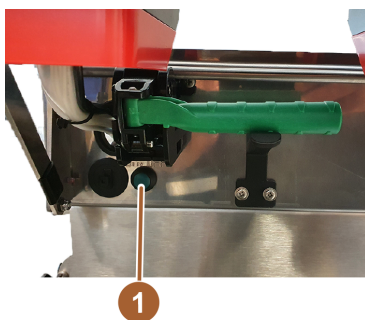


Image: Coffee machine on/off switch

Shutting down using coffee machine on/off switch

- ▶ Open the user panel.
 - See chapter "Operation" – "Opening user panel".
- ▶ Press the on/off switch of the coffee machine [1] for 4 seconds.
 - ✓ The coffee machine is shut down.
 - ✓ The display does not show anything.
 - ✓ The coffee machine is in Standby mode.
- ▶ Close user panel.



See chapter "Operation" – "Closing user panel".



DANGER

Risk of death due to electrocution!

Even when the machine is shut down, there are live parts present in the machine.

- ▶ Do not remove machine casings.
- ▶ Always unplug the machine from the mains before doing repair work.

5.9.3 Lengthy downtimes (more than 1 week)



If the coffee machine is not used for a longer period of time, take the coffee machine and the optional accessories out of operation.

1. Switch the coffee machine to standby.

See chapter "Operation" – "Shutting down" – "Switching coffee machine to standby".

2. Disconnect the mains connection. To do this, pull out the mains plug or switch off the main switch mounted on the installation side.
 - ✓ The coffee machine is de-energised.

**ADVICE****Material damage due to frozen water!**

The boilers can be destroyed by freezing water as it expands.

- ▶ If the coffee machine is exposed to temperatures below freezing, drain the boiler beforehand.
- ▶ Contact your service partner.

6 Programming

6.1 Navigation



Image: Service menu

User interfaces

- Select the [Setting] field at the bottom left of the user interface [A].
- ✓ The Service menu [B] opens.

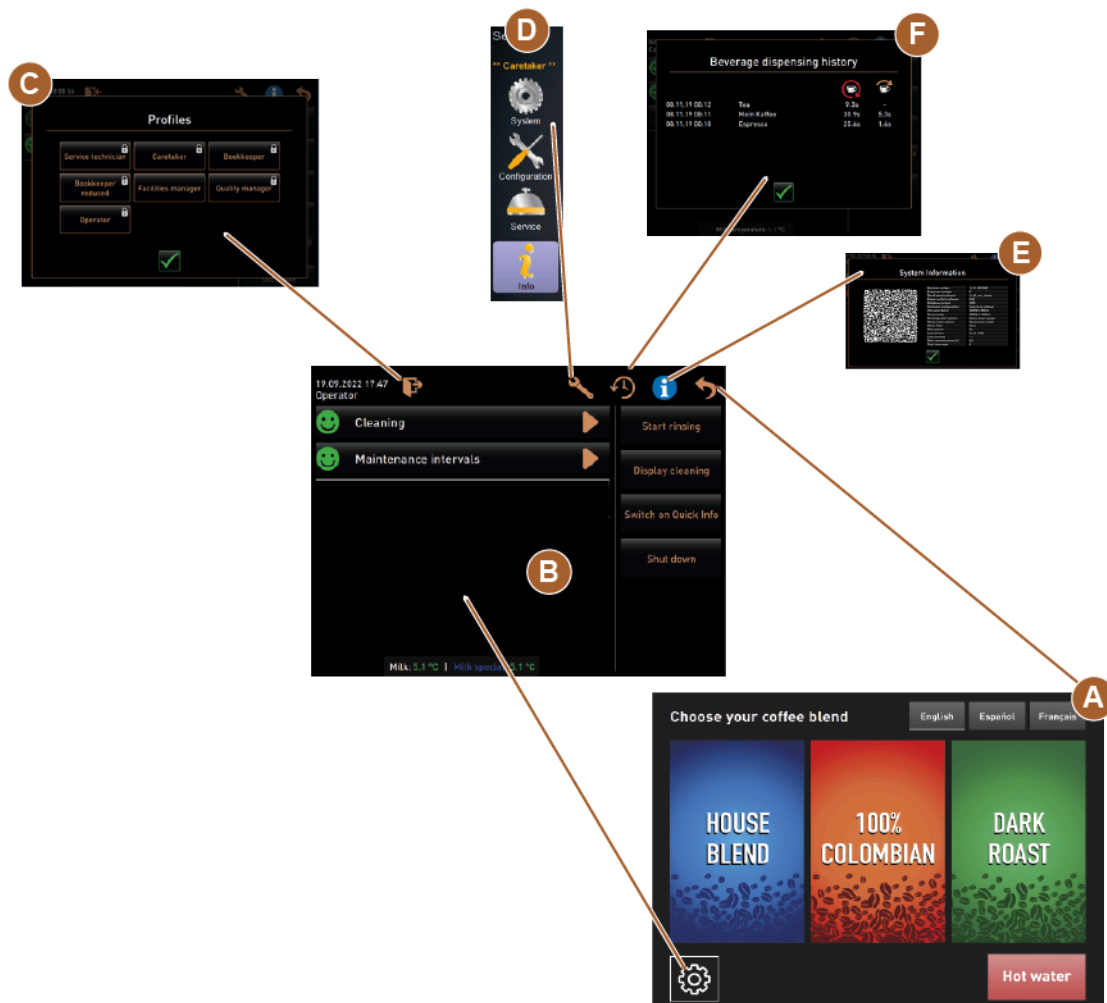


Image: User interface navigation

The navigation behind the graphical user interface [GUI] consists of the following elements:

- [A] Graphical user interface [GUI] selection of coffee type
- [B] Navigation elements in the service menu
- [C] Selection of activated profiles
- [D] Machine configuration settings
- [E] System information
- [F] Beverage dispensing history

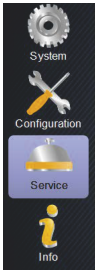


















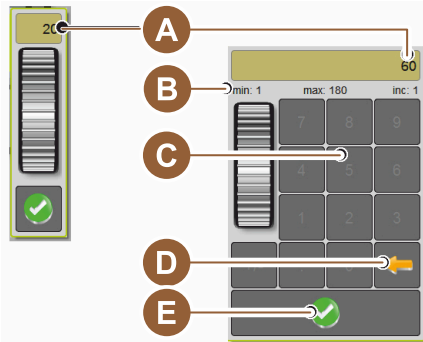

Image: Service menu with maintenance and error status


1. Cleaning status and start
2. Maintenance status and start
3. Ingredient management status and on/off
4. ... 5 etc. pending error messages

Navigation elements

Symbol	Designation	Description
	Service menu entry	The [Service menu] field at the bottom left of the user interface opens the "Service menu". <i>See chapter "Scope of functions".</i>
	Back to beverage selection user interface	The [Back] field takes you back to the beverage selection user interface.
	System information	The [Info] field opens the window for the system information. <i>See chapter "Scope of functions".</i>
	Beverage dispensing history	The [Beverage dispensing history] field shows all beverages which have already been dispensed. The following information is displayed for each beverage: <ul style="list-style-type: none"> ▶ Beverage dispensing duration ▶ Beverage dispensing time <i>See chapter "Scope of functions".</i>
	Main menu settings	The [Settings] field at the top right of the "Service menu" opens the window with the parameters for configuring the machine. <i>See chapter "Scope of functions".</i>
	User profile log-in	The [Profile log-IN] field opens the window for selecting the available profiles. The profiles have different access rights. <i>See chapter "Scope of functions".</i> <ol style="list-style-type: none"> 1. Select [Profile log-IN]. <ul style="list-style-type: none"> ✓ The window for selecting a profile opens. 2. Select a profile and, if configured, enter the PIN. <ul style="list-style-type: none"> ✓ The Service menu appears again. ✓ The [Profile log-IN] field changes to [Profile log-OUT]. <p>INFORMATION: If a profile with corresponding authorisations is logged in, the [Settings] field appears.</p>
	Log-out Operator profile	The [Profile log-OUT] field closes the currently registered profile. INFORMATION: The "Settings" field is no longer available.

Symbol	Designation	Description
	Machine configuration settings	<p>The machine configurations are divided into the following settings:</p> <ul style="list-style-type: none"> • System • Configuration • Service • Info <p>The parameters displayed here depend on the authorisations of the selected profile.</p> <p>INFORMATION: The "Service technician" profile lists all settings and configuration options.</p> <p>1. Select setting, e.g. [System].</p> <ul style="list-style-type: none"> ✓ The currently active setting, e.g. [System] is highlighted in colour. ✓ The available settings [A] are listed at the right of the window. <p>See also chapter "Profiles and authorisations"</p>
	Restart	<p>The [Restart] field activates a coffee machine restart.</p> <p>A restart is required after the machine configurations have been run.</p>
	Configuration	<p>The [Configuration] field opens the configuration window for:</p> <ul style="list-style-type: none"> • Ingredient sources • Beverages • Beverage step for specific settings
	Activation/ Confirmation	<p>The [Activation/Confirmation] field confirms the selection of an assigned coffee type or temperature setting, for example.</p>
	Remove	<p>The [Remove] field removes the following functions:</p> <ul style="list-style-type: none"> • Reset counter • Cancel beverage dispensing • Close window/page
	Action request confirmation	<p>Executed action requests can be confirmed with the [Confirmation] field.</p>
	Next	<p>The [Next] field opens a selection list or leads back to the next programme step.</p>
	Back	<p>The [Back] field takes you back to the previous page/window.</p>
	Save	<p>The [Save] field saves any parameter settings made.</p>
	Copy	<p>The [Copy] field copies a beverage that has already been configured as a basis for other beverage configurations.</p>

Symbol	Designation	Description
	Add	The [Add] field adds beverages or beverage steps. INFORMATION: The beverages are removed from the list of available beverages. The additional beverage is automatically added to the list of configured beverages.
	Beverage step configuration	The [Beverage step configuration] field leads to the settings of the beverage configuration with the single beverage steps.
	Open/Close structure tree	The [+] field opens the structure tree in the statistics. The [-] field closes the structure tree in the statistics.
	Input field	The "Input field" can be used to enter the name for the beverage, beverage group, ingredients or for the menu cards using a displayed keyboard. ADVICE Tapping on the input field opens the keyboard.
	Keyboard	Keyboard for entering text or numbers in the input field. <i>See also "Input field" above.</i>
	Parameter value	<p>The [Parameter value] field switches the value of a parameter back on.</p> <p>Variant: Setting with control dial</p> <ol style="list-style-type: none"> 1. Tap on parameter value. ✓ The control dial opens. 2. Set the desired value by turning the control dial up and down. 3. Confirm set value with the  field. <p>Variant: Setting with keyboard</p> <ol style="list-style-type: none"> 1. Touch the field containing the current setting [A]. ✓ The keyboard entry opens. ✓ Min. and max. values of the possible settings are displayed [B]. 2. Remove current setting with field [D]. ✓ The numeric keypad is activated. 3. Enter the new value on the keyboard [C]. 4. Confirm the value with field [E].
		
		<i>Image: Input of parameter value using keyboard</i>
	On/Off function	<p>The [On/Off] field activates or disables a function.</p> <p>Lit up green = On Matt grey - Off</p>

Symbol	Designation	Description
	Arrow down, arrow up value setting	<p>The factory setting for the time and date is made using the [Arrow down] or [Arrow up] fields.</p> <ol style="list-style-type: none"> 1. Tap on the value to be set with your finger. <ul style="list-style-type: none"> ✓ The value is marked. 2. Select the marked value with the [Arrow up/down] field. <ul style="list-style-type: none"> ✓ The time or date is set. 3. Press the [Save] field. <ul style="list-style-type: none"> ✓ The settings are active.

6.2 USB interface

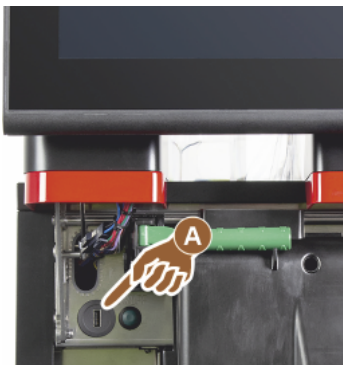



Image: USB-Schnittstelle

 USB-Anschluss

In the Schaerer Coffee Soul, software updates, data storage or data exchange are performed using a USB stick. The USB port is located behind the user panel.

► Unlock the user panel and slide it upwards until it automatically snaps into place.

✓ The USB port [A] is at the left next to the On/Off button.

See also chapter "Opening user panel".

6.3 Profiles and authorisations



Image: Log-in

Profile log-IN overview

The following predefined profiles are available for the end user in the "Service menu" under [Profile log-in].

- Caretaker profile
- Facilities manager profile
- Quality manager profile
- Operator profile



The profiles can be activated/disabled by a service technician.

ADVICE Access to the profile can be protected with an assigned PIN (personal identification number). The "Service technician" profile may only be accessed by the service technician.



See chapter "Operation" – "Main touch screen window" – "[Log-in/Log-out] profile".



This chapter contains a detailed description of the individual profiles.

6.3.1 Caretaker profile

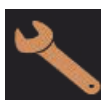
The caretaker is the first person to contact in the event of technical problems. He or she possesses sound technical knowledge and works regularly with the coffee machine. The caretaker has access to most service functions (apart from the service technician).



Image:
[Service
menu]
button

In the Caretaker profile, the following functions are available for direct selection in the Service menu:

- Starting rinsing
- Touch screen cleaning
- Switching quick info on/off
- Shutting down
- Cleaning
- Maintenance intervals
- Ingredient management



The following settings can be changed in the Caretaker profile:

- System
- Configuration
- Service
- Info

6.3.2 Bookkeeper profile

The "Bookkeeper" and "Bookkeeper reduced" have limited service functions.

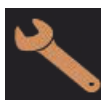


Image:
[Service
menu]
button

In the Bookkeeper profile, the following functions are available for direct selection in the "Service menu":

- Starting rinsing
- Touch screen cleaning
- Switching quick info on/off
- Switch on free vend mode if there is a payment system (bookkeeper)
- Shutting down
- Starting maintenance (descaling)
- Ingredient management

See also chapter "Service menu"



The Bookkeeper profile contains the following settings:

- Configuration
- Info



See chapter "[Log-in/Log-out] profile"

6.3.3 Facilities manager profile

The "Chef de Service" has limited access to service functions.

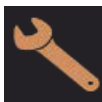


Image:
[Service
menu]
button

In the Facilities manager profile, the following functions are available for direct selection in the "Service menu":

- Starting rinsing
- Touch screen cleaning
- Switching quick info on/off
- Shutting down
- Starting maintenance (descaling)
- Ingredient management

See also chapter "Service menu"



The Facilities manager profile contains the following settings:

- Configuration
- Info



See chapter "[Log-in/Log-out] profile"

6.3.4 Quality manager profile

The quality manager is responsible for the quality of the beverages from the coffee machine. Monitoring cleaning times is particularly important to ensure quality.

The quality manager has limited access to the service functions. The quality manager has more statistics at its disposal than the operator.

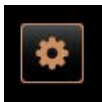
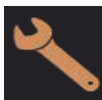


Image:
[Service
menu]
button

In the Quality manager profile, the following functions are available for direct selection in the Service menu:

- Starting rinsing
- Touch screen cleaning
- Switching quick info on/off
- Shutting down
- Maintenance intervals
- Ingredient management



The following settings can be changed in the Quality manager profile:

- Configuration
- Info

6.3.5 Operator profile

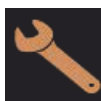
The operator is the normal operator of the coffee machine and therefore only a few service functions are available in this profile. Apart from setting the language, it can view the machine version in order to pass on the information to a service technician when errors occur.



Image:
[Service
menu]
button

In the Operator profile, the following functions are available for direct selection in the Service menu:





- Starting rinsing
- Touch screen cleaning
- Switching quick info on/off
- Shutting down
- Cleaning
- Maintenance intervals
- Ingredient management



The following settings can be changed in the Operator profile:

- Configuration
- Info

6.3.6 Overview of profile authorisations

Settings	Parameter	Care-taker	Book-keeper (reduced)	Facilities manager	Quality manager	Operator
	Grinder / brewing unit					
	• Grounds container capacity [50]	x	-	-	-	-
	• Grounds container emptying time [5]					
	• Current grounds container counter					
	Centre, right grinder calibration value					
	General (language)	x	x	x	x	x
	Time/Date/Timer (Monday to Sunday)	x	-	-	-	-
	Menu card (beverage field)	-	x	x	-	-
	Grinder service	x	-	-	-	-
	Backup database	x	-	-	-	-
	Show versions	x	x	x	x	x
	Machine counter	x	-	x	-	-
	Beverage statistics	x	x	x	-	-
	Cleaning statistics	x	-	x	x	-
	Maintenance statistics	x	-	-	-	-
	Dispensing statistics	x	x	x	-	-
	Water hardness statistics	x	-	-	-	-
	Machine accounting statistics	x	x	x	-	-

6.4 Machine configuration

The machine configurations are divided into the following settings:

- System
- Configuration
- Service
- Info

6.4.1 "System" settings

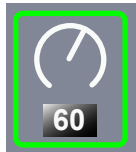
Grinder / brewing unit

Authorised profiles: Caretaker



Settings > "System" – "Grinder / brewing unit"

Grounds container: Capacity



Setting of the number of cycles (coffee cakes) until the "Empty grounds container" message appears

Setting range: 0 – 100

Standard: 60 (coffee cakes)

ADVICE Do not exceed the standard setting of 60 coffee cakes.

- ▶ Standard: Value is set to 50 cycles.
- ▶ "Grounds disposal" option: Value is set to 0 cycles.
 - ✓ The number of cycles (coffee cakes) is ignored.

INFORMATION: The coffee machine blocks dispensing of coffee beverages after 65 brewing cycles (+ 5) until the grounds container is emptied.

Grounds container: Emptying time [s]



Setting of the amount of time that should elapse before the "Current grounds container counter" is reset to 0 after it is emptied

Setting range: 0 – 30 s

Standard: 5 s

1. Set value to 5 cycles.
2. Empty the grounds container when the corresponding instruction is shown in the display.

INFORMATION: If the grounds container is only briefly pulled out and immediately pushed back in, the counter value is retained and it is not reset.

3. Replace the emptied grounds containers at the earliest after 5 sec.
 - ✓ The "Current grounds container counter" is reset to 0.

6.4.2 "Service" settings

Exporting and backing up media files



ADVICE

Property damage due to data loss

The touch screen contains an SD memory card for storing the machine data.

- ▶ Before a touch screen is replaced, the database must be saved on a USB stick.
- ▶ The previously used SD memory card can be inserted into a newly installed touch screen. This ensures that the system is immediately ready for use.

The following two backup options are available:

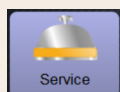


- ▶ Backing up database

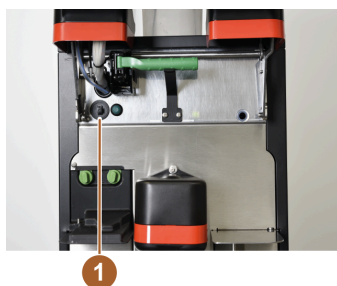
The files are only backed up with this option.

- ▶ Exporting configuration package (recommended)

With this option, files and media are saved.



Exporting settings > Backing up database



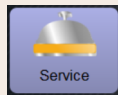
1. Lift user panel.
2. Insert the USB stick into the USB interface (1).
3. Settings: Select "Service" – Exporting settings" – "Backing up database".
 - ✓ The machine database is saved onto the USB stick.
 - ✓ The saved database version is compatible with the installed machine software version.
4. The "Database back-up complete" information message appears in the display. Remove the USB stick.
5. Close user panel.

The database is saved on the USB stick in the "Schaerer" – "SCA3" – "backup" – "database" – "sca3db.db3_20170623_112422" folder structure.

ADVICE The database is automatically saved on the SD memory card inserted in the touch screen every 5 min. It is also saved directly on the motherboard at the same time. As a general rule, the database must always be saved on a USB stick before carrying out an update. This saved database version is compatible with the older machine software should you ever need to carry out a "downgrade".

The following data is stored on the USB stick:

- Machine number
- Beverage recipes
- Hardware configuration
- All beverage counters



Exporting settings > Exporting configuration package



1. Lift user panel.
2. Insert the USB stick into the USB interface (1).
3. Settings: Select "Service – Exporting settings – Exporting configuration package".
 - ✓ The machine database is saved onto the USB stick.
 - ✓ The saved database version is compatible with the installed machine software version.
4. The "Database back-up complete" information message appears in the display. Remove the USB stick.
5. Close user panel.

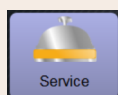
The database is saved on the USB stick in the "Schaerer" – "sca3" – "backup" – "database" – "sca3_20230413_153320.cp" folder structure.

ADVICE The database is automatically saved on the SD memory card inserted in the touch screen every 5 min. It is also saved directly on the motherboard at the same time. As a general rule, the database must always be saved on a USB stick before carrying out an update. This saved database version is compatible with the older machine software should you ever need to carry out a "downgrade".

The following media and data are stored on the USB stick:

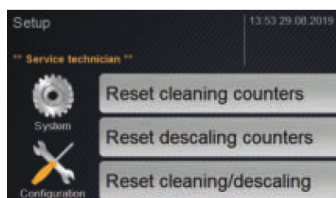
- Machine number
- Beverage recipes
- Hardware configuration
- All beverage counters
- Stored media

Resetting cleaning




Setting > "Service" – "Resetting descaling/cleaning"

Resetting cleaning



Delete cleaning flag. Any cancelled cleaning is reset.

1. Select "Service" setting.
2. Select the "Service" – "Resetting cleaning" setting.
3. Confirm the "Reset cleaning" procedure with the  field.
 - ✓ The cleaning flag is reset and any pending descaling operation is deleted.
 - ✓ The next automatic cleaning operation is only performed in line with what has been configured in the "System" – "Cleaning" and "System" – "Maintenance" setting.
4. It is absolutely essential to restart cleaning right away.

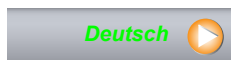
6.4.3 "Configuration" settings

Authorised profiles: Caretaker, facilities manager, bookkeeper, bookkeeper reduced, operator and quality manager



Setting > "Configuration" – "General"


Main language



Changes the display language.

Setting range: All provided languages.

Standard: Free selection.

1. Open selection menu using the [] field.
 - ✓ The options menu appears.
2. Select the desired language.
 - ✓ All display messages and parameter names appear in the activated language.

See also chapter "Saving changes and loading them into coffee machine".

Authorised profiles: Caretaker



Setting > "Configuration" – "Time / date / timer mode"

Date

Time

Time zone



Information about the preset time zone with time and date

Setting range: No setting possible

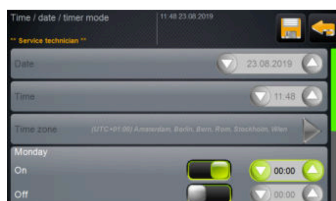
Standard: Country-specific/User-specific

The time zone is selected while the commissioning programme is running. When the time zone is set, the time and date from the selected time zone are applied.

Available time zones:

- Asia
- Africa
- Australia
- Europe
- North America
- South America

Each time zone contains sub-divisions, e.g. "Central European Time (CET/MEZ)".

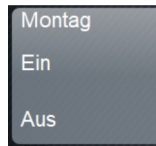




Setting > "Configuration" – "Time / date / timer mode"

Monday On/Off to

Sunday On/Off



Information about the automatic switch-on/off times

Setting range: Day/Switch-on time/Switch-off time/Time

Standard: User-specific

1. Activate the switch-on time for the desired weekday with the field.
✓ The setting window for the time is active.
2. Set time with the fields, e.g. 07:00 (7:00 AM).
3. Activate the switch-off time for the desired weekday with the field.
✓ The setting window for the time is active.
4. Set time with the fields, e.g. 22:30 (10:30 PM).

Depending on the selected time zone, the respective time format (24 h or 12 h AM/PM) is automatically selected.

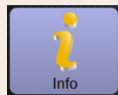
6.4.4

"Info" settings

Authorised profiles: Caretaker, facilities manager, quality manger and operator



When reporting an error, please pass this information on to the service technician.



Setting > "Info" – "Showing versions"

Showing versions

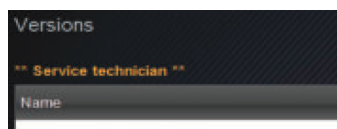


Image: Versions

Versions	
** Service technician **	
Name	
Software Touchpanel	SCS_4.10.0.mobiSim (Created: 2018-11-26 08:03)
Software Leistungsteil	0.0
Version Datenbank	2068
BSP-Version	N/A
MAC Adresse	54:EE:75:7A:D1:60
Qt version	5.2.1 (Qtcode: info@schaerer.com)
Qt license	GNU LGPL version 2.1
SQLite Version	3.7.17
Software SCA3	Copyright 2017 Schaefer Ltd., Switzerland. All rights reserved.

Provides information about the installed versions of the machine software

Setting range: No setting possible

Standard: –

The following information can be obtained:

- Touch panel software version
- Power section software version
- Database version
- Mac address version
- Qt (source code) version
- Qt licence version
- SQLite version
- Copyright SCS software

Authorised profiles: Caretaker and facilities manager



Setting > "Info" – "Beverage statistics"

Getränk	Anzahl Getränke
Espresso	0
Espresso Customizable	---
Cappuccino	---
Cappuccino Customizable	---
Flat White	---
Choclatto	---
Milch heiss	0
Kalte Milch	0
Heisswasser	---

Image: Beverage statistics

Information on dispensed beverages

Setting range: Reset of single or total counter readings

Standard: User-defined

Beverage	Beverage count
Espresso	1
Espresso DECAF	---
Coffee	---
Coffee DECAF	---
Americano	---
WhiteAmericano	---
Cappuccino	---

Variant: Resetting single counters

- ▶ [A] Select the small field for the respective beverage in the right-hand column.

✓ The beverage counter of the selected beverage is set to 0.

Variant: Resetting all counters

- ▶ [B] The large field at the top of the window removes all listed beverage counters.

✓ All listed beverage counters are reset to 0.

Authorised profiles: Caretaker, facilities manager, quality manger



Setting > "Info" – "Cleaning statistics"

Datum / Zeit	Profil	System	Ereignis
20.07.2021 12:05	Entwickler	Kaffeesystem	Zeitstempel zurücksetzen
20.07.2021 12:05	Entwickler	Milchsystem	Zeitstempel zurücksetzen
20.07.2021 12:05	Entwickler	Puerversystem	Zeitstempel zurücksetzen
20.07.2021 12:05	Entwickler	Dampfboilerspülung	Zeitstempel zurücksetzen
01.12.2020 16:44	Service-techniker	Kaffeesystem	Zeitstempel zurücksetzen
01.12.2020 16:44	Service-techniker	Puerversystem	Zeitstempel zurücksetzen
01.12.2020 16:44	Service-techniker	Dampfboilerspülung	Zeitstempel zurücksetzen

Image: Cleaning statistics

Information on cleaning processes performed

Setting range: No setting possible

Standard: –

The following information can be obtained:

- Date and time
- Profile
- System
- Event

Executed, cancelled and reset cleaning processes are shown in the "Event" column.

Authorised profiles: Caretaker



Setting > "Info" – "Maintenance statistics"

Datum / Zeit	Profil	Wartungsintervalle	Ereignis
10.03.2022 14:51	Maschinenbetreuer	Entkalkung	Erfolgt
20.07.2021 12:05	Entwickler	Entkalkung	Zähler zurücksetzen
01.12.2020 16:44	Servicetechniker	Entkalkung	Zähler zurücksetzen

Image: Maintenance statistics

Information on maintenance (descaling) performed

Setting range: No setting possible

Standard: –

The following information is listed:

- Date and time
- Profile
- System
- Event

Executed, cancelled and reset descaling processes are shown in the "Event" column.

Authorised profiles: Caretaker and facilities manager



Setting > "Info" – "Dispensing statistics"

Getränk	Datum / Zeit
Kalte Milch (5115)	16.03.2022 10:12:37
Tee (5127)	16.03.2022 10:12:15
Cappuccino (5110)	16.03.2022 10:11:11
Espresso (5108)	16.03.2022 10:10:39

Tassengrößen	Mittel Einzel
Abgebrochen	Nein
Dauer	28.0s
Extraktionszeit	3.7s
Getränk angepasst	Nein

Image: Dispensing statistics

Information on all performed beverage dispensing processes which contain the beverage data

Setting range: The [X] field deletes all counter readings

Standard: –

The following information can be read for each type of beverage:

- Cup sizes
- Cancelled dispensing
- Dispensing duration
- Extraction time
- Beverage modified

The date of beverage dispensing including the time is entered in the "Date / time" column. In addition, the values, e.g. cup sizes, are listed for the various dispensed beverage options.

Authorised profiles: Caretaker



Setting > "Info" – "Water hardness statistics"

Datum / Zeit	Wasserhärte ("dH/l")
21.03.2022 06:53	12
21.03.2022 06:52	9

Image: Water hardness statistics

Information on previously set water hardness

Setting range: No setting possible

Standard: –

The following information can be obtained:

- Date and time
- Water hardness

The list includes a new entry for each adjustment made to the water hardness.

Authorised profiles: Caretaker



Setting > "Info" – "Machine accounting statistics"

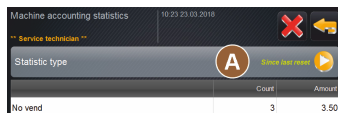


Image: Machine accounting statistics

The statistics provide information about the number of beverages dispensed, with or without sale, as well as the total of these beverage prices.

Setting range: Since last reset/Since initialisation

Standard: –

Variant: Since last reset

The "Since last reset" statistics can be deleted. This makes it possible to allow counters to run for a specific time.

1. Open selection list [A] with the [▶] field.
2. Select [Since last reset] statistics.
3. Select the [X] field.
✓ Confirmation instruction is displayed.
4. Confirm with the [▶] field.
✓ The "Since last reset" statistics are deleted.

Variant: Since initialisation

The statistics with the "Since initialisation" setting cannot be deleted.

Information: "Initialisation" means "since commissioning".

Authorised profiles: Caretaker



Setting > "Info" – "Beverage accounting statistics"

Statistic type	Count	Amount
Doppio	1	
Espresso	1	
My Coffee	1	3.50

Image: Beverage accounting statistics

The statistics provide information about all beverages dispensed, their configuration, as well as the beverage count and their price.

According to the default setting, the user statistics show the entries "Since last reset" or – if the complete statistics are being displayed – "Since initialisation" (commissioning).

Setting range: Since last reset/Since initialisation

There are also the following vend types to choose from:

- All
- No vend (all beverages are listed without payment)

Standard: –

In the selection list [A] the statistics type as well as the vend type [B] can be preset.

Variant: Since last reset

The "Since last reset" statistics can be deleted. This makes it possible to allow counters to run for a specific time.

1. Open selection list [A] with the [🔍] field.
2. Select the desired statistics and vend type.
3. Select [Since last reset] statistics.
 - ✓ The selected statistics are displayed with the vend type.
4. Select the [❌] field.
 - ✓ Confirmation instruction is displayed.
5. Confirm with the [✅] field.
 - ✓ The "Since last reset" statistics are deleted.

Variant: Since initialisation

The statistics with the "Since initialisation" setting cannot be deleted.

Information: "Initialisation" means "since commissioning".

6.4.5 Saving changes and loading them into coffee machine

Proceed as follows to save and load changes in the settings:

1. Save your selection with the [💾] field.
2. With the [🏠] field, exit the parameter and the setting.
3. Load changes to the setting/parameter into the coffee machine using the [🔄] field.
 - ✓ The coffee machine performs a restart.

7 Cleaning

7.1 Cleaning intervals

Daily	Weekly	As needed	Optional
Automatic cleaning			
x			Automatic rinsing (if programmed)
x		x	Hot rinsing
Cleaning programme			
x		x	Coffee system cleaning (after instruction)
Manual cleaning work			
x			Emptying grounds container and cleaning
x			Brewing chamber
x			Cleaning drip tray and drip grid
x			Cleaning touch screen
	x	x	Cleaning bean hoppers
		x	Lower beverage outlet part
		x	Cleaning outer surfaces of coffee machine
Legend of cleaning intervals			
Daily:		At least once a day, or more often if necessary.	
Weekly:		At least once a week, or more often if necessary.	
As needed:		If there is any contamination.	
As instructed:		Instructions appear on the display.	
Optional:		Depending on machine equipment	

7.2 Active cleaning schedule

The following two cleaning schedules are available for configuration by the service technician:

- ▶ Cleaning schedule with the "SchaererDefault" presetting [standard].
- ▶ Cleaning schedule with the "Manual" presetting.

**ADVICE**

Compliance with HACCP cleaning concept. The cleaning intervals given in this chapter correspond to the "SchaererDefault" cleaning schedule. These settings fulfil the requirements for the HACCP cleaning concept.

Any differing manual adjustments that are made by the service technician in the "Manual" cleaning schedule should fulfil the requirements for the HACCP cleaning concept.

- If the cleaning level is set to "None", the operating company is responsible for carrying out the necessary cleaning.



See chapter "Cleaning" – "HACCP cleaning concept".



The information shown in the display about pending or completed cleaning operations varies according to which configuration is selected in the cleaning schedule.



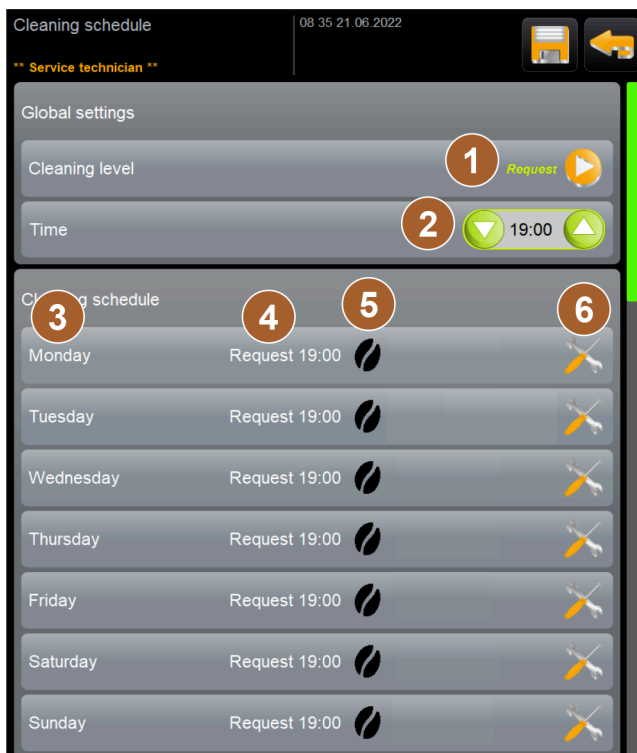
See chapter "Cleaning" – "Cleaning levels" and "Cleaning instructions" for more information.

7.2.1 "Schaerer Default" cleaning schedule



In the "SchaererDefault" cleaning schedule, most settings are preset and cannot even be changed by the service technician. The start time and the cleaning level is updated simultaneously for all weekdays whenever an adjustment is made.

The time for a cleaning operation is set by the service technician as a general time setting (2) for each day of the week.



1. Selection of the cleaning level, see "Cleaning level" below.
2. Time of cleaning (optimum start time)
3. Cleaning day
4. Active cleaning level, see "Cleaning level" below
5. Unit to be cleaned [coffee system]
6. Cleaning schedule configuration

Setting cannot be made in the cleaning schedule with the "SchaererDefault" presetting.



See chapter "Cleaning" – "Cleaning levels" and "Cleaning instructions".

7.2.2 "Manual" cleaning schedule



All available settings in the "Manual" cleaning schedule can be configured by the service technician.

The service technician can make the following settings in the "Manual" cleaning schedule:

- ▶ Configuration of a cleaning day
- ▶ Setting of the cleaning level
- ▶ Starting time of a cleaning
- ▶ System to be cleaned
- ▶ Deleting or adding days with a cleaning
- ▶ Setting of the time window before/after cleaning

7.3 Cleaning levels



The cleaning levels are set in the cleaning schedule. The cleaning schedule can be accessed by the service technician.

The following cleaning levels are possible:

- None
- Instruction
- Forced

Variant: [None], i.e. no cleaning instructions



With the "None" setting, no information is provided about pending cleaning operations. The operating company is responsible for the timing of necessary cleaning operations and for ensuring they are carried out.

- ✓ The "Service menu" field [A] does not provide information on pending cleaning with a red mark.
- ✓ The [Cleaning] field in the "Service menu" never turns into a red smiley.
- ✓ The cleaning operations are started manually in the "Service menu".

1. Start cleaning manually in the Service menu with the [▶] [C] field.



Image: Cleaning level [None]

Variant: With [Instruction]



With the "Instruction" setting, information about pending cleaning operations is shown in the display. The operating company is informed at all times about pending and completed cleaning operations.

If the cleaning instructions setting is set to [Instruction], the following functions and information are provided:

[A] A red mark appears in the "Service menu" field.

[B] The "Cleaning" field in the "Service menu" with a green smiley provides information about the next pending cleaning in [h].

[C] The field with a red smiley provides information about a cleaning operation that has been overdue for [1 - 4] [h].

1. Start cleaning manually in the Service menu with the [▶] [C] field.
 - ✓ After cleaning has been carried out, the display shows the next scheduled cleaning operation [D] in [h].

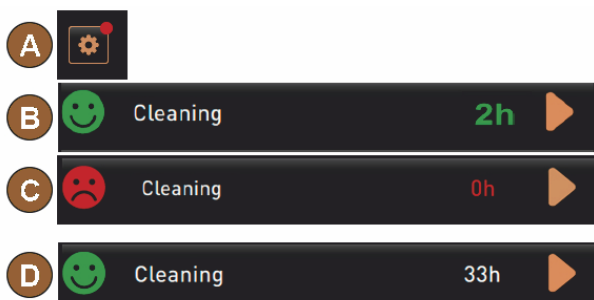


Image: Cleaning level [Instruction]

Variant: With [Forced]



With the "Forced" setting, information about overdue cleaning operations is shown in the display. If this overdue cleaning does not take place within the configured time window of [0-4 h], mandatory cleaning is enforced. The coffee machine cannot dispense any more beverages.

If the cleaning instructions setting is set to [Forced], the following functions and information are provided:

[A] A red mark appears in the "Service menu" field.

[B] The "Cleaning" field with a green smiley provides information about the next pending cleaning operation in [h].

[C] The field with a red smiley provides information about a cleaning operation that has been overdue for [1 – 4] [h].

Prerequisite:

- Scheduled cleaning [B] was not carried out.
 - Overdue cleaning [C] was not carried out in the displayed time window [1 – 4 h].
 - The coffee machine is blocked for beverage dispensing.
 - The display indicates that cleaning must be carried out.
- Start cleaning manually in the Service menu with the [] [C] field.
- ✓ After cleaning has been carried out, the display shows the next scheduled cleaning operation [D] in [h].
 - ✓ The coffee machine is ready for use again.

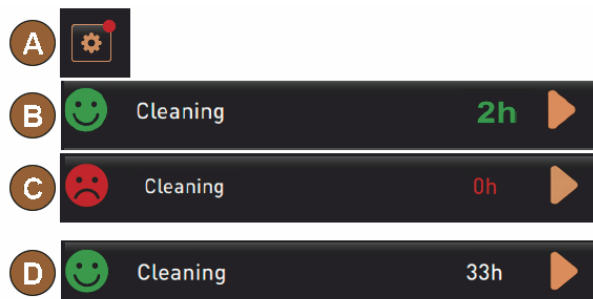


Image: Cleaning level [Instruction]/[Forced]

Cleaning time window

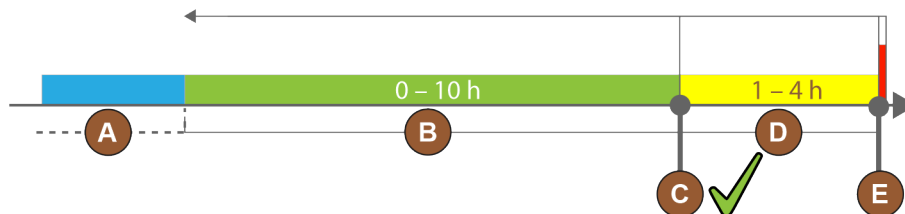


Image: Time window for cleaning

Item	Time window	Explanation
A	Cleaning operations performed during this time window will be ignored.	The cleaning instructions remain unchanged after a cleaning operation.
B	Cleaning operations performed during this time window are too early. Nevertheless, these cleaning operations are recognised as having been carried out.	The cleaning instructions are reset after a cleaning operation. The next cleaning operation pending in the cleaning schedule is displayed in [h] in the Service menu.
C	Time for the optimal start of a cleaning (according to schedule)	The remaining time until the optimum start time is displayed in the Service menu.
D	Time window for optimum cleaning on schedule	The cleaning instructions are reset after a cleaning operation.

Item	Time window	Explanation
E	Time window for mandatory cleaning Overdue cleaning operations cannot be delayed any longer from this time.	The display shows that dispensing is no longer possible. The coffee machine is no longer ready for use. Cleaning is mandatory.

7.4 Mandatory cleaning



When mandatory cleaning is active, a pending cleaning operation cannot be put off. The pending cleaning operation does not allow further beverage dispensing. Mandatory cleaning and the period that elapses before it is enforced can be defined in the cleaning schedule by the service technician.

Running the cleaning programme makes the machine ready for use again.



See chapter "Cleaning" – "Daily machine cleaning" – "Display-guided cleaning programme".



Also see chapter "Cleaning" – "Cleaning levels".

7.5 Cleaning products



WARNING

Danger of poisoning from cleaning products!



Cleaning products can lead to poisoning if not used properly.

- ▶ Use only cleaning products recommended by Schaerer.
- ▶ Keep children away from cleaning products.
- ▶ Do not touch cleaning products with bare hands and do not breathe them in.
- ▶ Before using a cleaning product, read the information on the packaging and the safety data sheet carefully. If a safety data sheet is not available, please request it from your sales partner.



ADVICE

Property damage due to incorrect cleaning products!

Use of incorrect cleaning products may damage the coffee machine.

- ▶ Use only cleaning products for daily and weekly cleaning that are recommended by Schaerer AG.

7.6 Automatic cleaning



CAUTION

Scalding danger due to hot water!

While the machine is being rinsed, hot water runs out of the beverage outlet. An automatic machine rinse is announced by a message on the display. The functional lighting turns red.

- ▶ Do not reach under a beverage outlet while a machine is being rinsed.
- ▶ Align the optional steam wand in the drip tray.
- ▶ Configured rinsing processes are automatically restarted. The beverage outlet should therefore always be free.

7.6.1 Automatic switch on/off rinsing



The automatic switch on/off rinsing process is the standard setting and cannot be disabled.

The following systems are automatically rinsed after switching on or before shutting down the coffee machine (if present):

- Coffee system
- Hot & cold system (option)

7.6.2 Manual rinsing processes (service menu)

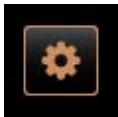
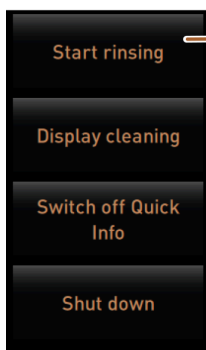


Image: [Service menu] button



The following rinsing processes can be activated manually in the Service menu at any time:

- ▶ Press the [Service menu] field at the bottom left of the user interface.
 - ✓ The Service menu appears.
- ▶ Select the [Start rinsing] (1) field.
 - ✓ A system rinsing is executed in the same sequence as the automatic switch on/off rinsing.



See also chapter "Cleaning" – "Rinsing intervals" – "Automatic switch on/off rinsing".

7.6.3 Configured rinsing processes

The rinsing processes which can be configured regarding the time can be configured by the service technician:

- ▶ Rinsing > Beverage outlet [rinsing interval outlet] (1 – 180 min).
- ▶ Rinsing > Reverse flow cooler [rinsing interval heat exchanger] (1 – 180 min)



The configured rinsing processes are activated once an hour in the standard setting.

7.7 ProCare cleaning system



The ProCare cleaning process, which, for whatever reason, was not correctly completed must be repeated without fail. The machine can only again be ready for use if the cleaning process has been correctly completed.



ADVICE

The ProCare cleaning process only takes a few minutes. The coffee machine is not ready for use during this time.

Report that the coffee machine is not ready for use in a timely manner.

- Plan at least 5 min. for the cleaning process.

7.7.1 ProCare cleaning product



WARNING

Danger of poisoning from cleaning products!



Cleaning products can lead to poisoning if not used properly.

Observe the following instructions without fail when using ProCare cleaning products:

- Do not remove ProCare cleaning bags during the cleaning process. Always wait for the instruction in the display.
- Keep children away from the ProCare cleaning products.
- Do not touch the cleaning product with bare hands and read the supplied safety data sheet.
- Before using a cleaning product, read the information on the packaging and the safety data sheet carefully. If a safety data sheet is not available, please request it from your sales partner.



ADVICE

Use only original ProCare cleaning products!

Use of cleaning products other than those from Schaerer AG may damage the machine.

- Only use original ProCare cleaning products from manufacturer Schaerer AG for the cleaning process.
- Always use original ProCare cleaning bags taken directly out of the packaging.



Before using the ProCare cleaning product, read the information on the packaging and the safety data sheet carefully. If a safety data sheet is not available, please request it from your sales partner.

7.7.2 ProCare cleaning system overview



Replace the cleaning bags after approx. 300 to 365 days.





Image: ProCare overview

No.	Name	Explanation
1	Locking	Access cover is locked in this position.
2	Locking	Access cover is unlocked in this position and can be opened.
3	ProCare cleaning bag (blue)	Use the basic cleaning solution (ProCare blue) to clean the coffee machine.



7.7.3 Inserting ProCare cleaning bag



Image: Inserting ProCare cleaning bag

- Open the user panel.
 See chapter "Operation" – "Opening user panel".
- Shut down the coffee machine.
 See chapter "Operation" – "Shutting down".
- Turn both green locking mechanisms and open the ProCare access cover.
- Loosen the bag connection (1) and remove the bag (2).
- Screw the end cap (3) onto the empty bag (2) and dispose of it.
- Remove the end cap and protective film from the new ProCare cleaning bag, place it on the free connection and tighten it.
- Close ProCare access cover. Turn and lock both green locking buttons.

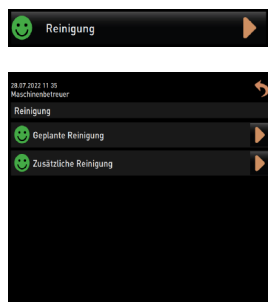


- Switching on coffee machine
 See chapter "Operation" – "Switching on".
- Close user panel
 See chapter "Operation" – "Closing user panel".



- ▶ In the menu, tap on the [Settings] button.
- ▶ Tap on the [Maintenance intervals] button.
 - ✓ The remaining cleaning cycles appear. Cleaning container (blue) {1}
- ▶ Select the button for the cleaning bag.
 - ✓ The following two options are available:
- ▶ 1. Opened cleaning bag.
 - With the opened cleaning bag, only air is extracted from the bag.
- ▶ 2. New cleaning bag
 - If there is a new cleaning bag, the bag is filled with water and the air is extracted.
- ▶ Confirm with the field.
 - ✓ The selected option is performed.
- ▶ Cancel with the field.
 - ✓ Back to main menu.

7.7.4 Performing ProCare cleaning



- ▶ In the menu, select the [Settings] field.
- ▶ Select the [Cleaning] field.
 - ✓ The following two options are available:
 - [Scheduled cleaning]
 - [Additional cleaning]

Scheduled cleaning

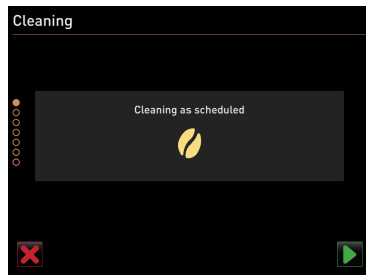
The scheduled cleaning is pre-programmed by the service technician in the presence of the coffee machine operator. This then starts automatically.


Additional cleaning

The additional cleaning process can be called up and carried out by the coffee machine operator at any time.



- ▶ In the menu, select the [Settings] field.
- ▶ Select the [Cleaning] field.
 - ✓ The following two options are available:
 - [Scheduled cleaning]
 - [Additional cleaning]
- ▶ Select the [Additional cleaning] field.
 - ✓ The following fields are available:
 - [Coffee system]
- ▶ Tap the available system to be cleaned.



- ▶ Confirm with the [▶] field.
 - ✓ Selected system is cleaned
-  *Follow the instructions of the coffee machine.*
- ▶ Cancel with the [X] field.
 - ✓ Back to main menu

7.8 Manual cleaning tasks

7.8.1 Cleaning grounds container

Caution Coffee grounds in the grounds container can quickly lead to mould formation. The spread of mould spores in the machine results in the danger of contamination of the coffee.

- ▶ That is why the grounds container must be cleaned daily.



- ▶ Pull the grounds container (1) out of the coffee machine.
 - ADVICE** High temperatures may lead to damage. Never clean the grounds container in the dishwasher.
- ▶ Thoroughly clean the grounds container (1) with water and a household cleaning product.
- ▶ Rinse with running water and dry with a clean cloth.
- ▶ Reinsert dry grounds container (1) into the coffee machine.

Image: Emptying grounds container

7.8.2 Cleaning brewing chamber



- ▶ Pull the grounds container out of the coffee machine.
- ▶ Remove ground coffee from the coffee machine brewing chamber (1) using a cleaning brush.
 - ADVICE** The cleaning brush is included in the scope of delivery of the coffee machine.
- ▶ Wipe and dry the brewing chamber (1) with a clean, damp cloth.
- ▶ Replace the grounds container.
- ▶ Reinsert dry grounds container (1) into the coffee machine.
- ▶ Replace the grounds container.

7.8.3 Cleaning drip tray and drip grid



CAUTION

Scalding danger due to hot water!

Automatic rinsing flushes hot water out of the beverage outlet.

- ▶ Shut down the machine before the drip grid is removed for cleaning.
- ▶ Shut down the machine before cleaning the drip tray.



ADVICE

Overflowing

A plugged waste water outlet causes the drip tray to overflow.

- ▶ Before the ProCare cleaning process is done, checking whether the waste water outlet is plugged is mandatory.



- ▶ Thoroughly clean the drip grid with positioning grid of the coffee machine using running water and detergent.
- ▶ Rinse the coffee machine drip tray with clean water and check that the waste water outlet [1] is not plugged while doing so.
- ▶ Place the drip grid back in the drip tray and check that it is correctly positioned.
- ▶ Check that the positioning grid is positioned correctly regarding the beverage outlet.



1

Image: Drip grid and drip tray

7.8.4 Cleaning touch screen



CAUTION

Danger of scalding!

Unsupervised beverage dispensing can cause scalding during cleaning.

- ▶ Deactivate the touch screen in the Service menu before cleaning or shut down the machine.



Image: [Service menu] field

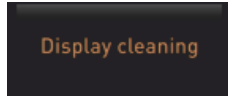


Image: Service-Menü - Display reinigen

1. Press the [Service menu] field at the bottom left of the user interface.
 - ✓ The Service menu opens.
2. Select the [Cleaning display] field.
 - ✓ Touch screen is deactivated for 30.
 - ✓ The display no longer reacts to touch.

ADVICE Damage to the touch screen during cleaning procedure. Do not use abrasive cleaning products. Never use force, strong pressure or sharp objects when pressing on the display.
3. During the available 30 sec, clean the touch screen using paper towels and a commercially available glass cleaner.
 - ✓ After the countdown ends, the touch screen is reactivated.

7.8.5 Cleaning outer surfaces

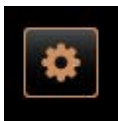
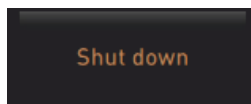


Image: [Service menu] field



- ADVICE** The machine housing could get scratched by scouring agents.
1. Do not use scouring agents for cleaning.
 2. Press the [Service menu] field at the bottom left of the user interface.
 - ✓ The Service menu opens.
 3. Select the [Shut down] field.
 - ✓ The machine is in Standby mode.
 4. Wipe the outer surfaces of the coffee machine and optional accessory with a clean, moist cloth.
 5. Unlock the user panel and slide it upwards until it snaps into place.
 6. Switch the machine back on using the power button.
 7. Lightly lift the user panel and push downwards until it snaps into place.
 - ✓ The machine is switched on and ready for use.



See also chapter "Cleaning touch screen".

7.8.6 Cleaning bean hoppers



CAUTION

Cutting injuries!

Danger of injury from the rotating grinding discs in the grinder.

- ▶ Never reach into the bean hoppers while the coffee machine is switched on.
- ▶ Wear gloves while cleaning.

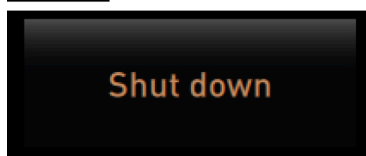
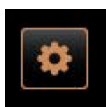


Image: Bean hopper



Image: Cleaning bean hoppers

- ▶ Press the [Service menu] field at the bottom left of the user interface.
- ▶ Select the [Shut down] field in the Service menu.
 - ✓ The machine is in Standby mode.
- ▶ Unlock the bean hopper with the central locking mechanism behind the user panel.



See chapter "Operation" – "Operating elements on the machine" – "Interior machine operating elements" to unlock the bean hoppers.

ADVICE The bean hopper could get scratched by scouring agents.

- ▶ Do not use abrasive cleaning products.
- ▶ Unlock bean hopper.
- ▶ Raise the bean hopper from the machine.
- ▶ Remove remaining coffee beans from machine and bean hopper.
- ▶ Rinse bean hopper thoroughly under running water and wipe clean using a soft cloth.
- ▶ Wipe the cover and container dry with a clean cloth.
- ▶ Reinsert the bean hopper into the machine.
- ▶ Latch bean hopper using the central locking mechanism.

7.9 HACCP cleaning concept



WARNING

Risk of infection from bacteria!



If the coffee machine is not cared for and cleaned properly, the dispensing of beverages will become a health hazard in terms of food hygiene.

- ▶ Wear safety gloves during cleaning.
- ▶ Wash your hands thoroughly before and after cleaning.
- ▶ Clean the coffee machine daily.
- ▶ Never mix cleaning products.
- ▶ Store cleaning products separately from coffee.
- ▶ 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 notes specified on the cleaning product.

HACCP: Hazard Analysis Critical Control Point

The HACCP cleaning concept is designed to ensure safe food. Hazards related to the processing of food or emanating from finished products are considered and the risks are assessed. The risks are mitigated by appropriate measures.

When installation, maintenance, care and cleaning are performed properly, Schaerer AG coffee machines satisfy the HACCP requirements.

8 Maintenance

8.1 Checking waste water outlet



ADVICE

Risk of flooding!

A plugged waste water outlet in the drip tray causes overflowing of the drip tray.
► Before the cleaning process, check the drain speed without fail.

The following are needed to check the waste water outlet:

- 1 l water
 - Timer
- Remove the drip grid from the drip tray.
- Empty 1 l of water into the drip tray and start the timer at the same time.
- ✓ When the waste water outlet is not plugged, 1 l of water completely drains within 30 sec.



If 1 l of water does not drain in the required time of 30 sec., the waste water outlet is plugged. ProCare cleaning must not be performed. The waste water outlet must first be repaired by a service technician.

8.2 Coffee machine maintenance

The coffee machine requires regular maintenance. 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.



ADVICE

Maintenance interval

Run pending maintenance in a timely manner for smooth operation. Putting off maintenance can lead to wear.

- Have pending maintenance work done by your service partner as quickly as possible. Safety-relevant components must be checked and/or replaced without fail after the end of their service lives has been reached. If not observed, the liability of Schaerer AG becomes invalid.

8.2.1 Maintenance intervals

Maintenance intervals are defined in the separate maintenance regulations.

- Perform all cleaning intervals in line with the instructions displayed by the machine.



Perform additional cleaning one day before maintenance.



See chapter “Cleaning” – “ProCare cleaning”.

Safety-relevant components	24 months	48 months	72 months
Hot water boiler	Check [only replace if necessary]	[Replace]	Check [only replace if necessary]
Safety valve 12 bar	[Replace]	[Replace]	[Replace]

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9 Troubleshooting

9.1 Error displays

A distinction can be made between the following fault indications:

- Functional lighting
- Messages in display

9.1.1 Functional lighting

The coffee machine is equipped with functional lighting by default. Pending error messages are signalled in the display by illuminated LED colour strips on the coffee machine.

The different colours have the following meanings:

- White: Coffee machine is ready for use
- Orange: Action due soon (refilling, cleaning, etc.)
- Red: Machine error (grinder blocked, water flow error, etc.)

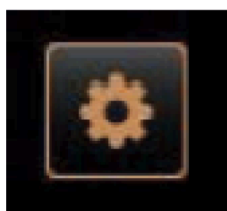
9.1.2 Messages in display

Machine ready for use during pending message



If there is a red pending fault/error message, beverage dispensing is disabled until the required action is taken.

- ▶ Select any other pending error messages in the "Service menu" and remedy them in line with the measures described below.
 - ✓ If the error message persists, a malfunction may exist.
- ▶ Contact your service partner (see www.schaerer.com).



Pending error message in the Service menu

Without coloured mark

- The [Service menu] operating field without coloured mark provides information on when the machine is completely ready for use.

Orange mark

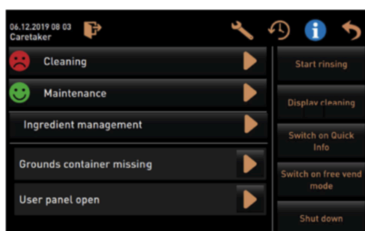
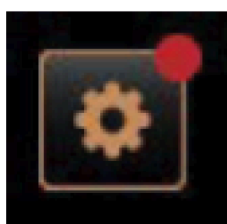
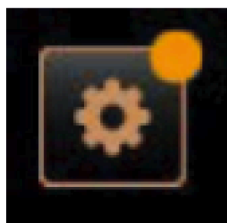
- The [Service menu] button with orange mark provides information on pending information or upcoming action requests while the machine is ready for use.

✓ It will soon be necessary to take action.

Red mark

- The [Service menu] operating field with red colour mark provides information on pending error messages, cleaning processes and maintenance.

✓ Action must be taken.



Pending error messages, information or action requests are listed in the "Service menu".

9.2 Faults with display messages

For faults with a display message, a distinction is made according to the following categories:

- ▶ Fault
- ▶ Error
- ▶ Instruction
- ▶ Note

9.2.1 "Note" display message



The following display messages have a blue background in the PC board.

Display message	Cause	What to do
Caution: A blocked waste water outlet can cause flooding.	There are left-over coffee grounds in the waste water.	▶ Check the waste water outlet and drip tray for blockages and clean them.

Display message	Cause	What to do
Wait until the payment system is fully initialised.	Initialisation is running.	► Wait for the payment system to finish initialising.
Wait until telemetry connection is established or contact service.	The "Coffee Link" indication is missing.	► Restart the telemetry module. ► If the malfunction persists, contact your service partner.

9.2.2 "Fault" display message



The following display messages have a yellow background in the PC board.

Display message	Cause	What to do
Brewing unit encoder error	The brewing unit encoder motor was not detected during machine initialisation.	► Restart coffee machine. ► If the malfunction persists, contact your service partner.
Error during automatic grinding level correction in the centre, left or right	The motor of the automatic grinding level adjustment function is running incorrectly.	► Cancel grinding level adjustment. ► Restart coffee machine. ► If the malfunction persists, contact your service partner.
Machine configuration error	There is a discrepancy between the software and the machine hardware.	► Restart hardware detection. ► Restart coffee machine. ► If the malfunction persists, contact your service partner.
Reset cleaning	A cleaning operation was aborted/not completed.	► Perform cleaning in the "Service menu". ► Acknowledge cleaning in the "Service menu".
Grounds container full soon	The grounds container will soon contain about 60 – 70 coffee cakes.	► Empty the grounds container at the next opportunity.
Close user panel	The user panel is open or was not completely closed.	► Push the user panel downwards until it snaps into place.

9.2.3 "Malfunction" display message



The following display messages have a red background in the PC board.

Display message	Cause	What to do
Grounds container full	The grounds container contains about 60 – 70 coffee cakes.	<ul style="list-style-type: none"> ▶ Empty the grounds container. ▶ Rinse out the grounds container and wipe it dry. ▶ Replace the grounds container.
Insert grounds container	The grounds container is missing.	▶ Correctly insert the grounds container into the machine.
	The grounds container was not completely inserted into the machine.	▶ Correctly insert the grounds container into the machine.
Left, centre or right grinder overloaded or blocked	An excessive current value (> 8 A) was measured over a defined period of time. The machine attempts to start grinding 5 times, after which the following message appears: "Left/centre/right grinder overloaded". If another beverage is requested while in this state and the problems remain, the message changes to "Left, centre or right grinder/blocked". Beverage dispensing is disabled.	<ul style="list-style-type: none"> ▶ Shut down the coffee machine. ▶ Check the grinder for blockages and remove any foreign bodies. ▶ Restart coffee machine. ▶ If the error appears again, the malfunction has not been resolved: Contact your service partner.
Top up beans, grinder empty	The bean hopper is empty.	▶ Refill with beans.
Hot water boiler excess temperature	The water supply has been interrupted.	▶ Check the condition of the mains water supply.
	The coffee machine is overheated.	▶ Disconnect the coffee machine from the mains power supply and let it cool down.
	The SSR is defective.	▶ If the malfunction persists, contact your service partner.
	The excess temperature switch has triggered.	
Hot water temperature too low	The heating up phase is still running.	▶ Wait until the machine is heated-up.
	There is an error while heating up.	<ul style="list-style-type: none"> ▶ Disconnect the machine from the mains power supply. ▶ Reconnect the machine and switch it on.
HW boiler heating time-out, heating time-out	Although the heater is switched on, the set temperature was not reached within 5 min.	▶ If the malfunction persists, contact your service partner.
NTC hot water boiler short-circuited	The main board does not detect resistance. A maximum temperature (approx. 150°C) is measured. Beverage dispensing is disabled.	▶ If the malfunction persists, contact your service partner.

Display message	Cause	What to do
NTC hot water boiler interrupted	The temperature sensor has been interrupted. A minimum temperature is measured.	<ul style="list-style-type: none"> ▶ If the malfunction persists, contact your service partner.
Brewing unit overcurrent	An overcurrent was detected on the brewing unit motor.	<ul style="list-style-type: none"> ▶ If the malfunction persists, contact your service partner.
Brewing unit standby current	Even when the brewing unit is not running, it must consume a minimal amount of current. If it does not, there is an error. This may be due to the brewing unit, the power board or the wiring.	<ul style="list-style-type: none"> ▶ Check the brewing unit for blockages. ▶ If the malfunction persists, contact your service partner.
Brewing unit time-out	<p>The brewing unit does not have a press switch for the "home position". The position of the brewing cylinder is detected by measuring the current value. The following peak values are detected: Upper and lower position</p> <p>The following time-out is defined: If, after a movement of the brewing unit, a current peak is not detected within 10 s, the "Brewing unit time-out" error is displayed.</p>	<ul style="list-style-type: none"> ▶ If the malfunction persists, contact your service partner.
Water flow error	While a coffee product is being dispensed, the flow meter performs fewer than the defined number of minimum rotations. It is likely there is a total or partial blockage somewhere in the water system.	<ul style="list-style-type: none"> ▶ Check the level of the drinking water tank and the state of the mains water supply. ▶ Check the internal or external drinking water tank (saturation of the filter reduces the water flow). ▶ Check whether the upper plunger is blocked or partially congested. ▶ Check the grinding setting. INFORMATION: If the grinding setting is too fine, this can inhibit or completely block the water flow. ▶ If the malfunction persists, contact your service partner.
Modbus BP processing error	Communication error between power section and touch screen	<ul style="list-style-type: none"> ▶ If the malfunction persists, contact your service partner.
Modbus MR processing error	Communication error between cooling unit and touch screen	<ul style="list-style-type: none"> ▶ Check the cooling unit and machine wiring. ▶ If the malfunction persists, contact your service partner.

Display message	Cause	What to do
Coffee machine out of service	Setting in Self-service mode if no beverages can be dispensed for various reasons.	<ul style="list-style-type: none"> ▶ Set the "Configuration" – "Timer mode" parameter as appropriate. ▶ Check products such as coffee beans, milk, choco powder or milk powder. ▶ Check temperature inside cooling unit. ▶ Carry out any cleaning or descaling operation that is pending. ▶ If the malfunction persists, contact your service partner.
Communication error (various types)	Communication error between software and various modules, such as the HCU power section, Flavour Point, brewing unit, manometer, etc.	<ul style="list-style-type: none"> ▶ Restart coffee machine. ▶ If the malfunction persists, contact your service partner.

9.3 Malfunctions without display messages

Malfunction	Cause	What to do
The display is dark.	The coffee machine is not connected to the mains power supply.	<ul style="list-style-type: none"> ▶ Connect the coffee machine to the mains power supply. ▶ Switch on the coffee machine. ▶ If the malfunction persists, contact your service partner.
	The coffee machine is not switched on.	<ul style="list-style-type: none"> ▶ Switch on the coffee machine. ▶ If the malfunction persists, contact your service partner.

10 Disassembly and disposal

10.1 Disassembly

After end of service life

After the coffee machine has reached the end of its service life, disassemble the coffee machine and dispose of it in an environmentally friendly manner.

10.2 Disposal



The coffee machine must be disposed of correctly in conformity with local and legal regulations.

- Contact your service partner.

