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FB 5100   IN 5100   ES 5100
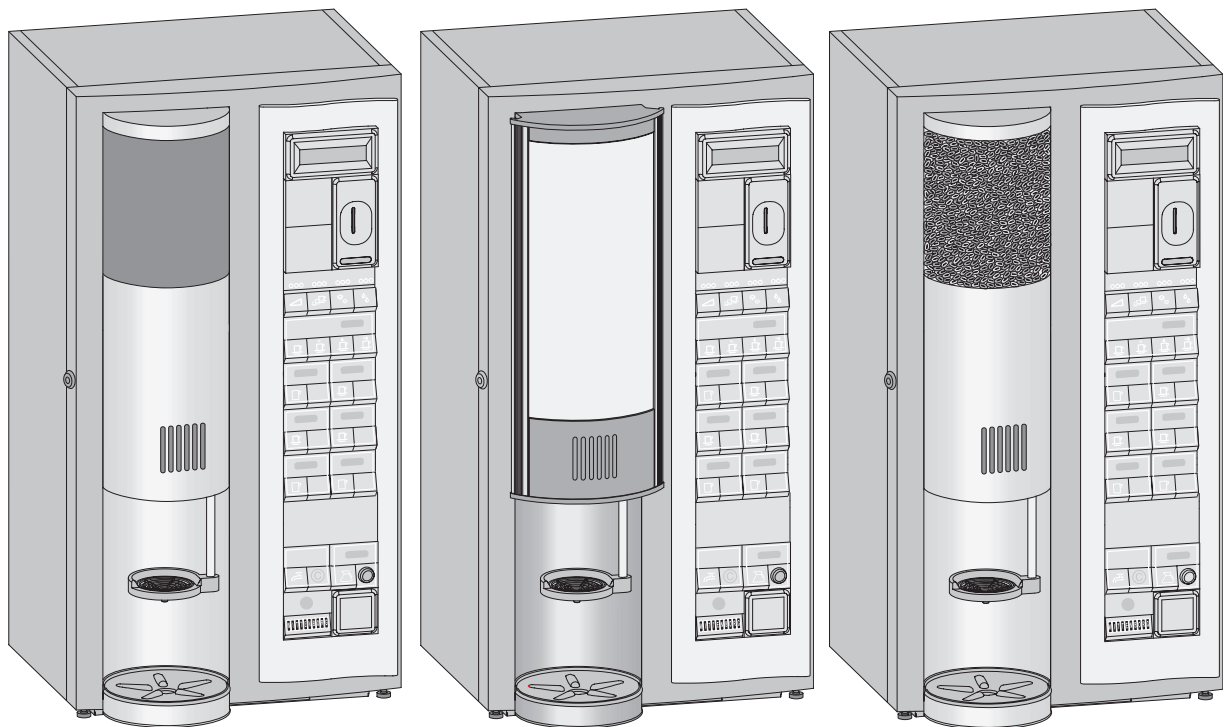
Operator Manual

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Safety Precautions

The following general safety precautions apply to the operation and main-tenance of the vending machine and must be observed. Non-compliance with these instructions could cause the machine to suffer damage which may be irreparable. Wittenborg A/S refuses to accept liability for incorrect handling.

Notes on Safety

In this manual, the safety notes (printed in bold type) and the symbol shown below are used to draw your attention to hazards.

The information introduced in this way is of particular importance with re-gard to your understanding of the machine and how it works.

Study and make sure you fully understand the text of a safety note before moving on to the next section.

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Safety Notes Summary

- The installation and repair of the machine must be entrusted only to trained service technicians.
- Use only the manufacturer's genuine spare parts.
- Read and make sure you understand the operator manual before you start up the machine.
- The liquids dispensed by the machine are hot. To avoid the risk of injury by scalding, keep hands and other parts of the body clear of the cup platform after pressing a selection button.
- To avoid contact with hot liquids, do not attempt to fill several cups by pressing the Pot selection button (MultiBrew).
- The machine does not stop immediately when the pot or cup is removed from the cup or pot platform after a selection button is pressed. Brewing is completed for the requested quantity, i.e. hot liquid is dispensed.
- When cleaning the brewer, keep parts of the body and clothing away from the machine (moving parts) in order to avoid the risk of injury.
- If a fault occurs during dispensing and the machine shuts down with the brewer full or partially filled, place a suitable container under the outlet pipe and keep hands and other parts of the body clear of the brewer.
- The machine must be cleaned regularly in order to ensure operability and for reasons of hygiene.
- Disconnect the power cable from the socket outlet before wiping the machine clean. Use only a clean, damp cloth to clean the machine inside and outside. Do not spray the machine with water.
- For cleaning and descaling the machine, use only substances officially approved for use in the foodstuffs industry.
- After cleaning, make sure that all components are correctly reinstalled.
- Never insert the plug into the socket if either is wet and never touch the plug with wet hands.
- The vending machine must be connected to the mains in accordance with all official regulations and local stipulations.
- The vending machine must be connected to earth by the facility's protective conductor and provided with a readily accessible device for disconnecting the voltage supply.
- Make sure that a clearance, specified in the installation instructions, is maintained between the rear of the machine and the wall in order to permit adequate ventilation.
- The vending machine is intended for indoor installation only.

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RAM circuit

Note	The VMC circuit board of the machine contains a RAM circuit with an internal battery backup. The RAM circuit can explode if not handled correctly. Do not disassemble, short-circuit, expose to water or to flame or temperatures in excess of 100°C. Return discharged RAM circuits to the supplier.

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Purpose of the Drink Vending Machine

Introduction	For your general safety and to ensure a safe operation of the drink vending machine, we state the product purpose below.
Purpose	The purpose of the vending machine is: • To dispense hot FB, IN or ES drinks. • To dispense cold IN drinks. The drink vending machine should not be used for purposes other than those stated above.

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Purpose of the Manual

This manual is intended for:

- The person who refills and cleans the vending machine
- The person who is responsible for e.g. setting up correct prices, managing sales turnover and performing light adjustments to ensure a faultless operation of the machine.

The instructions in this manual are applicable to more than one version of the machine. Consequently, you may find references to facilities not fitted on your machine.

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Introduction

Items

- Before you start
- Introduction

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Before you start

List of items	This is a list of what you should bring on your daily rounds: • Bucket for washing solution • Bucket for rinsing • Cleaning cloths • Paper towelling for drying or absorbent cloths • Torch • Cleansing agent for soaking brewer items • Stainless steel cleaner • Foam cleaner • Non-wax polish • High-wax polish • Sterilizing tablets for water sterilization • Large rubbish bag for waste and litter • Ingredients • Cups • Rubber gloves • Various brushes (large and small tube brushes) • Plastic spatula • Pen and paper • Spare rolls of filter paper
Note	Use cleansing agents in correct quantities and always rinse thoroughly.

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Introduction

The vending machine is delivered as a table model. The machine may be mounted on a wall or on a matching base cabinet with a specially designed table insert.

Dependent on the model the machine dispenses high-pressure filtered FB or ES hot drinks and/or instant drinks as well as hot water. The FB machine can be equipped for preparing freshbrew tea or coffee.

Use only fresh coffee beans, ground coffee, ground tea or instant products made for vending machines.

The machine is delivered with direct selection buttons. All communication with the machine, such as drink selection, rinsing functions, data retrieval and settings, is carried out by using the direct selection buttons.

If the vending machine is not used according to its purpose the manufacturer cannot take on any liability.

According to the requirements of the customer, the service technician can program different functions into the vending machine.

These operating instructions are valid for several variants of the vending machine. Therefore, it is possible that in these instructions you may find instructions for operating elements that are not installed in your vending machine.

The operating instructions must have been read before operating the vending machine.
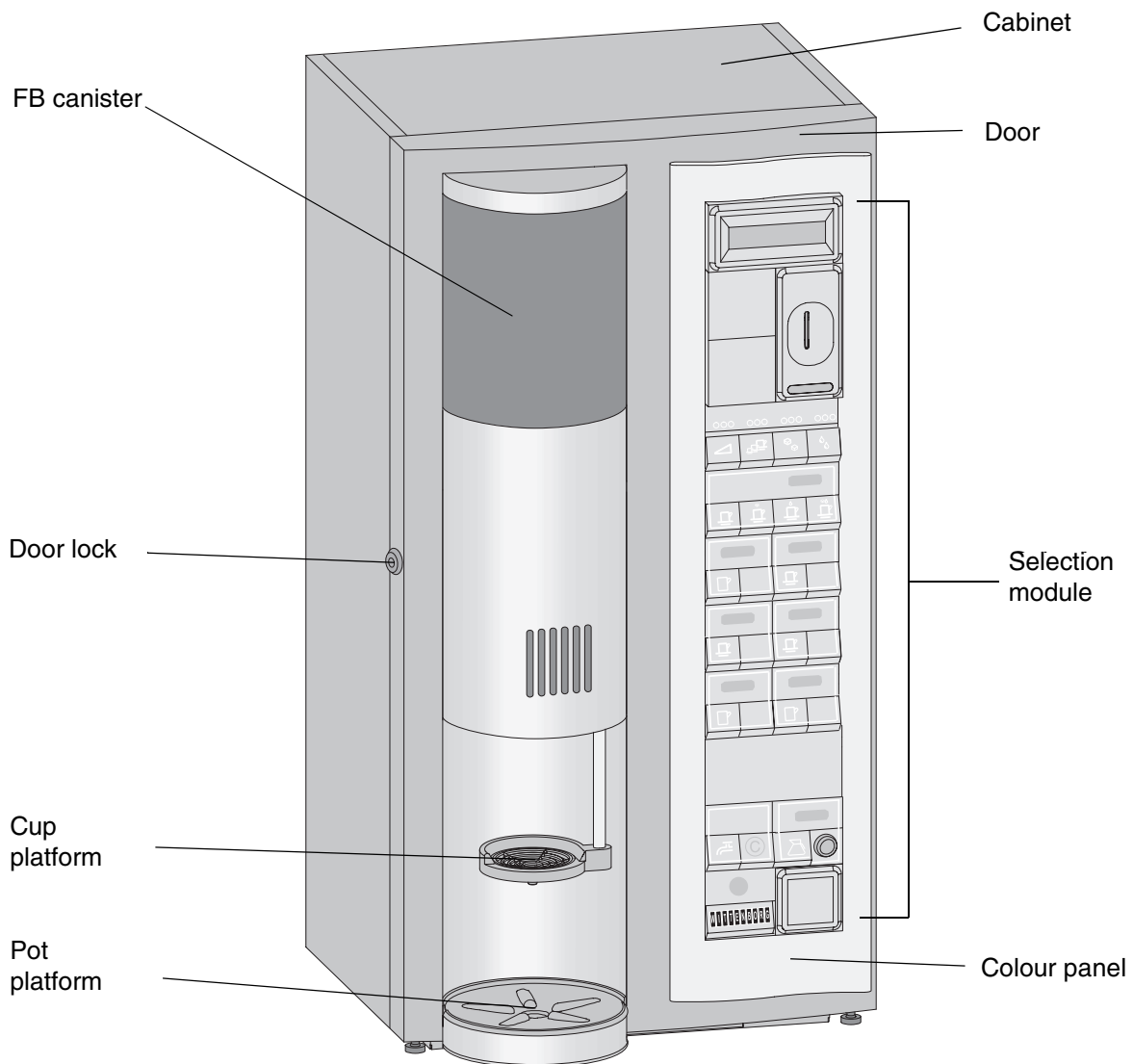
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Product presentation

Overview

- Identifying individual parts
- Examples of selection modules
- Inside view of machine
- Selection module
- Payment panel
- Selection panel
- Multi-brew panel
- Choices for drink dispensing
- Data retrieval and/or programming
- Maintenance and care
- Opening the machine door
- Quick key
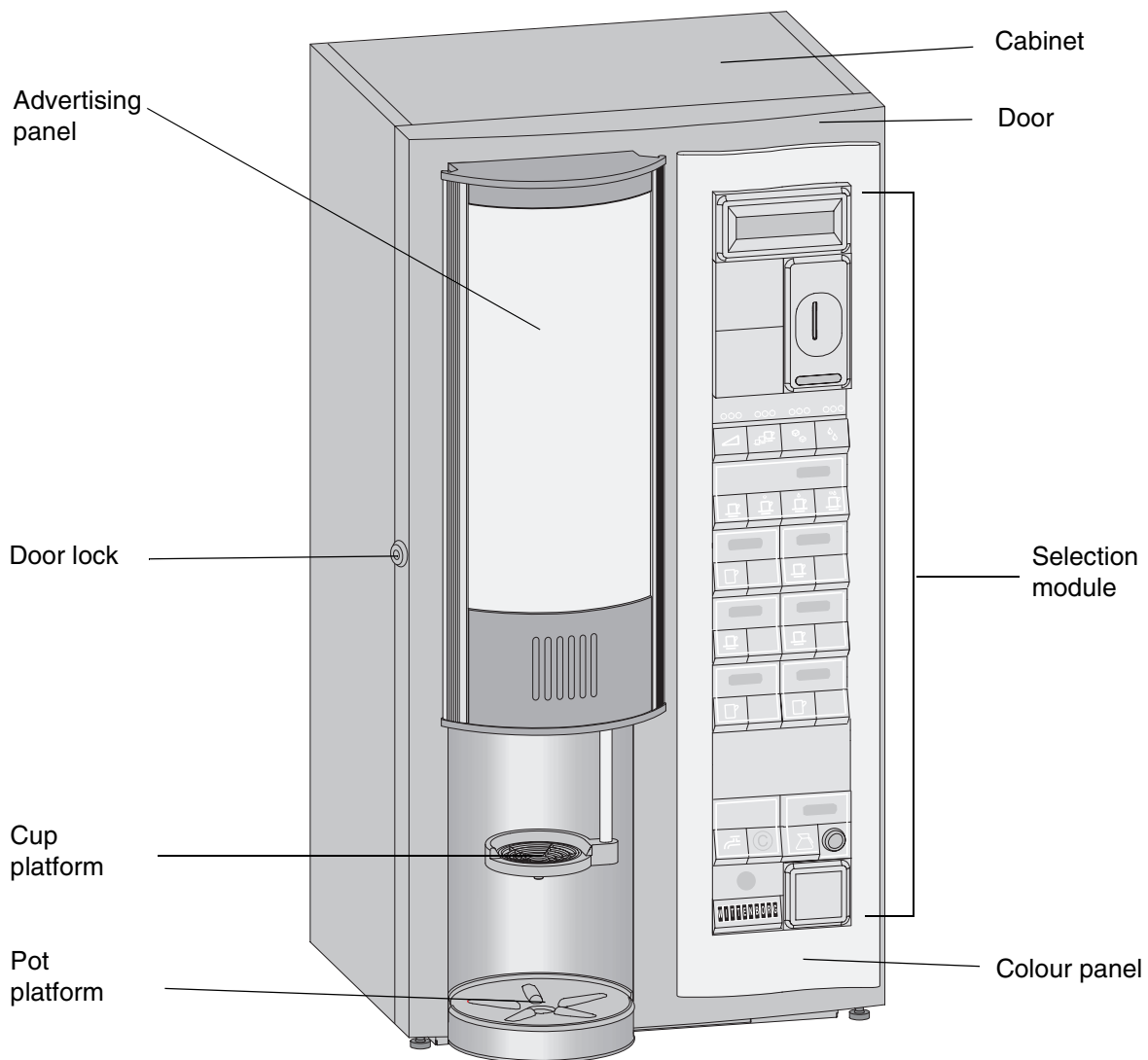
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Identifying individual parts

Machine front   This is the fresh brew version:

FB canister

Door lock

Cup
platform

Pot
platform

Cabinet

Door

Selection
module

Colour panel

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Identifying individual parts

Machine front   This is the instant version:

Advertising panel

Cabinet

Door

Door lock

Selection module

Cup platform

Pot platform

Colour panel

Identifying individual parts

Machine front   ES:

ES canister

Cabinet

Door

Door lock

Selection module

Cup platform

Pot platform

Colour panel

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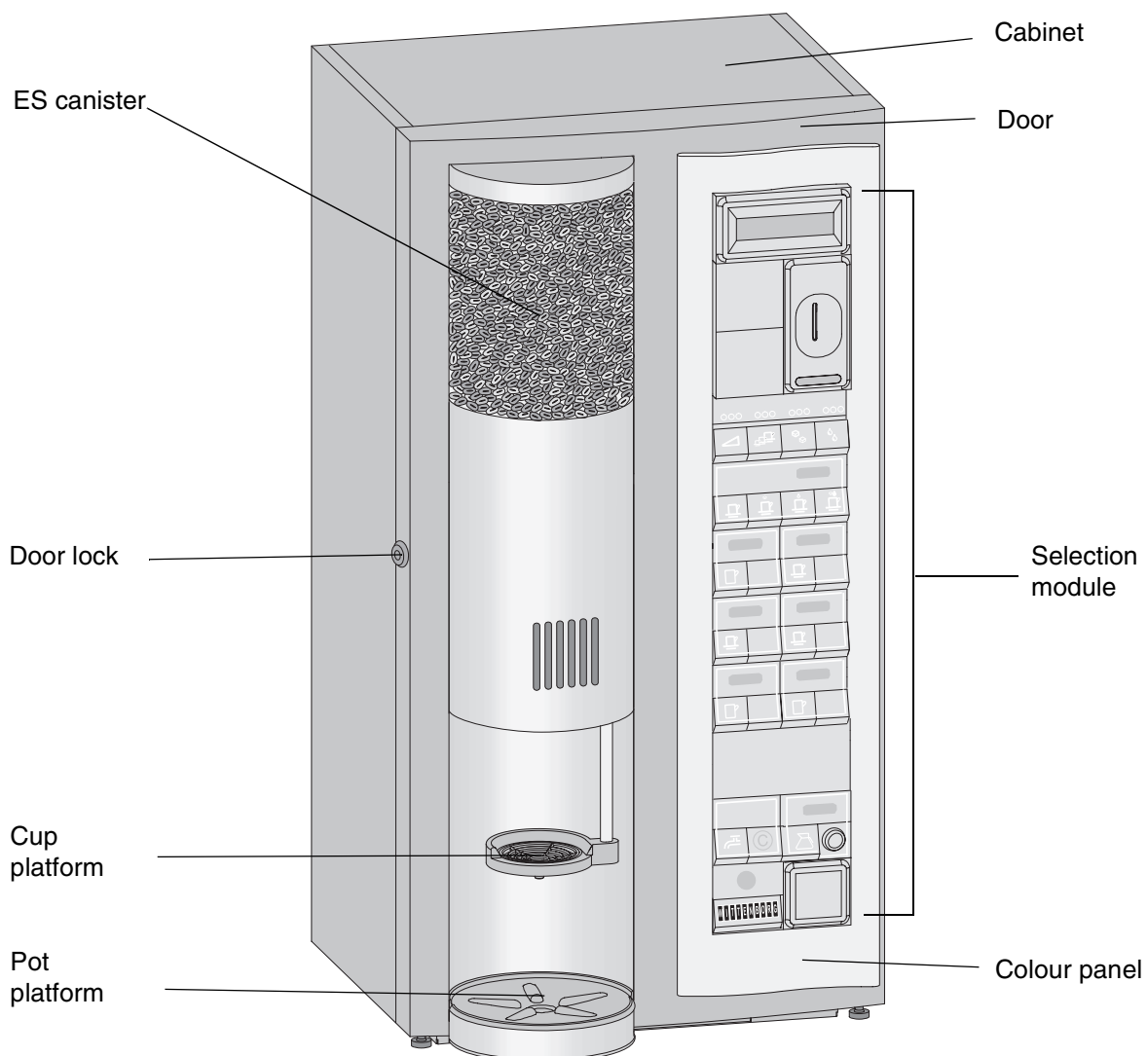
Examples of selection modules

Overview

Coin   Card

Drink Strength	Drink Size	Extra Sugar	Extra Whitener
○○○	○○○	○○○	○○○

Fresh brewed coffee

Black	Black with sugar	White no sugar	White with sugar

Cappuccino	Cafe au lait

Espresso choc	Wiener Melange

Chocolate	Chocomilk

Water hot	

	Multibrew

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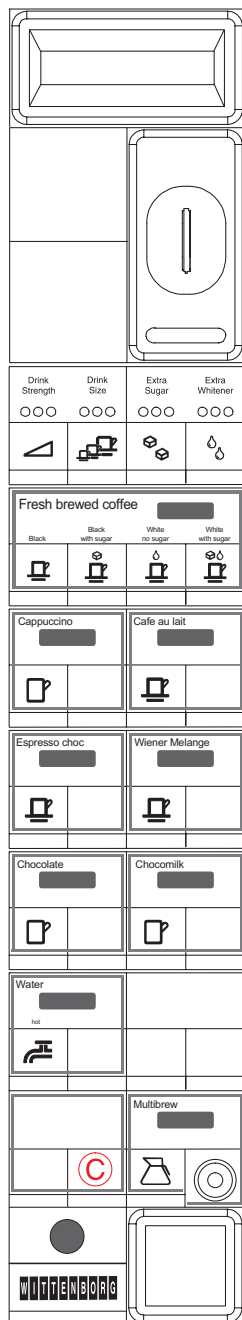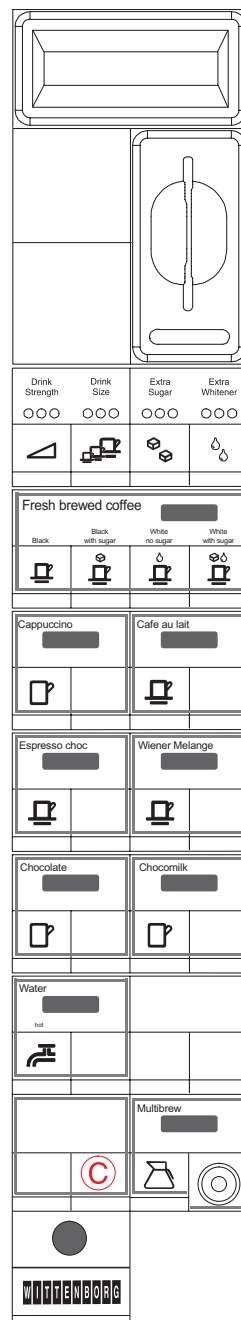
Inside view of machine

Components of the cabinet

FB

Lid for canister

FB canister

FB brewer

Filter plate holder

Branch pipe

Waste bucket

IN ingredient canisters

Outlet spouts

Funnel extensions

Mixing funnels

Main switch

Drip tray

Components of the cabinet   IN

IN ingredient canis-
ters

Outlet spouts

Funnel extensions

Mixing funnels

Branch pipe

Main switch

Drip tray

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Components of the cabinet   ES

Lid for canister

ES coffee bean canister

Coffee grinder

ES brewer

Branch pipe

Waste bucket

IN ingredient canisters

Outlet spouts

Funnel extensions

Mixing funnels

Main switch

Drip tray

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Components of
the door

Lock for cash box

Cash box

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Selection module

Introduction	The selection module is your means of communication with the vending machine. Through this module, you can communicate your choice of drink and your means of payment.
Description	On the right hand side of the machine front, the selection module is situated. The selection module consists of:

- Payment panel
- Selection panel
- Multi-brew panel
- Emergency stop button for multi brew function
- Optical interface for data output

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Illustrations   The illustrations below show the selection module and its components:

Selection
Module

Payment
Panel

Selection
Panel

Multibrew
Panel

Emergency
stop button
for multi
brew func-
tion

Optical
interface
(data
output)

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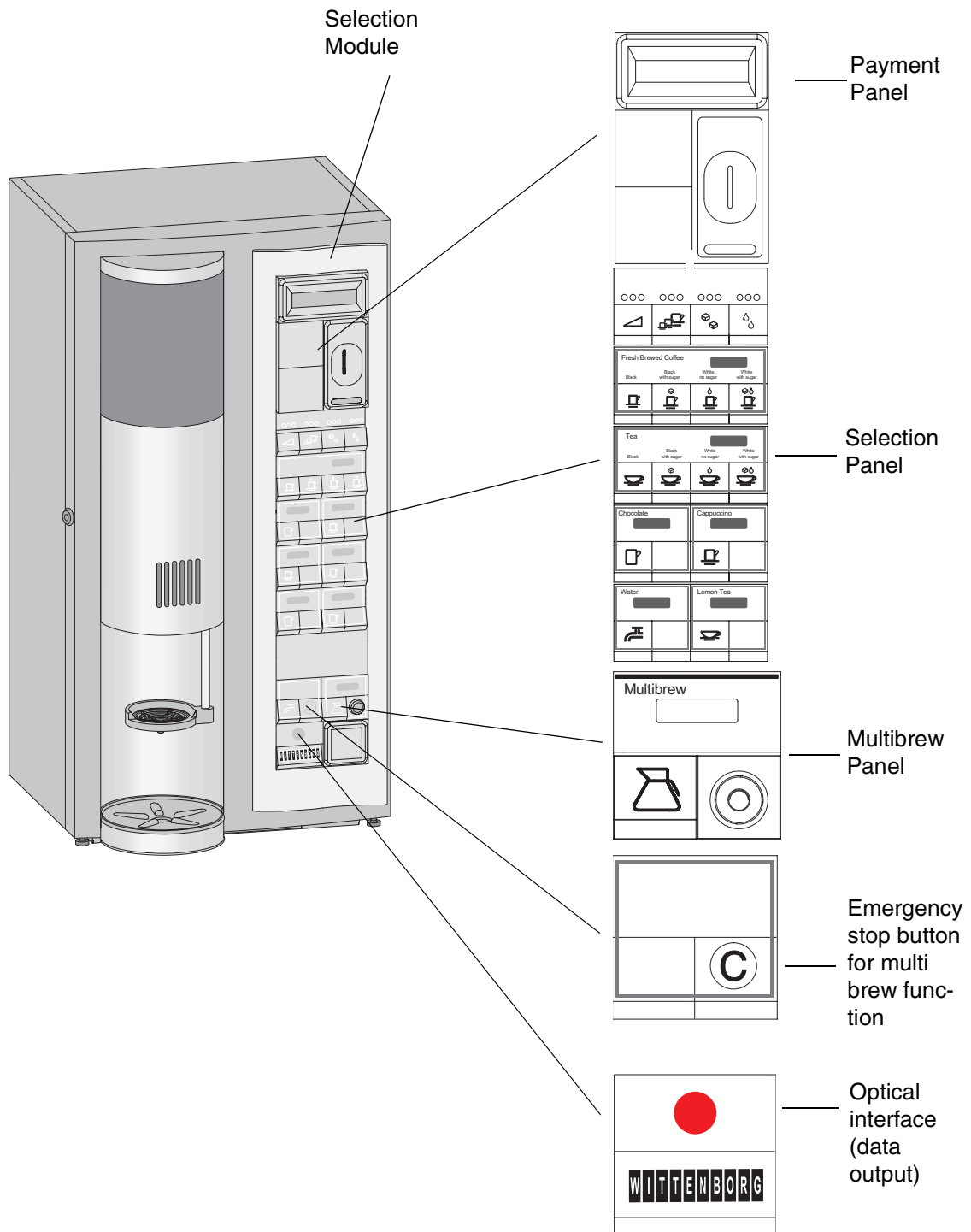
Payment panel

Description

The Payment Panel is the part of the Selection Module where you

- pay in cash,
- pay with card,
- receive customer information

The Payment Panel is situated at the top in the Selection Module.
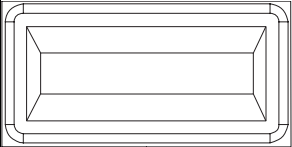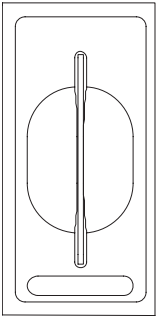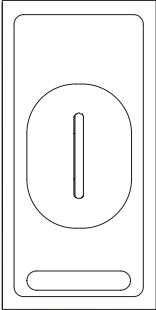
Illustrations

Below you see illustrations of the Payment Panel and its components:

Customer Information Display

Coin Insert

Customer Information Display

Card Insert

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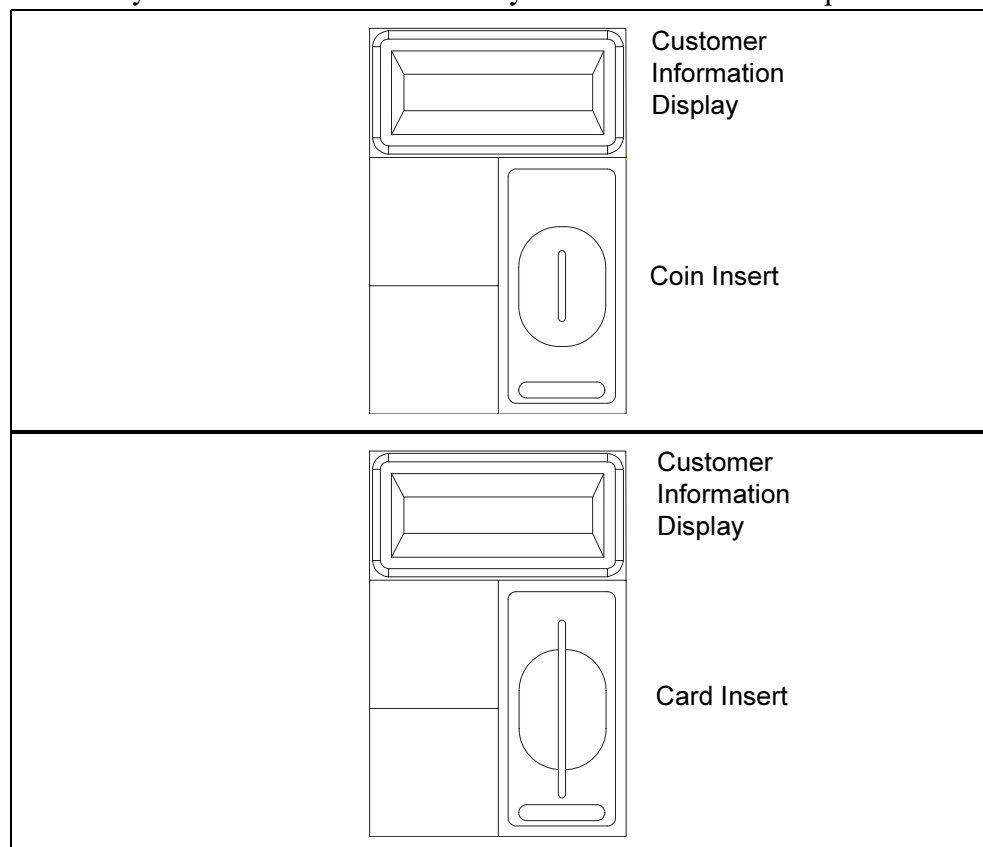
Functions

The table below describes the functions of the Payment Panel:
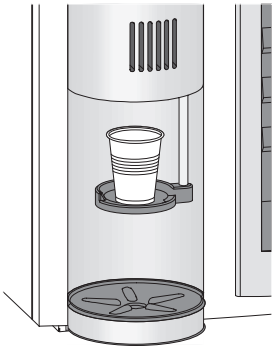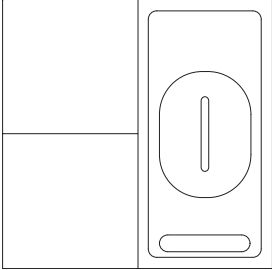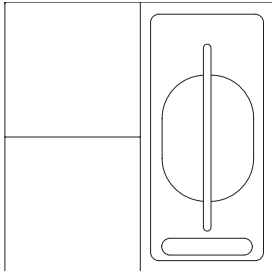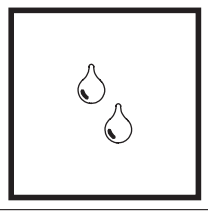
Part	Function
Customer Information Display	Shows • the price of the selected drink, or • the value of your inserted card, or • the amount of money you have inserted in coins and, shows the customer different predefined information texts.
Card Insert	The slot into which you insert your card in order to: • pay for the selected drink with card
Coin Insert	The slot into which you insert coins in order to: • to pay for the selected drink in cash

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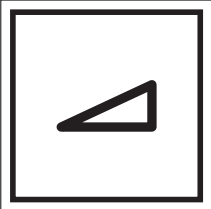
Selection panel

Introduction	The Selection Panel is where you make your choice among the vending machine beverages presented on the buttons on the Selection Panel.
	There are two different choice operations offered through the Selection Panel
	• Pre-selection
	• Selection
Pre-selection	Pre-selection is an act which results in a modification of a drink. When you press a Pre-selection Button, a drink is not dispensed.
Selection	Selection is an act which results directly in the dispensing of a drink when you press a Selection Button.
Remember	In order to modify a beverage, you must always remember to press a Pre-selection Button before you press a Selection Button!

Step	Action

Example   If you want a cup of coffee of maximum strength with extra whitener, follow these steps:

Step	Action
1.	Place a cup on the cup platform.
2.	Insert coins in coin slot: Coin Slot or card in card slot: Card Slot
3.	Press the Pre-selection Button for whitener

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Step	Action
4.	Press the Pre-selection Button for strength
5.	Press the Selection Button for coffee with whitener
6.	Take away your cup of coffee dispensed.

Description

The Selection Panel consists of:

- Pre-selection Buttons
- Selection Buttons

The Selection Panel is situated in the middle of the Selection Module.

Illustration

Illustration of different Selection Panels:

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Pre-selection buttons

This table describes the functions of the Pre-selection Buttons:

Button	Function
Strength 	The three small lights (LEDs) above the strength button determine the strength of the drink dispensed. Press the button untill the appropriate LED lights up: | LEDs above button	Function
---	---
	minimum strength
	normal strength
	maximum strength | **Note**: In stand-by position, the strength is always normal.
Size 	The three small lights (LEDs) above the size button determine the size of the drink dispensed. Press the button untill the appropriate LED lights up: | LEDs above button	Function
---	---
	small size
	normal size
	large size | **Note:** • If you select the small cup size, you get a small cup of extra strong coffee. • In stand-by position, the cup size is always normal.

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Button	Function
Sugar	The three small lights (LEDs) above the sugar button determine the size of the sugar portion. Press the button untill the appropriate LED lights up:

LEDs above button	Function
☀ ○ ○	small portion
○ ☀ ○	normal portion
○ ○ ☀	large portion

Note: In stand-by position, the portion size is always normal.

Button	Function
Whitener	The three small lights (LEDs) above the whitener button determine the size of the whitener portion. Press the button untill the appropriate LED lights up:

LEDs above button	Function
☀ ○ ○	small portion
○ ☀ ○	normal portion
○ ○ ☀	large portion

Note: In stand-by position, the portion size is always normal.

Note: There is a 10 sec. time-out on Pre-selection Buttons.

Selection Buttons	The Selection Buttons are grouped below the Pre-selection Buttons. The number of Selection Buttons varies along with the number of beverages with or without sugar or whitener. The function of each Selection Button is clearly illustrated by means of an icon on every button.

Example | Next you see different Selection Buttons and their functions:

Button Illustration	Function
	• A cup of coffee (black) • A cup of coffee with sugar • A cup of coffee with whitener • A cup of coffee with sugar and whitener
	• A cup of tea (black) • A cup of tea with sugar • A cup of tea with whitener • A cup of tea with sugar and whitener
	A cup of hot water

Price Labels	There are Price Label situated above every Selection Button, or group of Selection Buttons. On these labels, the individual prices of the drinks in question are shown.

Multi-brew panel

Introduction	The main function of the Multi-brew Panel is to offer the multi-brew option. This selection gives you the opportunity to have more than one drink dispensed at a time. In other words, you can buy eg a pot of coffee for a group of people in only one procedure.
Description	The Multi-brew Panel consists of the following parts: • Multi-brew Button • Discount Lock This panel is situated at the bottom of the Selection Module.
Illustration	This is an illustration of the Multi-brew Panel:
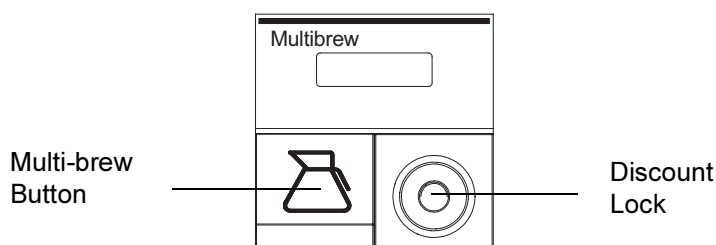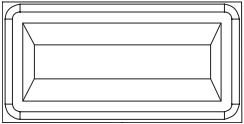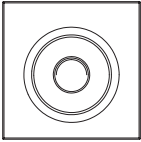
These are the parts and functions of the Multi-brew Panel.

Part	Function
Display	• The display shows the preset number of cups to be dispensed in the pot. • The number in the display steps up one number each time the Multi-brew Button is pushed (max. 15 dispensings - after 15 the counter returns to 1) • The number at the display steps down one number each time a cup is dispensed.
Multi-brew Button	• Pre-selection button; that is, before you push a Selection Button, you press the Multi-brew Button the number of times that you want dispensings in the pot.
Discount Lock	The keyhole for the Discount key. • When the key is in the lock, beverages, both Multi-brew and single vend, are dispensed at a preset discount (0-100).
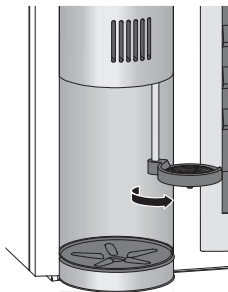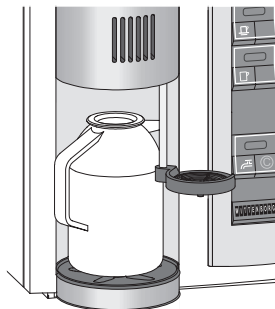
Multi-brew	There are two different ways in which you can perform a multi-brew vend:

1. With the use of a discount key.
2. Without the use of a discount key, i.e. payment is done with card or coins.

Procedure	Follow this procedure to multi-brew:

Step	Action	Machine Reaction
1.	Insert the key in the Discount Lock and turn clockwise.	The rebate function is activated.
2.	Swing cup platform out.	
3.	Place pot on pot platform.	
4.	Press the Multi-brew Button the number of times you want cups in the pot.	The display shows the preset number of dispensings and then steps up one number each time the button is pressed.
5.	Select drink by pressing the Selection Button.	The display steps back one number after each dispensing
6.	Remove the pot when the drinks have been dispensed.	
7.	Swing cup platform back.	

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Step	Action	Machine Reaction
8.	Turn and remove the key to close the rebate function.	

Notes
- If you suddenly need to interrupt the multi-brew in progress, simply press the emergency stop button.
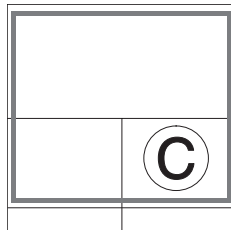
- The machine will not register a pot made of glass, therefore it should not be used.
  NB. If the cup sensor is deactivated a glass pot can be used.

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Choices for drink dispensing

Who?	The service technician can program the choices for drink dispensing.
Hot water	• Continuous dispensing Hot water dispensing is done continuously and uninterrupted as long as the corresponding button is pressed (only possible as a dispensing free of charge into your own cup) • Portioned dispensing (see below)
Drinks: (Espresso-, freshly brewed and instant drinks)	Dispensing is done in portions (the portions can be programmed by the service technician) when pressing the corresponding button.
Portion sizes	Up to 330 ml (can be programmed)
Multi-brew	Pot dispensing max. 15 cups

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Data retrieval and/or programming

Data output

Data can be retrieved from the machine by using

- service mode (programming mode) of the machine using the selection buttons of the selection panel (audit and settings data can be read out)
- PC or terminal (plug connection to P12 on VMC only in VIDTS format) (settings data can be read out)
- hand-held terminal (data carrier) using a PDC in connection with the MID kit, this connection is available via the optical interface on the outside of the door (audit data can be read out)

Data input

Data can be programmed into the machine by using

- service mode (programming mode) of the machine using the selection buttons of the selection panel (settings data can be read in)
- PC or terminal (plug connection to P12 on VMC only in VIDTS format) (settings data can be read in)

Maintenance and care

Maintenance time schedule

- All items listed in this time schedule must be carried out in the intervals indicated here, otherwise the warranty becomes null and void.
- For cleaning use only cleaning agents and decalcifying agents that are approved by the food industry.
- Do not use scouring agents! Call a service technician if the vending machine is heavily calcified.
- Maintenance may only be carried out by trained personnel.
- Before starting the work read the corresponding sections in the operating instructions in order to enable you to exactly carry out the individual procedures.
- Before starting the cleaning work turn off the vending machine at the main switch.
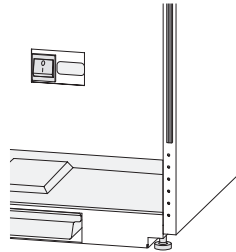
- Make sure that all components are installed correctly after the cleaning procedure. Carry out a functional test.
- Make sure that:
- the brewer is installed correctly and completely
- the outlet pipes are pushed downwards after mounting

Opening the machine door

Procedure

Follow these steps to unlock and open the machine door:

Step	Action	Illustration
1.	Turn the key clockwise in key-hole. Result: The door can be opened.	
2.	Open the door by swinging it out.	
3.	Close machine door in reverse order.	

If power is turned on, **be careful not to touch moving parts and electrical components!**

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Quick key

Quick rinse

The table below shows the standard quick key of the machine and its function:

Quick key	Function
C	Accesses the rinse function. NB. Reference to the section, "Quick rinse".

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Daily routines

Check list

- Daily cleaning
- Cleaning the FB unit
- Cleaning the funnel extensions, the mixing funnels, the whipper housing, and the outlet spouts of the instant dosing system
- Cleaning the espresso brewer unit
- Cleaning the pot platform, cup platform and the machine interior
- Rinsing
- Quick rinse
- Manual rinsed
- Total counter

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Daily cleaning

Introduction	The drip tray is equipped with a sensor, which detects when the drip tray is full.

Warning	Never open the machine during a brewing process.

Cleaning

Empty the drip tray and waste bucket as described in the procedure below:

Step	Action	Illustration
1.	Open the cabinet door and turn off the machine (main switch).	
2.	Remove the drip tray by pulling it forward. The drip tray can be carried in a vertical position and is best emptied at the corner.	
3.	Lift the front of the waste bucket slightly and remove from the machine.	
4.	Empty and clean the waste bucket and supply a new bin liner.	
5.	Place the waste bucket in the machine.	
6.	Place the drip tray in position.	
7.	Turn on the machine (main switch) and close the cabinet door.	

Notes

- If using filter paper it is recommended that the filling level be checked more often and that two rinse cycles are carried out before removing the waste bucket
- Overfilling the waste bucket and/or drip tray may lead to machine malfunction

Cleaning the inside and outside of the machine
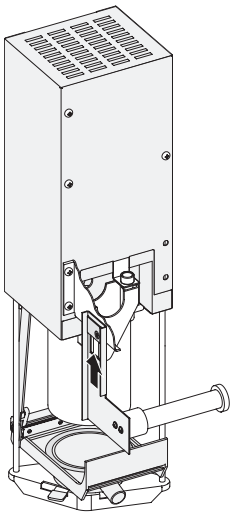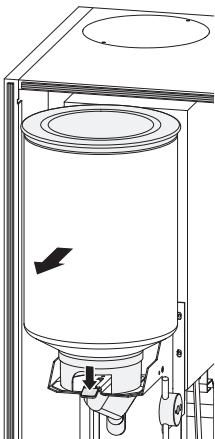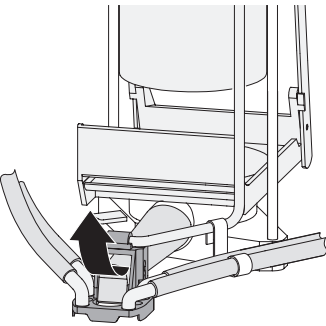
Clean the dispensing area, the inside of the cabinet door and the external parts of the machine with a soft, damp cloth and then wipe dry.
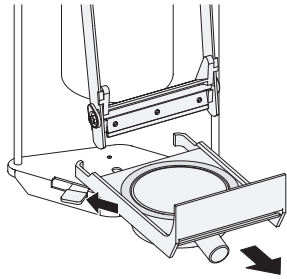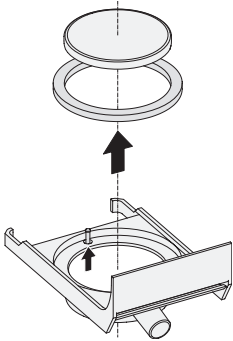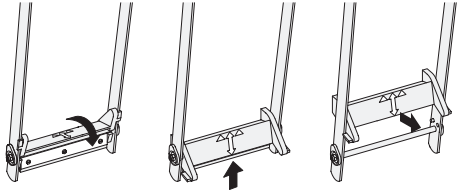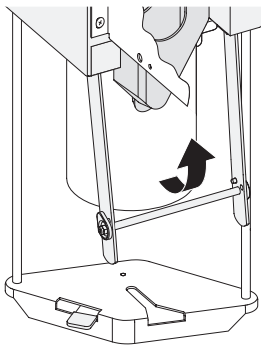
Never use scouring agents!
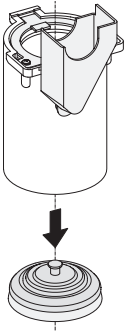
Cleaning the FB unit

Cleaning the brewer

Follow this procedure to clean the brewer:

Step	Action	Illustration
1.	Open the door and turn off the machine (main switch).	
2.	Remove filter roll holder if installed.	
3.	Press the tab at the bottom of the canister console and remove the FB canister by pulling it forward and outwards.	
4.	Move the branch pipe outwards and upwards.	

Step	Action	Illustration
5.	Press the release lever on the filter plate holder and remove the filter plate holder by pulling forward.	
6.	Press the ejector pin beneath to push out the sealing ring and the filter plate.	
7.	Remove scraper • turn and lift straight up to remove.	
8.	Remove brewer cylinder • place fingers under front of chamber and pull forward.	

Step	Action	Illustration
9.	Remove piston from brewer cylinder.	
10.	Clean all parts removed (filter plate, filter plate holder, sealing ring, scraper, piston and brewer cylinder) in hot water with cleansing agent. Rinse thoroughly in clean water and wipe parts dry.	
11.	Reassemble parts in reverse order.	

Note

Make sure that piston in cylinder is properly positioned all the way to the top. Also make sure that piston engages when cylinder is put into place. Take care that the filter plate holder is guided between the scraper arms and that the lock engages.
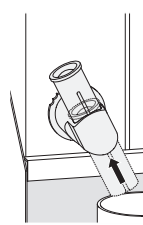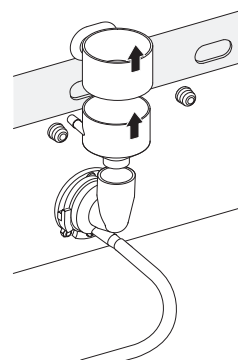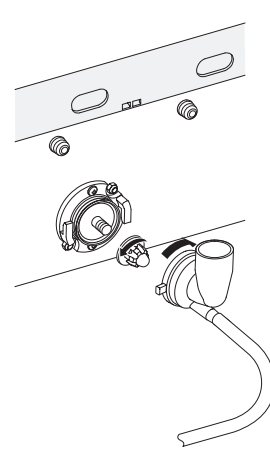
Cleaning the funnel extensions, the mixing funnels and the whipper housing of the instant dosing system
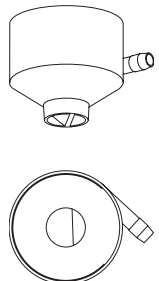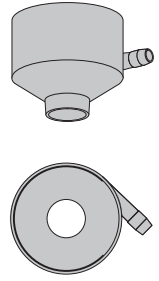
Warning | This cleaning procedure must be carried out for all instant dosing systems.

Procedure | Follow these steps to clean the instant dosing systems:

Step	Action	Illustration
1.	Open the door and turn off the machine (main switch).	
2.	Push the outlet pipes upwards.	
3.	Take off the funnel extensions and remove the mixing funnels.	
4.	Remove the whipper housing by turning it to the right, remove the whipper blade by turning it to the left.	
5.	Clean the components in hot water using a cleaning agent and wipe them thoroughly dry.	

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Step	Action	Illustration
6.	Reinstall the cleaned components in reverse order. NB. Instructions for reinstallation: • Make sure that the mixing funnels are remounted correctly:	
	Shared mixing funnel for sugar and whitener. It has a small opening.	
	Mixing funnel for all other IN ingredients. It has a large opening.	

Note

Make sure that
- the hoses are in the correct positions
- the tight fastening of the hoses is checked
- all components - especially the outlet pipes are completely dry
- the outlet pipes are pushed downwards
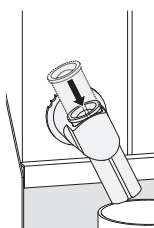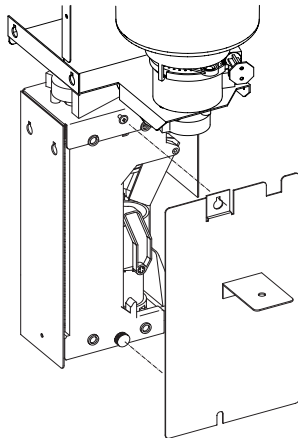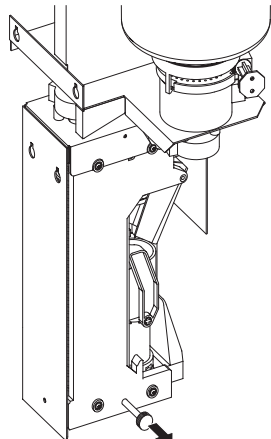
- the water connection is installed correctly when mounting the whipper housing
- the funnel extensions are mounted into the gap of the mixer console
- mixing funnels, are remounted correctly and flush mixing funnels
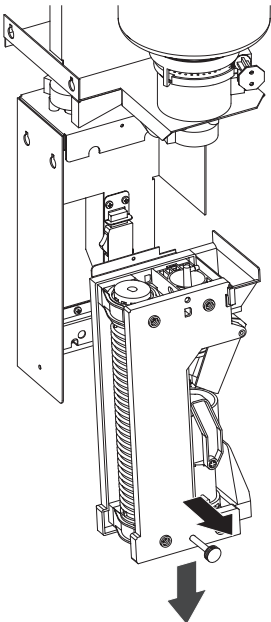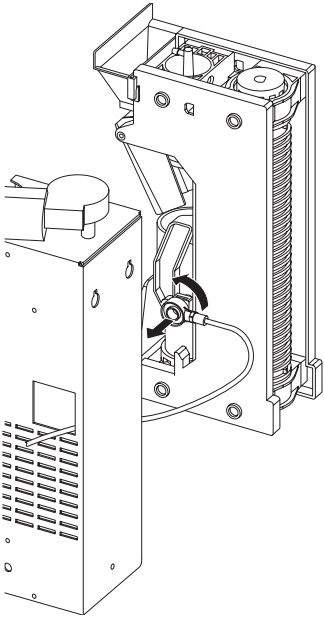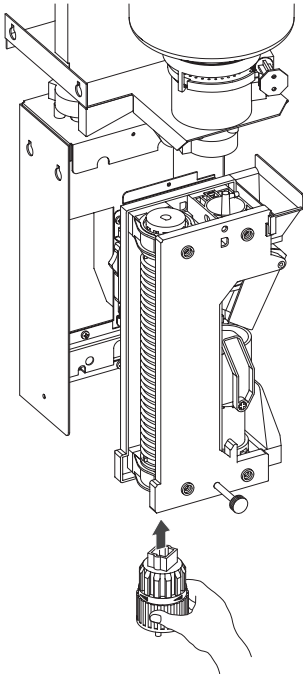
Cleaning the espresso brewer unit

Procedure

Follow this procedure to clean the brewer:

Step	Action	Illustration
1.	Open the cabinet door and turn off the machine (main switch).	
2.	Remove the waste bucket.	
3.	Remove heat insulation cover.	
4.	Pull securing pin outwards.	

Step	Action	Illustration
5.	Release brewer.	
6.	Disconnect water outlet tube from brewer by turning it anti-clockwise. NB. You must be careful how you disconnect it in order not to break the pin.	
7.	Tilt brewer outwards and lift it out.	
8.	Rinse the brewer in warm water. NB. If the brewer is very dirty, put it in a bucket of water and brush it clean.	
9.	Clean bottom of machine.	

Step	Action	Illustration
10.	Reinstall brewer into machine. Note: Remember to fasten securing pin.	
	Note: If you cannot replace the brewer correctly after cleaning, this is probably because you have moved something during cleaning. In that case you need the special multifunctional tool to restore the situation.	
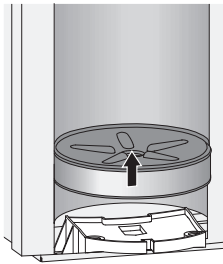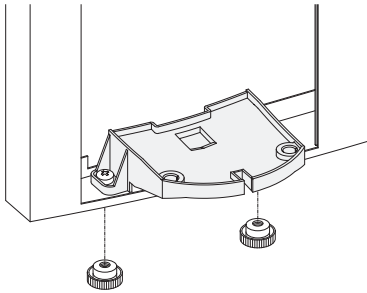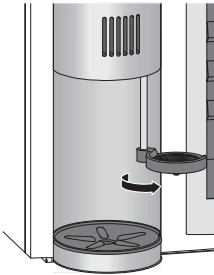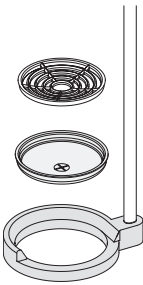
Note   Never load the brewer into the dishwasher!

WITTENBORG

Cleaning the pot platform, cup platform and the machine interior

Procedure

Follow these steps to clean the pot platform, cup platform and the machine interior:

Step	Action	Illustration
1.	Lift up the pot platform and clean it in hot water without soaking.	
2.	Open the cabinet door, turn off the machine (main switch).	
3.	Remove the pins to take out the bottom and then clean it.	
4.	Move the cup platform aside.	
5.	Take the cup platform apart and clean it.	
6.	Reinstall the cleaned components in reverse order.	

Step	Action	Illustration
7.	Wipe cabinet interior with a slightly damp cloth.	

Note

When the vending machine is used frequently we recommend cleaning the pot platform, cup platform and the machine interior daily.

Rinsing
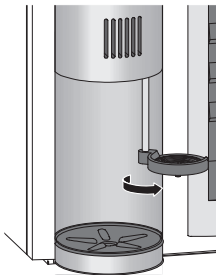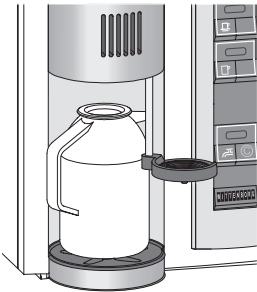
Warning	**Hot water is used in the rinsing process. There is a danger of scalding! Keep hands and other body parts away from the dispensing area during rinsing.**
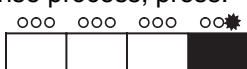
Rinsing processes	Two different rinsing processes can be carried out: • Brewer/mixer rinsing • Brewer rinsing with rinsing stop
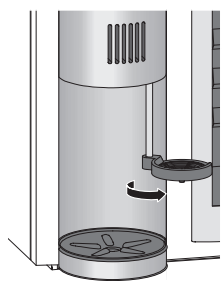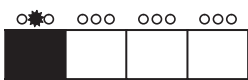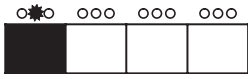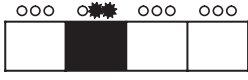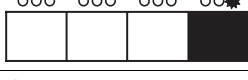
Brewer/mixer rinsing

Step	Action	Display shows
1.	Open the cabinet door (the machine will automatically start in the Total Counter setting and this will be shown in the display).	Nres tot: xxxxx Res tot: xxxxx
2.	Press:	Rinse <down>
3.	Close cabinet door.	
4.	Move the cup platform aside.	
5.	Place a pot (minimum 1.5 l) on the pot platform in the dispensing area.	
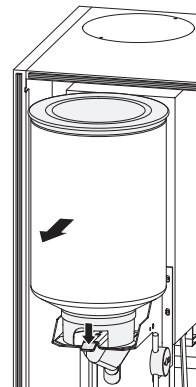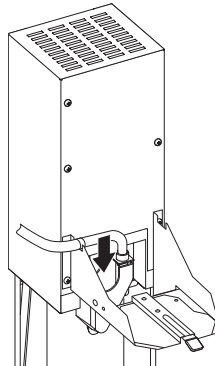
Step	Action	Display shows
6.	To access brewer/mixer rinse process, press: ○✹○ ○○○ ○○○ ○○○ [■][ ][ ][ ]	Rinse brewer/mixer ->
7.	Press: ○○○ ○✹✹ ○○○ ○○○ [ ][■][ ][ ]	Start rinsing Press <+>
8.	To start rinse process, press: ○○○ ○○○ ○○○ ○○✹ [ ][ ][ ][■]	Rinse started Please wait!
9.	Empty the pot, place it on the pot platform and repeat the process if necessary.	
10.	To return to Operator Mode, press 3 times on: [pot icon]	Operating mode WAIT

Brewer rinsing with rinsing stop

Step	Action	Display shows
1.	Open the cabinet door (the machine will automatically start in the Total Counter setting and this will be shown in the display).	Nres tot: xxxxx Res tot: xxxxx
2.	To access rinsing function, press: ○○○ ○✹✹ ○○○ ○○○ [ ][■][ ][ ]	Rinse <down>
3.	Close cabinet door.	
4.	Move the cup platform aside. 	

Step	Action	Display shows
5.	Place a pot (minimum 1.5 l) on the pot platform in the dispensing area.	
6.	To access brewer rinsing with rinsing stop, press:	Rinse brewer/mixer ->
7.	And once again, press:	Rinse brewer with stop ->
8.	To access rinsing process, press:	Start rinsing press <+>
9.	To move the brewer into the position where cleaning agent can be added, press:	Rinse brewer with stop ->
10.	And once again, press:	Start rinsing press <+>
11.	To start rinse process, press:	Add cl. agent and close door!
12.	Open the door.	
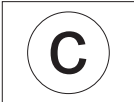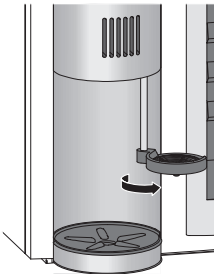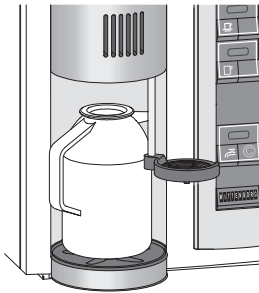
Step	Action	Display shows
13.	Remove the FB canister.	
14.	A cleaning or a decalcifying agent can now be added. **Warning: Most decalcifying agents are caustic. To protect your eyes and your skin follow the manufacturer's instructions.**	
15.	Close the door. The rinsing process will proceed automatically. Water is added to the cleaning or decalcifying agent. After 10 seconds water will be dispensed into the pot in the dispensing area. 3 rinsing cycles will be carried out automatically. NB: All 3 rinsing cycles must be carried out so that no residues of the cleaning agents remain in the machine. If necessary, repeat this procedure.	
16.	Empty the pot.	
17.	Open the machine door.	
18.	Reposition FB canister.	
19.	Close the machine door.	

Step	Action	Display shows
20.	To return to Operator Mode, press 3 times on:	Operating mode WAIT

Quick rinse

Procedure

To get to the rinsing function quickly, follow the procedure below:

Step	Action	Display shows
1.	Open the machine door.	
2.	To access the rinse function, press: C	start rinsing press <+>
3.	Close the machine door.	
4.	Move the cup platform aside. 	
5.	Place a pot (minimum 1.5 l) on the pot platform in the dispensing area. 	
6.	To start the rinsing process, press: ○○○ ○○○ ○○○ ○○☀	Rinse started Please wait!
7.	Empty the pot, place it on the pot platform and repeat the process if necessary.	
8.	To return to Operator Mode, press 3 times on: ⊿	Operating mode WAIT

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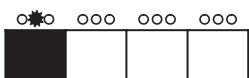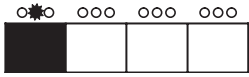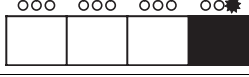
Manual rinsed

Introduction

After having cleaned the brewer manually, you will have to enter the information into the machine system in order to reset the counter which records the allowed number of drinks dispensed within each cleaning interval.

Procedure

Follow this procedure to record that the brewer has been cleaned manually:

Step	Action	Display
1.	Open the cabinet door (the machine will automatically start in the Total Counter setting and this will be shown in the display).	Nres tot: xxx Res tot : xx
2.	Press: Note: This field may not be shown, it's dependent on machine setting.	Filling <down>
3.	Press:	Rinse <down>
4.	Press:	Rinse brewer/mixer →
5.	To access the procedure for recording that the brewer has been cleaned manually, press:	Manual rinsed press <+>
6.	To record that the brewer has been cleaned, press:	Rinse <down>
7.	To return to Operating Mode, press the following button twice:	Operating mode WAIT !

Note

This function is optional.

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Total counter

Introduction	The display will show the total number of dispensed portions (non-resettable) and the total number of dispensed portions since last resetting (deleting) the counters.

Procedure	Follow this procedure to view the totals counters:

Step	Action	Display
1.	Open the cabinet door (the machine will automatically start in the Total Counter setting and this will be shown in the display).	Nres tot: xxx Res tot : xx
2.	To return to Operating Mode, press the following button twice: 	Operating mode WAIT !

Weekly routines
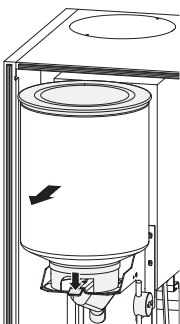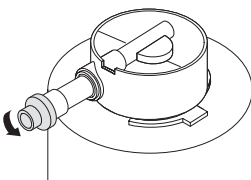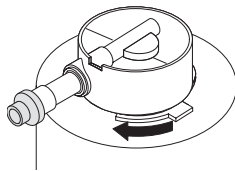
Check list

- Cleaning the FB canister
- Cleaning the ingredient canisters and the ingredient canister shelf
- Cleaning the ES coffee bean canister
- Cleaning the sugar canister
- Cleaning the ingredient dust filter
- Cleaning the drip tray
- Cleaning the waste bucket and the bottom plate
- Refilling the FB canister
- Refilling the instant ingredient canisters
- Refilling the ES coffee bean canister
- Refilling the sugar canister
- Canisters filled

Cleaning the FB canister

Procedure

Follow this procedure to clean the FB canister

Step	Action	Illustration
1.	Open the machine door and turn off the machine (main switch).	
2.	Depress the tab at the bottom of the canister console and re-move the FB canister by pulling it forward and outwards.	
3.	Empty the canister.	
4.	Place the canister upside down on a table.	
5.	Loosen the remaining coffee by turning the coupling and by knocking on the bottom of the dosing system.	
6.	Wipe the inside of the canister with a clean dry cloth. **Note:** Take care not to damage the mixer wire.	
7.		

Proceed to	Go to
end the cleaning procedure	step 11
give a heavily soiled canister a more thorough clean	step 8

Step	Action	Illustration
8.	Loosen the adjusting ring at the handle and carefully remove the dosing system. **Note:** Take care not to damage the mixer wire.	
9.	Clean the canister in warm water and wipe it dry. **Note:** Do not use a brush.	
10.	Reposition the dosing system.	
11.	Fill and reinsert the canister.	

Note	The canister may not be cleaned in a dishwasher.

Cleaning the ingredient canisters and the ingredient canister shelf
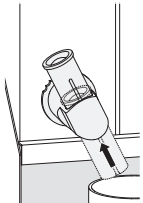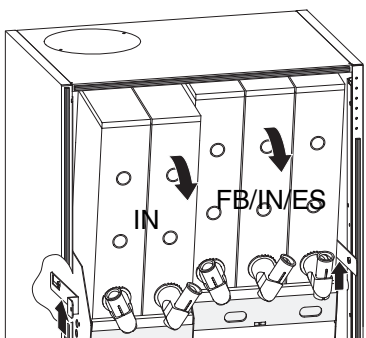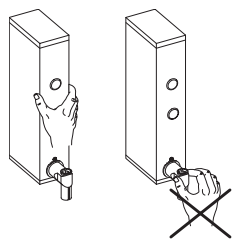
Warning	There is a danger of injuries due to sharp edges!
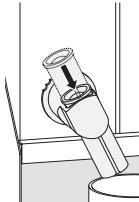
Notes	• This cleaning procedure must be carried out when changing the product. • Make sure that after the cleaning procedure all IN canisters are installed in their original positions.

Procedure — Follow these steps to clean the IN canisters and the IN canister shelf:
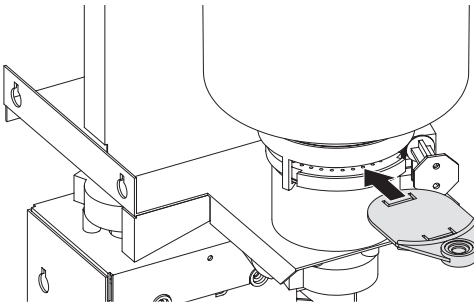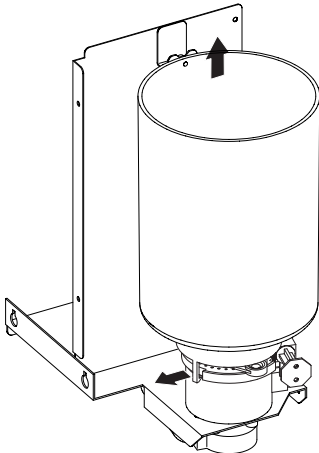
Step	Action	Illustration
1.	Open the cabinet door and turn off the machine (main switch).	
2.	The opening of the canisters are locked by pushing the outlet tubes upwards.	
3.	The canisters can be removed by releasing the securing bar by lifting upwards and pulling forwards. The canisters will tilt slightly forwards.	
	Note: Never take a grip on the outlet spouts when removing canisters.	
4.	Remove the canisters and empty.	
5.	Wipe off the inside of the canisters with a dry cloth. In case of heavy soiling clean it in hot water. Note: Let canisters dry completely before refilling.	
6.	Wipe off the instant canister shelf with a damp cloth.	

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Step	Action	Illustration
7.	Mounting is done in reverse order. Note: The outlet spouts must be brought back into their open positions by pushing them downwards.	

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Cleaning the ES coffee bean canister

Procedure

Follow these steps to clean the ES coffee bean canister:

Step	Action	Illustration
1.	Open the cabinet door and turn off the machine (main switch).	
2.	Insert shutter, bean stop to closed position to prevent coffee beans from falling out of the canister.	
3.	Remove canister lid.	
4.	Remove canister by releasing it from • the bracket at the rear of canister • the hook at the bottom of canister	
5.	Empty the canister.	
6.	Place the canister on a table.	
7.	Wipe the inside of the canister with a clean dry cloth.	
8.		

Proceed to	Go to
end the cleaning procedure	step 15
give a heavily soiled canister a more thorough clean	step 9

Step	Action	Illustration
9.	Place the canister upside down on a table.	
10.	Remove shutter, bean stop.	

Step	Action	Illustration
11.	Loosen the adjusting ring at the handle and remove canister holder and adjusting ring.	
12.	Clean all parts in warm water and wipe them dry.	
13.	Reposition adjusting ring.	
14.	Reposition canister holder.	
15.	Insert shutter, bean stop to closed position to prevent coffee beans from falling out of the canister.	
16.	Fill and reinsert the canister. Note: • Make sure that canister is properly repositioned. • Remember to pull out shutter, bean stop to open position after canister is repositioned.	

Note

• The canister is not dishwasher safe.
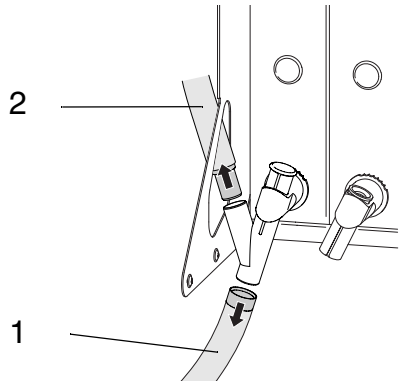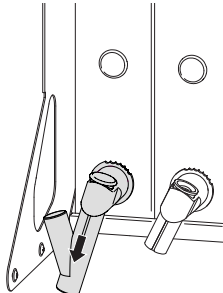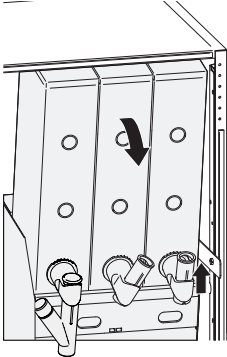
Cleaning the sugar canister
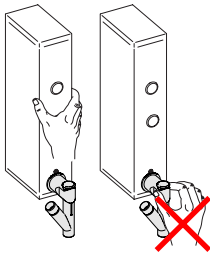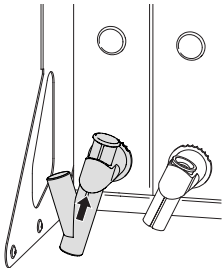
Warning	There is a danger of injuries due to sharp edges!

Procedure

Follow these steps to clean the sugar canister:

Step	Action	Illustration
1.	Open the cabinet door and turn off the machine (main switch).	
2.	Remove sugar outlet hose (1) from sugar outlet spout, then remove sugar fan hose (2).	
3.	Lock the sugar outlet tube by pushing downwards.	
4.	The canister can be removed by releasing the securing bar by lifting upwards and pulling forwards. The canisters will tilt slightly forwards.	

Step	Action	Illustration
	Note: Never take a grip on the outlet spout when removing canister.	
5.	Remove the canister and empty.	
6.	Wipe off the inside of the canister with a dry cloth. In case of heavy soiling clean it in hot water. Note: Let canisters dry completely before refilling.	
7.	Wipe off the sugar canister shelf with a damp cloth.	
8.	Mounting is done in reverse order. Note: The sugar outlet spout must be brought back into its open position by pushing it upwards.	
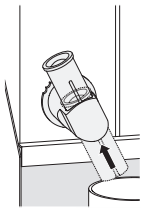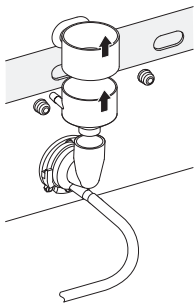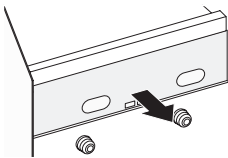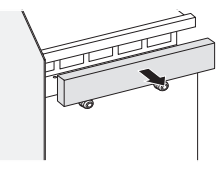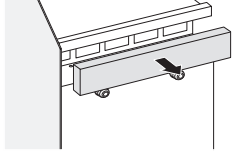
Cleaning the ingredient dust filter
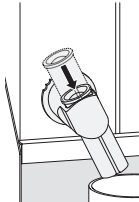
Introduction   The ingredient dust filter should be cleaned after approx. 10,000 dispensings.

Procedure   Follow these steps to clean the ingredient dust filter:

Step	Action	Illustration
1.	Open the cabinet door and turn off the machine (main switch).	
2.	Lock the outlet spouts by pushing upwards.	
3.	Take off the funnel extensions and remove the mixing funnels.	
4.	Place fingers in the holes and pull the filter unit forward until a slight resistance is felt.	
5.	Lift the filter unit slightly upwards and pull forward to remove.	
6.	Remove filter.	
7.	Rinse the filter thoroughly in hot water with added cleaning agent.	
8.	Let the filter dry completely before re-inserting.	
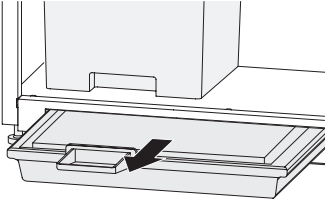
Step	Action	Illustration
9.	Mounting is done in reverse order. Note: The outlet spouts must be brought back into their open positions by pushing them downwards.	

Cleaning the drip tray
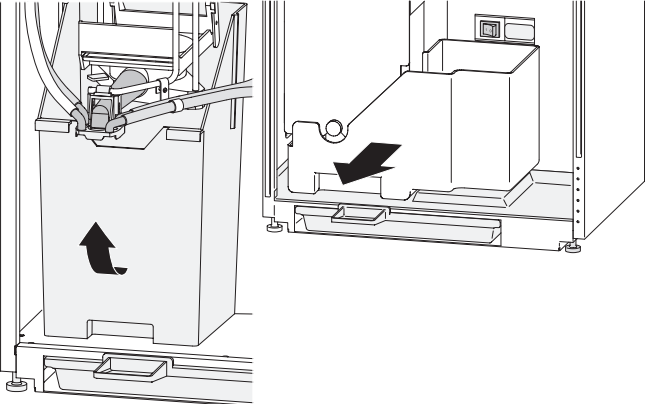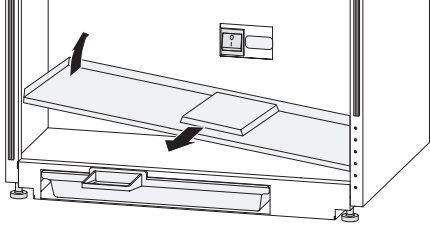
Procedure
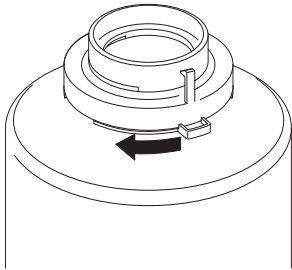Follow these steps to clean the drip tray:

Step	Action	Illustration
1.	Open the cabinet door and turn off the machine (main switch).	
2.	Remove the drip tray by gently pulling it forward.	
3.	Empty the drip tray.	
4.	Clean the drip tray with vinegar. The drip tray sensor will be moved automatically.	
5.	Mounting is done in reverse order.	
6.	After installation check whether the drip tray has been mounted properly.	

Cleaning the waste bucket and the bottom plate

Procedure

Follow these steps to clean the waste bucket and the bottom plate:

Step	Action	Illustration
1.	Open the door and turn off the machine (main switch).	
2.	Lift the waste bucket slightly, and remove it from the vending machine.	FB ES
3.	Empty the waste bucket and clean it.	
4.	Lift the bottom plate up, and take it out of the machine.	
5.	Clean the bottom plate with a damp cloth.	
6.	Remount in reverse order. Note: Ensure that the branch pipe has been placed correctly.	

![WITTENBORG]
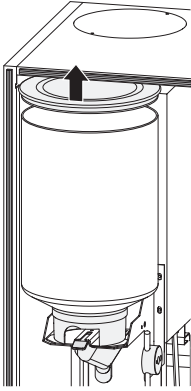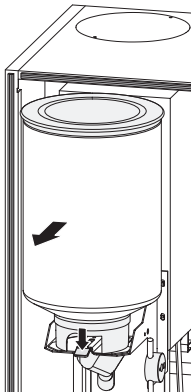
Refilling the FB canister

Introduction The actual ingredient level in the canister is always visible.

Procedure Follow these steps to refill the FB canister:

Step	Action	Illustration
1.	Open the cabinet door and turn off the machine (main switch).	
2.	Remove the lid at the top and re-fill coffee or tea.	
3.	Refilling can also take place by removing the canister.	
4.	Depress the tab at the bottom of the canister console and re-move the FB canister by pulling it forward and outwards.	
5.	Remove the lid.	
6.	Refill the FB canister.	
7.	Replace the lid.	
8.	Replace canister in the machine. Check to make sure that it is locked in place.	

Refilling the instant ingredient canisters
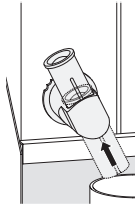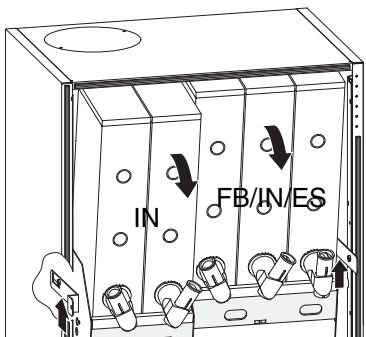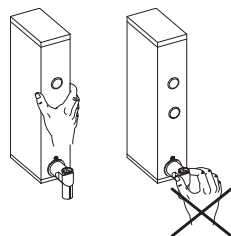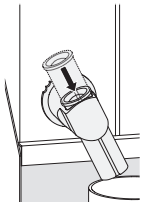
Warning	There is a danger of injuries due to sharp edges!
Notes	• Make sure that after refilling, all IN ingredient canisters are installed in their original positions. Make sure that the individual instant ingredients are not used after their date of expiration. • Always clean the instant ingredient canister when changing the product. For instant ingredients different dosing systems may have to be used. This depends on the manufacturer of the product. For more information refer to the service technician.
Procedure	Follow these steps to refill the ingredient canisters:
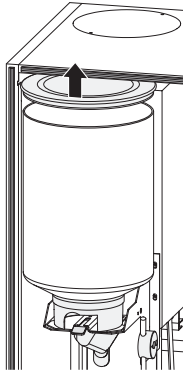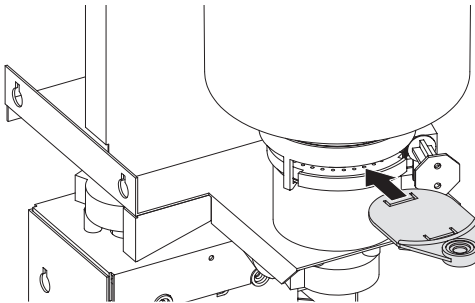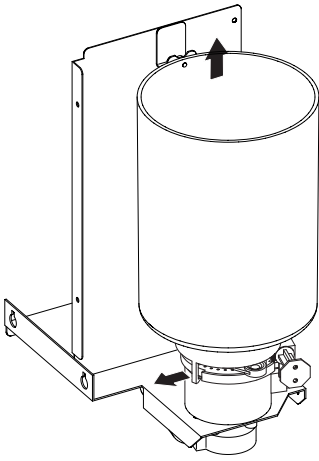
Step	Action	Illustration
1.	Open the door and turn off the machine (main switch).	
2.	Lock the outlet tubes by pushing upwards.	
3.	The canisters can be removed by releasing the securing bar by lifting upwards and pulling forwards. The canisters will tilt slightly forwards.	
	Note: Never take a grip on the outlet spouts when removing canisters.	
4.	Refill the instant ingredient canisters.	
5.	Wipe off the instant canister shelf with a damp cloth.	

Step	Action	Illustration
6.	Mounting is done in reverse order. Note: The outlet tubes must be pushed downwards after having mounted them.	

WITTENBORG

Refilling the ES coffee bean canister

Procedure

Follow these steps to refill the ES coffee beans canister:

Step	Action	Illustration
1.	Open the cabinet door and turn off the machine (main switch).	
2.	Remove the lid at the top and re-fill coffee beans.	
3.	Refilling can also take place by removing the canister.	
4.	Insert shutter, bean stop to closed position to prevent coffee beans from falling out of the canister.	
5.	Remove canister lid.	
6.	Remove canister by releasing it from • the bracket at the rear of canister • the hook at the bottom of canister	
7.	Refill the ES coffee bean canister.	

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Step	Action	Illustration
8.	Replace the lid.	
9.	Replace canister in the machine. Note: • Make sure that canister is properly repositioned. • Remember to pull out shutter, bean stop to open position after canister is repositioned.	
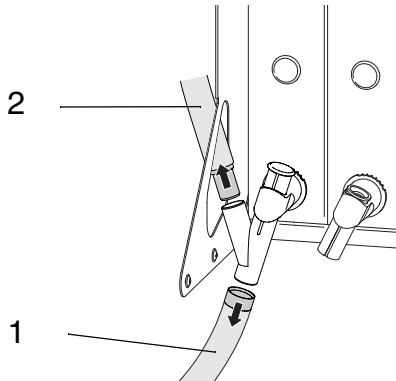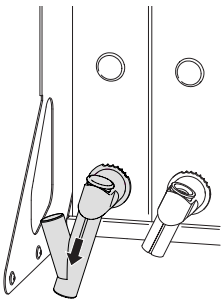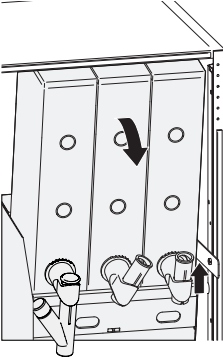
Refilling the sugar canister
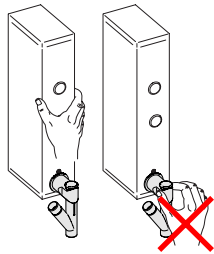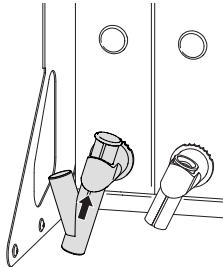
Warning	There is a danger of injuries due to sharp edges!

Procedure

Follow these steps to refill the sugar canister:

Step	Action	Illustration
1.	Open the door and turn off the machine (main switch).	
2.	Remove sugar outlet hose (1) from sugar outlet spout, then re-move sugar fan hose (2).	
3.	Lock the sugar outlet tube by pushing downwards.	
4.	The canister can be removed by releasing the securing bar by lift-ing upwards and pulling for-wards. The canisters will tilt slightly forwards.	

Step	Action	Illustration
	Note: Never take a grip on the outlet spout when removing canister.	
5.	Refill the sugar canisters.	
6.	Wipe off the sugar canister shelf with a damp cloth.	
7.	Mounting is done in reverse order. Note: The sugar outlet spout must be brought back into its open position by pushing it upwards.	
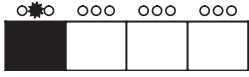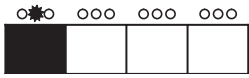
Canisters filled

Introduction   After having filled up the canisters, you will have to enter the information into the machine system, if you want to use the canister empty feeler option.

Procedure   Follow this procedure to record that the canisters have been filled up:

Step	Action	Display
1.	Open the cabinet door (the machine will auto-matically start in the Total Counter setting and this will be shown in the display).	Nres tot: xxx Res tot : xx
2.	Press: ○○○ ○✳ ○○○ ○○○	Filling <down>
3.	To access the procedure for recording that the canisters have been filled up, press: ○✳○ ○○○ ○○○ ○○○	All canisters full press <+>
	It is possible to register the filling up of one or more canisters, to switch between the different ingredients, press: ○✳○ ○○○ ○○○ ○○○	
4.	To record that the canisters have been filled up, or one or more canisters, press: ○○○ ○○○ ○○○ ○○✳	Filling <down>
5.	To return to Operating Mode, press the following button twice:	Operating mode WAIT !

Note   This function is optional.

WITTENBORG

Occasional routines

Check list
- Decalcifying the filter plate
- Replacing the filter plate
- Replacing the filter paper roll
- Cleaning the coffee grinder
- Setting the coffee grinder (coarse/fine grind)

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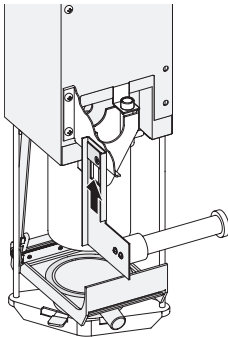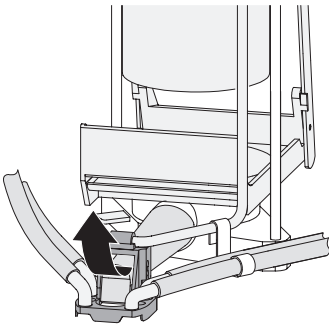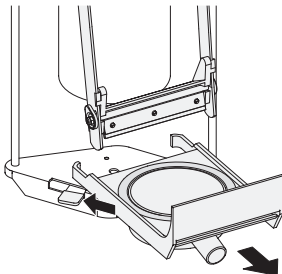
Decalcifying the filter plate
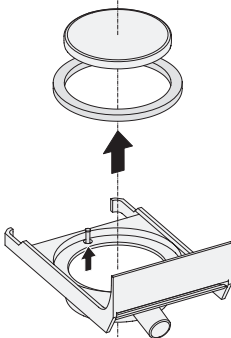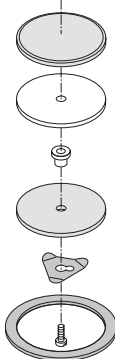
Introduction

The filter plate must be decalcified regularly after dispensing approx. 5,000 portions (depending on the water hardness). A special decalcifying agent can be ordered.

Procedure

Follow this procedure to decalcify the filter plate:

Step	Action	Illustration
1.	Open the cabinet door and turn off the machine (main switch).	
2.	Remove filter roll holder (if installed).	
3.	Move the branch pipe upward.	
4.	Push back the release lever on the filter plate holder and remove the filter plate holder by pulling forward.	

Step	Action	Illustration
5.	Press the ejector pin to push out the sealing ring.	
6.	Remove the jack latch and the screw from the filter plate.	
7.	Decalcify the metal parts of the filter plate.	
8.	Clean the rubber gasket, the sealing ring and the filter plate holder in hot water.	
9.	Mount the filter in reverse order: • Make sure that the lever locks and that the filter plate is guided by the scraper arms. • Make sure that the disc is positioned correctly. (The smooth side must face the gasket).	
10.	Bring the branch pipe and the filter plate holder back into position.	

Note   Avoid damage to the fine pored filter.

WITTENBORG
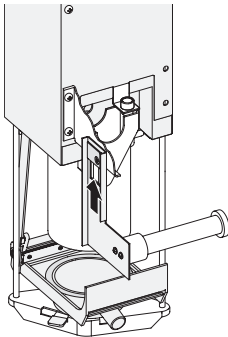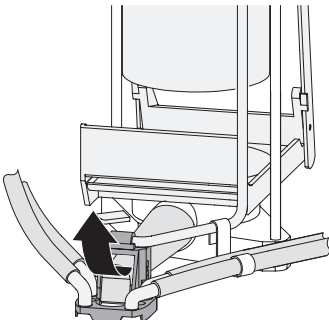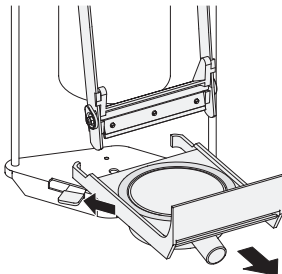
Replacing the filter plate
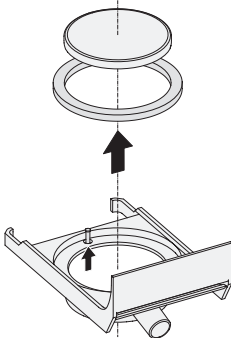
Introduction

Replace the clogged/blocked filter plate with a new or decalcified one. When changing the dispensing from the coffee to tea install a corresponding filter plate for tea.

Procedure

Follow this procedure to replace the filter plate:

Step	Action	Illustration
1.	Open the cabinet door and turn off the machine (main switch).	
2.	Remove filter roll holder (if installed).	
3.	Move the branch pipe upward.	
4.	Push back the release lever on the filter plate holder and remove the filter plate holder by pulling forward.	

Step	Action	Illustration
5.	Press the ejector pin to push out the sealing ring.	
6.	Replace the filter plate and re-insert the sealing ring.	
7.	Re-insert the filter plate holder until it latches. • Make sure that it fits between the scraper arms.	
8.	Bring the outlet spout and the filter roll holder back into position.	

WITTENBORG
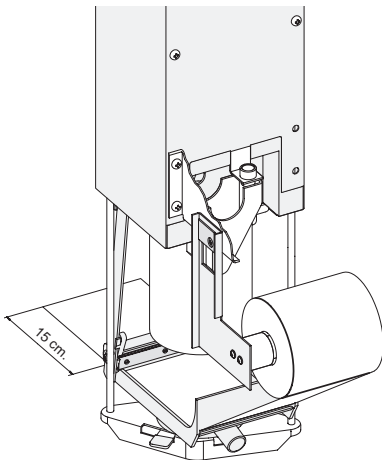
Replacing the filter paper roll

Introduction   Filter paper should be used for brewing tea, for coffee filter paper is optional.

Procedure   If filter roll is used, then follow the procedure below to replace the filter roll, when necessary.

Step	Action
1.	Open the machine.
2.	Ensure that power is turned off.
3.	Remove the filter roll holder by lifting it and then taking it out sideways to the front.
4.	Remove the old roll core and position the new filter roll so that it feeds through as directed.
5.	Insert the paper in the filter plate holder, pull it through until approximately 15 centimeters of the filter paper sticks out from the back edge.
6.	Reposition the filter roll holder.

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Cleaning the coffee grinder

Introduction

The grinder is normally self cleaning. It is sufficient to occasionally use a soft brush to remove build ups and residues from the canister.
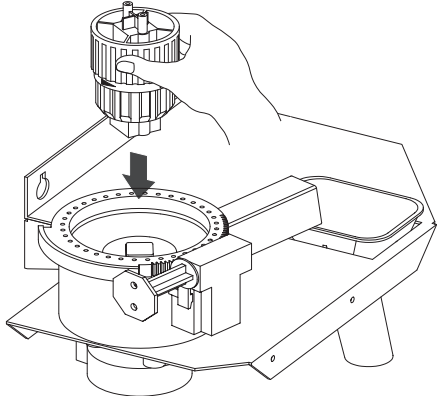
Tiny stones occasionally get mixed up with even the finest blends of coffee beans. To prevent them damaging the blades, the machine has an integral electronic stone detection function which cuts out the motor to prevent damage to the grinder.

Warning

Under no circumstances should you ever pour water into the coffee grinder as this would damage the grinding discs.

Procedure

Follow these steps to clear the blockage:

Step	Action	Illustration
1.	Turn off the machine (main switch).	
2.	Remove the coffee beans canister: • Press in the canister shutter to closed position to prevent coffee beans from falling out of the canister. • Remove canister by releasing it from the bracket at the rear of the canister and from the hook at the bottom of the canister.	
3.	Remove the remaining beans from the grinder.	
4.	Using the special multifunctional tool, grasp the square end of the grinding discs spindle and slowly turn the discs in a clockwise direction until the stone or foreign body is released and can be removed. NB. It is a good idea to use a vacuum cleaner for removing foreign bodies.	

WITTENBORG

Setting the coffee grinder (coarse/fine grind)

Introduction

The ES model is equipped with a coffee grinder which grinds the amount of coffee required immediately before the beverage is prepared and dispensed.

The grinder can be set in the range from coarse to fine grinding.

Note

Always adjust the setting of the grinder when the type of coffee is changed and to allow for general wear of the blades.

The blades of the grinder must always be sharp; blunt blades tend to crush the beans and produce excessive dust.

Grinder setting

Grinder setting	
Grinder setting 1	fine
Grinder setting 6	coarse

Default

The factory default setting is 3 or 4, i.e. medium fineness.

Adjusting the grinder

The procedure for adjusting the coffee grinder is as follows:

Step	Action
1.	Use the special multifunctional tool to adjust the fineness setting to the required position. NB. The pointer on the grinder shows the current setting.
2.	<table><tr><th>Adjust the grinder setting as follows</th><th>Turn the knob</th></tr><tr><td>Fine</td><td>clockwise</td></tr><tr><td>Coarse</td><td>anti-clockwise</td></tr></table>

Step	Action
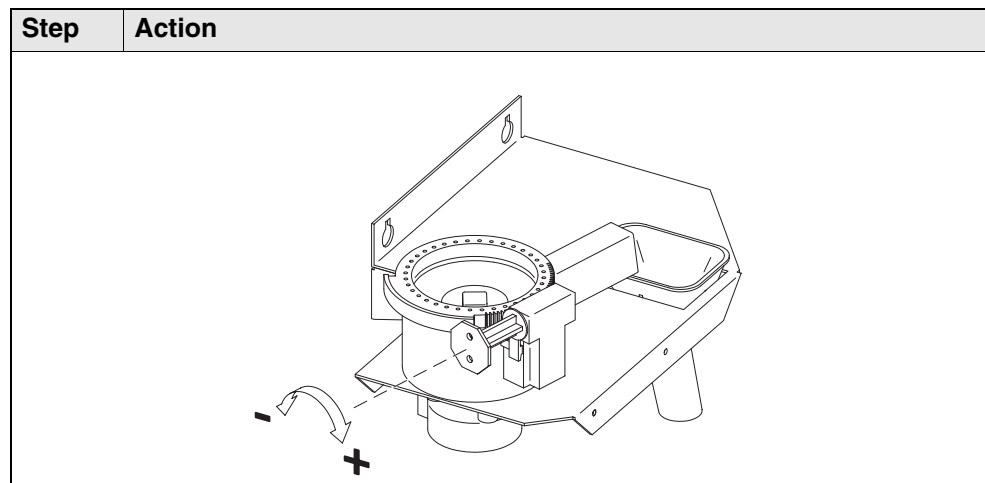
Important   The grinding fineness can only be adjusted when the grinder is running.
             This prevents beans being compressed against the knives, which may
             cause the grinder to become jammed.

Service mode - operator settings

Overview

- Service mode - operator settings
- Accessing service mode menus
- Operator setting menu system
- Total counter menu
- Basic operation
- Machine setting
- Service information

WITTENBORG

Service mode - operator settings

Introduction | When the machine is in Service Mode, the direct selection buttons on the selection panel are used for retrieving data and setting.

Description | There are five general Service Mode menus which can be accessed by all users.

Service Mode Menu	Description
Total Counter	to use for: • data retrieval regarding the total number of drinks dispensed • total amount of money collected • total number of discounts and for setting handling of cash flow.
Rinse	to assist in rinsing the machine.
Basic Operation	to use for data retrieval and price and quantity setting for the individual drinks.
Machine Setting	to use for additional settings.
Service Information	to use for data retrieval and settings regarding service.

Drink/Price Display | In the Service Mode the drink/price display on the selection panel shows the needed information.

WITTENBORG

Accessing Service Mode Menus

Description | The Service Mode menus are accessed by opening the door and pressing the direct selection buttons on the selection panel.

The Service Mode will automatically start in the Total Counter menu. This will be shown on the display.
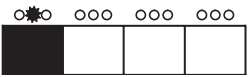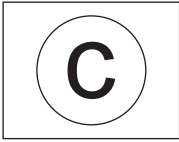
Selection buttons | The four direct selection buttons found at the top of the selection panel are used to access and activate the menus and their options.
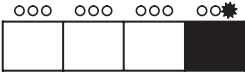
Display | The display shows which operation area the system is in and the value of the setting. To simplify operation, the lamps above the buttons which can be used, light up.

Button function | The buttons have the same function in all menus. The function of the selection buttons:

Button	Function
	The indicated button is used as a "down" button. This button is used to move from one menu option to another within a menu (eg to move from the Total Counter to the Total Amount option in the Total Counter menu).
C	The "clear" button is used as an "up" button. This button is used to move to the previous menu option eg to move from "Period 1 stop" to "Period 1 start". The "clear" button is also used to move from the first menu option to the last menu option (eg to move from "Rinse" to "Rinse brewer" or to move from "Machine setting" to "Happy hour disc.").
	The indicated button is used as an "arrow" button, stepping to the right. This button is used to move from one main menu to another and from a menu field to another menu field within a menu option and from a menu option back to a main menu (eg to move from the "Reset Counters" menu to the "Reset +/-" menu and from the "Reset +/-" menu back to the "Reset Counters" menu).
	The indicated button is used as a "minus" button and when pushed decreases the value. **Note:** Pressing the button once decreases the value of the setting one unit at a time. Keeping the button depressed increases the setting speed

Button	Function
○○○ ○○○ ○○○ ○○✹ [filled box below last group]	The indicated button is used as a "plus" button and when pushed increases the value.

Note: Pressing the button once increases the value of the setting one unit at a time. Keeping the button depressed increases the setting speed. |
| [coffee pot/multibrew icon] | The multibrew button can be pressed at any time to return to the start of the menu or to the Operating Mode. While in the Total Counter menu pressing the multibrew button results in returning to the Operating Mode. While in any menu except the Total Counter menu (eg Basic Operation), pressing the multibrew button twice results in returning to the Total Counter menu and pressing it three times results in returning to the Operating Mode. |

Illustration   Short guide of the navigation buttons:
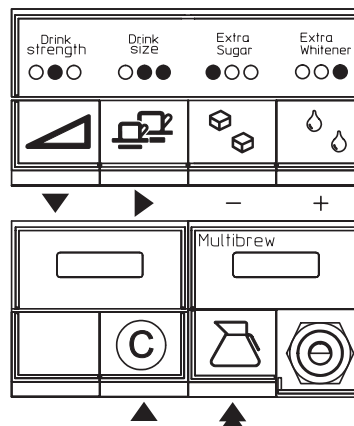
Operator settings menu system

The following shows the Operator Settings menu system.

Service info.
- Programversion
- Log/event book
  - Event/error
- Reset logbook
  - Reset +/-

Machine setting
- Freevend → Freevend set
- Beep → Beep set
- Multibrew → Default pots set
- Key disc. → Disc. percent
- Clock function → Clock on/off
- Clock → Clock set
- Active periods → Period 1 start / Period 1 stop ... Period 7 start / Period 7 stop
- Happy hour → Period 1 start / Period 1 stop ... Period 7 start / Period 7 stop
- Happy hour disc. → Disc. percent

Basic operat.
- Press selection-button for drink
- Number paid → Group no. paid
- Number free → Group no. free
- Amount
- Price info → Price set
- Quantities → Quantity set
- Group no → Group no. set

Rinse
- Rinse brewer/mix → Rinse start — ES,FB
- Rinse brewer → Rinse start
- Manual rinsed

Filling
- Canisters filled

Total counter
- Total amount
- Total disc. no.
- Total disc. amount
- Reset counters → Reset +/-
- Coin audit

EX,BDV,MDB
- Tot. coin vend no/amount — EX,BDV,MDB
- Money to tubes — EX,BDV,MDB
- Money to cashbox — EX,BDV,MDB
- Value overpay — EX,BDV,MDB
- Manual filling — BDV,MDB
- Collected money — EX,BDV,MDB
- No of slugs — MDB
- Disp. change — EX,BDV,MDB
- Man. del. money — EX,BDV,MDB

MDB
- Card audit
  - Tot. card vend no/amount — MDB
  - Revalued amount

BDV,MDB
- Coin action
  - Cash collected — BDV,MDB
  - Dispense coins — BDV,MDB
    - Coin, value
  - Manual filling — BDV,MDB

WITTENBORG

Total Counter Menu

Introduction	The Total Counter menu is used to retrieve data regarding the total number of drinks dispensed, total amount of money collected, total number of discounts, total amount of discount. It is also used to reset counters and to set handling of the cash flow.
Options	The Total Counter options are as follows, • Total Counter • Total Amount • Discount Number • Discount Amount • Reset Counters • Coin Audit • Card Audit • Coin Action
Accessing	Accessing the Total Counter Options • Open the cabinet door. • The machine will automatically be in the Total Counter menu (Total Counter option).

Total Counter

```
Nres tot:  xxx
Res tot :   xx
```

The display will show the total number of dispensed portions (non-resettable) and the total number of dispensed portions since last resetting (deleting) the counters.
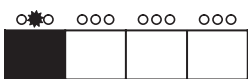
Refer to "Total counter"

Total Amount

```
Total amount :
         x,xx
```

The Total Amount option is used to read out the total amount of money collected from the sales of all dispensed portions.

Action	Function
Press: o✳o ooo ooo ooo ■	The display will show the total amount of money collected since last resetting (deleting) the counters.

The Total Amount option will not be shown, when the Price Mode in Service Setting is set to "Index".

Discount Number

```
HH no :      x
Key no:      xx
```

The Discount Number option is used to view the total number of happy hour sales within a period and the total number of sales with key discount.

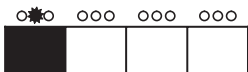| Action	Function
Press ○✸○ ○○○ ○○○ ○○○ ■□□□	The display will show the total number of dispensed drinks with discount - happy hour or key discount - since last resetting (deleting) the counters.

Disc. Amount

```
HH disc :     x
Key disc:     xx
```

The Discount Amount option is used to view the total amount of discount given from Happy Hour sales and the total amount of discount given from key discount sales.
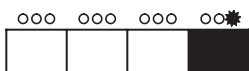
Action	Function
Press ○✸○ ○○○ ○○○ ○○○ ■□□□	The display will show the total amount of discount given and the total number of drinks dispensed since last resetting (deleting) the counters.

Discount Amount option will not be shown, when Price Mode in Service Setting is set to "Index".

Reset Counters

```
Reset counters
            ->
```
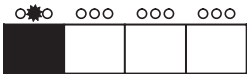
The Reset Counters option is used to reset all the counters.

Action	Function
Press ○✸○ ○○○ ○○○ ○○○ ■□□□	Accesses the Reset Counter.
Press ○○○ ○✸✸ ○○○ ○○○ □■□□ and then	Activates the Reset Counters
Press one of the indicated buttons ○○○ ○○○ ✸○○ ○○○ □□■□ ○○○ ○○○ ○○○ ○○✸ □□□■	Resets counters. The program will automatically return to the Reset Counter option.

Coin Audit

Coin audit
->

The Coin Audit option calls the data counters relating to coin flow.

Button	Function
Press:	Accesses the Coin Audit

Options: The Coin Audit options are as follows:
- Amount/No
- Money to Tubes
- Money to Cashbox
- Value Overpay
- Manual Filling
- Collected Money
- Number of Slugs
- Dispensed Change
- Manually Delivered Money

Amount/No

Amount xxxxxxxx
No   x

This option is used to view the total value of vends and the total number of vends made by coins as a means of payment

Action	Function
Press:	The amount of the total value and the number of vends for which coins were used in payment.

Money to Tubes

Money to tubes

The Money to Tubes option is used to view the amount routed to the coin tubes. The counter shows the exact value of the money in the tubes
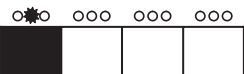
Action	Function
Press	The number of money routed to the coin tubes is displayed.

Money to Cash-box

Money to tubes

The Money to Cashbox option is used to view the amount routed to the cashbox

Action	Function
Press	The number of money routed to the cash box is displayed.

Value Overpay

Value over pay

The Value Overpay option is used to view the amount which because of a lack of coins in the coin unit (eg only correct amount light on and/or rounding down in connection with a time related discount) could not be returned, if "Credit->overpay" has been chosen in "Change Mode".

Action	Function
Press	The number of money which could not be returned is displayed.

Manual Filling

Manual filling

The Manual Filling option is used to view the amount inserted and recorded as manually inserted change with manual filling under "Card/Coin Action".

Action	Function
Press	The number of money inserted and registered as manually inserted change is displayed.

NB: This option is not available with Executive coin unit.

Collected Money

Collected money

The Collected Money option is used to view the amount removed from the cashbox without a reset in "Reset Counters".

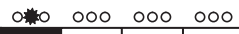| Action	Function
Press	The number of money removed from the cash box without a reset. is displayed.

The precondition is that when money is removed from the cashbox, the removal is recorded in Cash Collected.

Number of Slugs

No of slugs

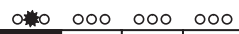The Number of Slugs option is used to view the number of false coins detected in the coin mechanism.

Action	Function
Press	The number of false detected coins is displayed.

NB: This option is only available with the MDB coin unit.
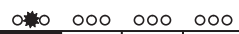
Dispensed Change

Dispensed Change

The Dispensed Change option is used to view the dispensed change amount paid out to customers.

Action	Function
Press	The amount of dispensed change to customers is displayed.

Manually Delivered Money

Man.del. money

The Manually Delivered Money option is used to view the amount paid out from the coin tubes with Dispense coins under Card/Coin action.

Action	Function
Press	The amount paid out from the coin tubes is displayed.
Press	Returns to the Coin Audit option.

NB: As to Executive coin unit: Coins are paid out from the coin tubes by pressing the coin dispense button on the coin unit.

Card Audit

Card audit
                    ->

The Card Audit option calls the data counter for cash flow by card.

Action	Function
Press	Accesses the Card Audit
○✳○ ○○○ ○○○ ○○○	

Options: The Card Audit function is as follows:
- Amount/No
- Revalued Amount

Amount/No

Amount xxxxxxxx
No   x

This option is used to view the total value of vends and the total number of vends made by card as a means of payment.

Action	Function
Press	The amount of the total value and the number of vends for which cards were used in payment.
○○○ ○✳✳ ○○○ ○○○	

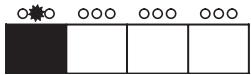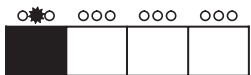NB: This option is only available with the MDB/ICP coin unit.

Revalued Amount

Revalued amount
No   x

This option is used to view the total amount which has been added to the credit amount on a card.
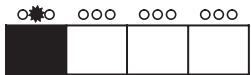
Action	Function
Press	The amount added to the credit amount on a card
○✳○ ○○○ ○○○ ○○○	
Press	Returns to the Card Audit option.
○○○ ○✳✳ ○○○ ○○○	

Coin Action

Coin action
                    ->

The Coin Action option is used to set the handling of the coins:

Action	Function
Press	Accesses the Card/Coin Action.
○✳○ ○○○ ○○○ ○○○	

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Options: The Coin options are as follows:
- Cash Collected
- Dispense Coins
- Manual Filling
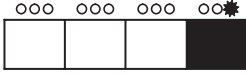
NB: This option is not available with Executive coin unit.

Cash Collected

Cash collected
Press: <+>

The Cash Collected option is used to electronically confirm the amount of money which is removed physically from the cash box. This amount is then recorded in the Collected Money counter:

Action	Function
Press	Access the Cash Collected option.
Press	The amount removed from the cash box is recorded and displayed in Collected Money

Dispense Coins

The Dispense Coins option is used to manually pay out a number of coins from the coin numbers/tubes (1-16) of the coin unit

```
Dispense coins
            ->
```

```
Coin:      Number:
x          0 go
```

Step	Action	Function
1.	Press	Accesses the Dispense coins option
2.	Press	Activates the Dispense Coins option
3.	From the above menu you have the following options:	

If you want to	then go to step
select a specific coin number (1-16)	4
increase the number of coins to be paid out	5
decrease the number of coins to be paid out	6
accept specified coin number, number of coins to be paid out and to return to Dispense coins option	7

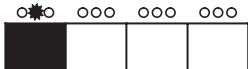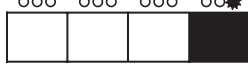| Step	Action	Function
4.	Press	Switches between the various coin numbers/tubes of the coin unit.
5.	Press	Increases the number of coins from the chosen coin number/tube of the coin unit.
6.	Press	Decreases the number of coins from the chosen coin number/tube of the coin unit.
7.	Press	The specified coin number, number of coins to be paid out are accepted. The program automatically returns to Dispense coins option.
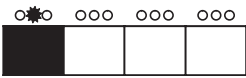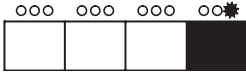
NB: This option is not available with Executive coin unit: In that case coins are paid out from the coin tubes by pressing the coin dispense button on the coin unit.

Manual Filling

Manual Filling
Press: <+>

The Manual Filling option is used to electronically confirm the amount of money which has been paid manually into the coin unit. This amount is then recorded in the Manual Filling counter under "Coin Audit" option:

Action	Function
Press: o✸o ooo ooo ooo [▮]	Accesses the Manual Filling option.
Press: ooo ooo ooo oo✸ [▮]	The amount filled into the coin unit is recorded and displayed in Manual Filling counter
Press: ooo o✸✸ ooo ooo [▮]	Returns to the Coin Action option.

The sum inserted from normal credit is converted from cash into change. The coins inserted are distributed to the appropriate tubes in the coin unit. If the tubes in question are filled the coins are routed into the cashbox.

WITTENBORG

Filling

Canisters filled ┌─────────────┐ │ Filling │ <down> └─────────────┘	Reference to the section "Canisters filled"
Note	This field may not be shown, it's dependent on machine settings.

Rinse

Rinse brewer/mix ┌─────────────┐ │ Rinse │ brewer/mixer ➔ └─────────────┘	Reference to the section "Rinsing - Brewer/mixer rinsing" Reference to the section "Rinsing - Brewer rinsing with rinsing stop"
Rinse brewer ┌─────────────┐ │ Rinse │ brewer └─────────────┘	Reference to the section "Rinse brewer"
Manual rinse ┌─────────────┐ │ Manual rinsed │ press <+> └─────────────┘	Reference to the section "Manual rinsed"

WITTENBORG

Basic operation

Description	The Basic Operation options make it possible to retrieve data and set prices and quantities of all drink options available.
Options	The Basic Operation options are as follows: • Number of Paid Drinks • Number of Free-Vend Drinks • Amount • Price • Quantities • Group number

Accessing and operating

Action	Function
Open the cabinet door.	The machine will automatically start in the Total Counter menu.
Press twice ○○○ ○✹✹ ○○○ ○○○	
Select the drink for which setting is needed by pressing the corresponding direct selection button on the selection panel (eg press the "coffee" button for setting coffee, press the "coffee with sugar" for setting coffee with sugar, etc.).	The number of portions dispensed for the selected drink since last resetting (deleting) the counters is displayed.

> Basic Operation
> Press sel.button

> Chocolate
> No. paid: x

While in any option it is possible by pressing another direct selection button to recall information for or make changes to the corresponding drink (eg while in the Number Paid option for coffee, pressing the coffee with sugar direct selection button will access the Number Paid information for coffee with sugar.)

Number Paid	This option serves as a counter and is used to view the number of paid drinks dispensed for the selected drink and for the preset groups of drinks.

Number Paid for Group

Chocolate
Group x: x

Action	Function
Press: ooo o✸ ooo ooo [▪]	The number of portions dispensed for the preset group of drinks since last resetting (deleting) the counters is displayed.

The group displayed corresponds with the group in which the selected drink has been preset. To access additional groups, press the corresponding direct selection buttons.
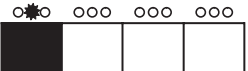
Chocolate
No. paid: x

Action	Function
Press: ooo o✸ ooo ooo [▪]	Returns to the Number Paid option.

Number Free

Chocolate
No. free: x

This option serves as a counter and is used to view the number of free drinks dispensed for the selected drink and for the preset groups of drinks.

Action	Function
Press: o✸o ooo ooo ooo [▪]	The number of portions dispensed for the selected drink since last resetting (deleting) the counters is displayed.

Number Free for Group

| Chocolate |
| Group x: x |

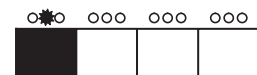| Action	Function
Press: ooo o✴ ooo ooo	The number of portions dispensed for the preset group of drinks since last resetting (deleting) the counters is displayed.

The group displayed corresponds with the group in which the selected drink has been preset. To access additional groups, press the corresponding direct selection buttons.

| Chocolate |
| No. free: x |

Action	Function
Press: ooo o✴ ooo ooo	Returns to the Number Free option.

Amount

| Chocolate |
| Amount: x,xx |

This option serves as a counter and is used to view the total sales value of the selected drink.

Action	Function
Press: o✴o ooo ooo ooo	The total amount of money collected since last resetting (deleting) the counter is displayed.

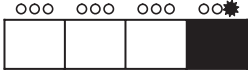This function will not be displayed when Price Mode in Service Setting is set to "Index".

Price Information

| Chocolate |
| Price :   x,xx |

This option is used to set drink prices for the selected drink.

Action	Function
Press: o✴o ooo ooo ooo	The drink price (or price index) is displayed.

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Set or change price
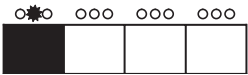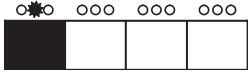
Chocolate
Set Pr: x,xx

Action	Function
Press:	The display will read set price #.##
Press:	Decreases the price.
Press:	Increases the price.
Press:	Returns to the Price Set option.

Quantity

Chocolate
Set quantities ->

This option is used to set water and ingredient quantities of a selected drink.

Action	Function
Press:	Displays the name of the drink and "Set quantities ->".
Press:	Displays a drink component.
Press:	Displays the component (eg water, ingredient, mixing time)

Set or change the quantity

Action	Function
Press: ○○○ ○○○ ✸○○ ○○○ ▢ ▢ ■ ▢	Decreases the quantity.
Press: ○○○ ○○○ ○○○ ○○✸ ▢ ▢ ▢ ■	Increases the quantity.
Press: ○○○ ○✸✸ ○○○ ○○○ ▢ ■ ▢ ▢	Returns to "Quantities".

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Group Number

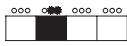| Chocolate Group :	x

This option is used to set a group consisting of a selected number of drinks for which information is needed regarding the number of paid and free-vend drinks.

Action	Function
Press:	The display reads eg "Group: 1".
Press the direct selection button corresponding to the drink to be included in a group.	To set or change the group.
Press:	The display reads "Set Group".
Press:	Sets the group number (decreasing numerically).
Press:	Sets the group number (increases numerically).
Press:	Returns to Group Number option.
Inhibiting drink	Set group = 0
Undosed hot water	Set group = 22
Undosed cold water	Set group = 23

WITTENBORG

Machine setting

Introduction	The Machine Setting options allow for setting the machine according to individual preferences.

Machine Setting Options	The Machine Setting options are as follows: • Free-Vend • Beep • Multibrew • Key Discount • Clock function • Clock • Active Period • Happy Hour • Happy Hour Discount

Accessing and operating

Accessing and operating the Machine Setting options

1. Open the cabinet door (the machine will automatically start in the Total Counter menu).

2. Press the ⬚■⬚⬚ button three times.
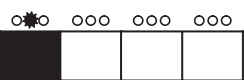
The display will read "Machine Setting".

Free-Vend	This option is used to set the machine to the free-vend mode.
	The display will read "Free-Vend Status Off" or "Free-Vend Status On".

Set or change the
Free-Vend sta-
tus

This option is used to set the free-vend status on the machine.

Free vend
Status :   OFF

Action	Function
Press:	Accesses the Free Vend option. Shows the status.
Press:	Activates the Free-Vend option.
Press:	Sets the Free-Vend to "off".
Press:	Sets the Free-Vend to "on".
Press:	Returns to Free-Vend option.

Beep

This option is used to set the status of the acoustic signal to ON or OFF.
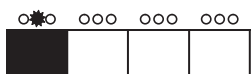
Set or change the Beep status

Beep
Status :   ON
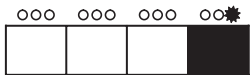
Action	Function
Press: ○☀○ ○○○ ○○○ ○○○ ■□□□	Accesses the beep option.
Press: ○○○ ○☀☀ ○○○ ○○○ □■□□	Activates Beep option.
Press: ○○○ ○○○ ☀○○ ○○○ □□■□	Sets the Beep status to "off".
Press: ○○○ ○○○ ○○○ ○○☀ □□□■	Sets the Beep status to "on".
Press: ○○○ ○☀☀ ○○○ ○○○ □■□□	Returns to the Beep option.

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Multibrew

The Multibrew option is used to set a preset number of portions to be dispensed when the multibrew function is activated (eg a setting of 5 results in an automatic dispensing of 5 portions when the multibrew function is activated provided that this number is not changed by the user prior to activating.)

Set or change the preset number of portions to be dispensed

Multibrew
Preset pot: x

Action	Function
Press: o✹o ooo ooo ooo [█][ ][ ][ ]	Accesses the Multibrew option.
Press: ooo o✹✹ ooo ooo [ ][█][ ][ ]	Activates the Preset Portion setting. The display reads "Set Portions".
Press: ooo ooo ✹oo ooo [ ][ ][█][ ]	Decreases the number of portions.
Press: ooo ooo ooo oo✹ [ ][ ][ ][█]	Increases the number of portions.
Press: ooo o✹✹ ooo ooo [ ][█][ ][ ]	Returns to Multibrew option.

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Credit lacking

If credit for paid multibrew is insufficient, the vending machine will wait 10 seconds for further credit. When the vending machine has received sufficient credit to continue, the multibrew sequence will continue. If the vending machine does not receive sufficient credit within this timeout period of 10 seconds, the multibrew function is reset.
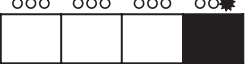
Key Discount

This option is also used to set a percentage discount for the use of the key discount function (eg a setting of 20 results in a discount of 20% when the key discount is activated.). A setting of 100% means free vend.

When using "index" the value will be added to the "normal" price index.

Set or change the key discount

Key discount
xxx percent

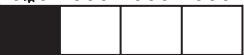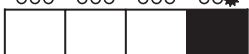| Action	Function
Press:	Accesses the Key Discount option.
Press:	Activates Discount setting. The display reads "Discount Percent".
Press:	Decreases the discount.
Press:	Increases the discount.
Press:	Returns to Key Discount option.

Clock Status

This option i used to set the clock status to on or off.

The following clock functions can only be operated when the clock status is set to on: clock, active period, happy hour, happy hour disc.

Activate/deacti-vate the clock function

Clock
Status :   ON

Set clock mode:
        xx

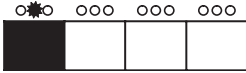| Action	Function
Press:	Accesses the clock status option.
Press:	Activates the "clock status" function. The display shows "set clock mode: (on, off)".
Press:	The "clock status" function changes to OFF.The display shows "set clock mode: off".
Press:	Changes the "clock status" function to ON.The display shows "set clock mode: on".
Press:	Returns to clock status option.
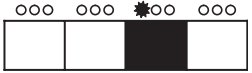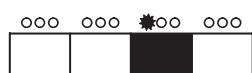
Clock
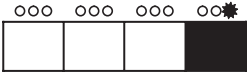
This option is used to set the date and time.

The display will show the date and time of day (year, month, date, day of week, hour and minute. To set this option, the clock status must be "on".

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Set or change the date and time

Clock : YY.MM.DD
　　　 WW.HH.MM

Step	Action	Function
1.	Press:	Accesses the Clock option.
2.	Press:	Activates Date setting. (eg display = 95.01.11)
3.	Press:	Decreases the year.
4.	Press:	Increases the year.
5.	Press:	Sets the month, the display will blink ## once, and then the month (eg 01)
6.	Press:	Decreases the month.
7.	Press:	Increases the month.
8.	Press:	Sets the day, the display will blink ## once, and then the day (eg 11).
9.	Press:	Decreases the day.

Step	Action	Function
10.	Press:	Increases the day.
11.	Press:	Accesses time setting.
12.	Repeat steps 3 through 11.	Sets the day of the week and time accordingly. **Note**: It is not necessary to set the day of the week. This is done automatically according to the date.
13.	Press:	Returns to clock option.
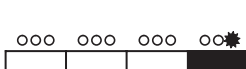
Active Period
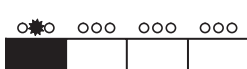
This option is used to set periods of time when the machine is to be used (eg during working hours). To set or change the periods, the clock function must be "on". There are seven possible periods.

The previously set active periods are displayed.

Set or change the active periods

```
Active period
Set periods    ->
```

Step	Action	Function
1.	Press:	Accesses the Active Period option.
2.	Press:	Starts setting of the first period. (Display = Period 1 start.)
3.	Press:	Moves backward among the days.
4.	Press:	Moves forward among the days. **Note**: to set the Active Period for the same time every day, the display should read == for the day.
5.	Press:	Sets the time, starting with the hour. The display will blink ## once and then show the hour.
6.	Press:	Decreases the hour.
7.	Press:	Increases the hour.

Step	Action	Function
8.	Press:	Sets the minutes. The display will blink ## once and then show the minutes.
9.	Press:.	Decreases the minutes.
10.	Press:	Increases the minutes.
11.	Press	Sets the stop day and time of the first period. (Display = Period 1 stop)
12.	Repeat steps 3 through 11.	
13.	Press:	Starts setting of the next period.
14.	Press:	Returns to the Active Period option.

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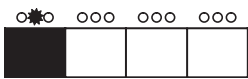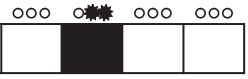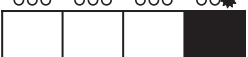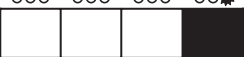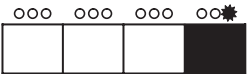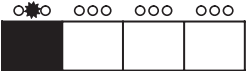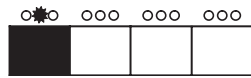
Happy Hour

This option is used to set periods during which drinks are to be sold in the free vend mode. To set or change the periods, the clock function must be "on". There are 7 possible periods.

During the Happy Hour a certain rolling text is shown on the display. The rolling text can only be read in via the serial communication in VIDTS format.

Set or change the happy hour periods

```
Happy hour
Set periods  ->
```

Step	Action	Function
1.	Press: ○✳○ ○○○ ○○○ ○○○	Accesses the Happy Hour option.
2.	Press: ○○○ ○✳✳ ○○○ ○○○	Starts setting of one of the first period. (Display = Period 1 start.)
3.	Press: ○○○ ○○○ ✳○○ ○○○	Moves backward among the days.
4.	Press: ○○○ ○○○ ○○○ ○○✳	Moves forward among the days. **Note**: to set the Happy Hour period for the same time every day, the display should read == for the day.
5.	Press: ○○○ ○✳✳ ○○○ ○○○	Sets the time, starting with the hour. The display will blink ## once and then show the hour.
6.	Press: ○○○ ○○○ ✳○○ ○○○	Decreases the hour.
7.	Press: ○○○ ○○○ ○○○ ○○✳	Increases the hour.

Step	Action	Function
8.	Press:	Sets the minutes. The display will blink ## once and then show the minutes.
9.	Press:	Decreases the minutes.
10.	Press:	Increases the minutes.
11.	Press:	Sets the stop day and time of the first period. (Display = Period 1 stop)
12.	Repeat steps 3 through 11.	
13.	Press:	Starts setting of the next period.
14.	Repeat steps 2 through 10 until all periods are set.	
15.	Press:	Returns to happy hour option.

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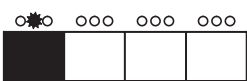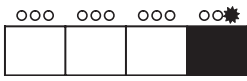
Happy hour Discount

This option is used to set a percentage discount for selections made during a Happy Hour period (eg a setting of 20 results in a discount of 20% on the selection made during a Happy Hour period.). A setting of 100% means free vend during the period. To set or change this option the clock function must be "on".

When using "index" the value will be added to the "normal" price index.

Set or change the happy hour discount

```
Happy hour disc.
   xx percent
```

Action	Function
Press:	Accesses the Happy Hour Discount option.
Press:	Activates Happy Hour Discount option.
Press:	Decrease the discount.
Press:	Increase the discount.
Press:	Return to Happy Hour Discount option.

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Service information

Introduction	The Service Information options provide information regarding the service of the machine.
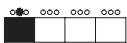
Service Information Options	The Service Information options are as follows: • Program Version • Log / Event book • Reset Logbook

Accessing	Accessing Service Information options

Action	Function
Open the cabinet door.	The machine will automatically be in the Total Counter menu).
Press four times:	The display will read "Service Info".
Press	Accesses the information found in the Service Information.

Program Version	This option provides information regarding the particular version of the machine in use.

Access Program Version	Press the ⬛⬜⬜⬜ button to show the program version for VMC and SPC.
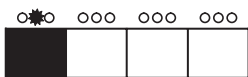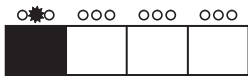
VMC V.XXXXXXXX
SPC V.XXXXXXXX

Log / Event Book	This option is used to retrieve data regarding information about the machine: • error/event • frequency • first/last occurrence.

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Retrieve data

Log book
->

Step	Action	Function
1.	Press:	Accesses Log / Event Book option.
2.	Press:	Retrieves event/error.
3.	Press:	Retrieves the next event/error.
4.	Repeat step 3 until all data has been retrieved.	
5.	Press:	Return to the Log / Event book option.

Reset log book

Reset log book
->

Action	Function
Press:	Accesses "reset log-book" option.
Press:	Activates "reset log-book" option.
Press:	Returns to "reset log book" option.

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Trouble shooting

Overview	List of items to check and corrective actions to carry out.

Introduction

These messages are displayed until the malfunction is cleared. If there is more than one malfunction they are displayed in turns. If the malfunction occurs again after it has been cleared according to the instruction given in "corrective action" please inform your dealer or one of the Wittenborg branches.

If the machine does not work and there is no message in the info display check the power supply and whether the main switch is set to ON.

List

This is a list of items to check and corrective actions to carry out, if the machine should set out and all operations stop.

Text in the info display	Possible cause	Corrective action
Water l. low	• The water tank is not filled within 3 min.	• Switch the machine off, open the water cock, check water connection and hose.
Temp. low	• Water temperature is too low. • Heater defective. • Machine was just switched on.	• Wait until the water is heated sufficiently (approx. 15 min.) • Call service. • The display is automatically cleared when the water in the tank reaches the right temperature.
Heater error	• Over boil thermostat activated.	• Call service.
Energy save	• Energy save period on.	• Change energy save period. • Check the clock, make sure that the time is correct.
Bucket full	• Drip tray full. • Waste bucket full.	• Switch machine off, empty the drip tray, dry the water level sensor. • Switch the machine off, empty the waste bucket.
Brewer error	• Brewer blokage • Defect brewer	• Empty waste bucket • Reset machine • Call service
FB Assembly	• Filter plate or cylinder mounted incorrectly • Defect brewer	• Switch machine off. • Mount filter plate and brewing cylinder correctly
Filter plate!	• Filter plate blocked up • Brewer motor defect	• Decalcify filter • Reset machine

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Text in the info display	Possible cause	Corrective action
Valve leak!	• Leaky valve	• Reset machine • Call service
Unknown err.	• Unknown error	• Reset machine • Call service
Internal err	• Internal error	• Reset machine • Call service
Select new drink Error,remove cup	• This error may be shown after the presence of the error, "Filterplate!"	• Reset machine
GrinderError	• The grinder is blocked by a stone or foreign body • Grinder setting is too fine • Grinder motor damaged	• Clean grinder • Set grinder to a coarser grind • Call service
High.Temp.!	• The temperature of the water is too high • Water filter blocked	• Call service
No flow!	• Grinder setting is too fine • Water pump damaged	• Set grinder to a coarser grind • Call service
Sold out	• Machine is too dirty • • Canisters are empty or nearly empty	• Clean machine • Record that the brewer has been cleaned manually • Refill canisters • Record that the canisters have been filled up • Call service
Rinse now!	• Machine is too dirty	• Clean machine • Record that the brewer has been cleaned manually • Call service

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Installation manual
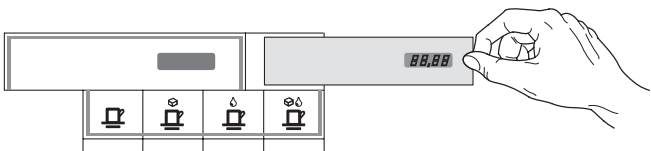
Overview	• Installation of the vending machine
	• Connections

Installation of the vending machine

Only trained service technicians should carry through the installation of the vending machine!

Mounting

Step	Action
1.	Unpack the vending machine and check it for damage.
2.	Set the machine up. Adjust the horizontal and vertical position by means of the base setting screws.
3.	Open the door.
4.	Remove the instant canisters and the dosing system.
5.	Remove the mounting kits.
6.	Unpack the instant ingredient canisters.
7.	Fill the FB canister or the ES coffee bean canister.
8.	Fill the instant ingredient canisters.
9.	Unpack the waste bucket and place in position.
10.	• Remove the colour panel: Open door, loosen upper and lower screws, and lift off colour panel. • Slide the "button panel" with the price label to the side. • Remove the price label from the "button panel". Enter the prices according to the requirement of the customer on the label by blackening the bars that are not needed. • Reinsert the price label into the guides of the "button panel" (do not lose the transparent cover for the price label). • Slide the "button panel" with the price label into the appropriate guides in the selection panel. • Lift on the colour panel again and retighten screws.

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Connections

Power supply	230V a.c. (UK: 240V a.c.) +10%/-15%, 50 Hz, 2300 W with a 2000 W heating element / 3000 W with a 2700 W heating element. Approx. 3.5 m, 3x1.5 mm² cable. Brown = phase, blue = neutral, green/yellow = protective earth (I.E.C. Standards).

Electrical installation

Connect machine to power source in accordance to the relevant electrical standards of the country in which the machine is to be installed.

The socket must be equipped with an earthed conductor that is in accordance with the local regulations. The dispenser housing will be carrying voltage if no earthed conductor is connected! (mains filter). The power supply voltage must be 230 V (UK: 240 V).

• Plug in the power supply plug. • Turn the machine on at the main switch.	
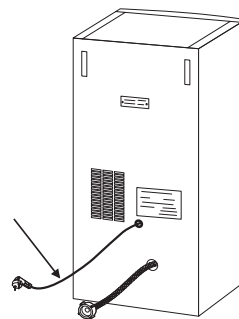
Positioning

Position the vending machine. Adjust the horizontal and vertical position.

In order to ensure correct ventilation, a distance of 40 mm is required from the rear side of the machine to the wall.

Ambient temperature: 5°C to 32°C

Dimensional drawing	This drawing shows the requisite clearances:
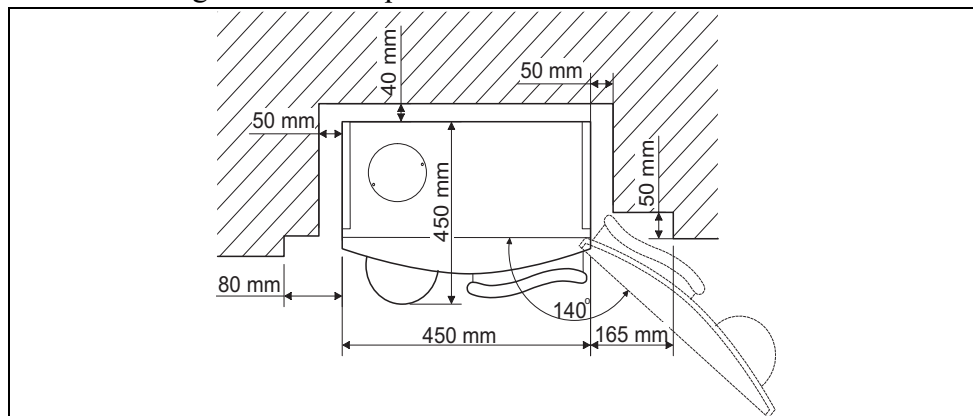
Overflow water	The vending machine requires no connection to outlet or drain (automatically controlled drip tray installed).

Water supply	The vending machine must be connected to a drinking water supply.
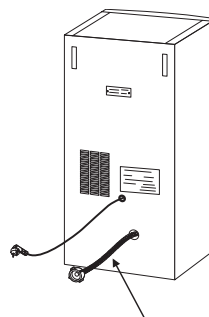
Minimum dynamic pressure must be 0.8 bar . Maximum static pressure must not exceed 10 bar. At a higher pressure (also periodically) a reduction valve must be mounted in the water pipe.

Only UK: The vending machine is fitted with flexible pipe terminating in 1/4 BSP female fitting. By means of the adapter supplied connection should be made to 15 mm copper pipe controlled by a stop cock which must be easily accessible.

Other countries: The vending machine is fitted with a connecting hose terminating in 3/4" - 3/8" reducing nipple. Connection should be made to an inlet terminating in a 3/8" P.Thr.id.

For safety reasons install a water stop valve.

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Data of the water tank (FB/IN)

The data of the FB/IN water tank is listed in the table below:

Description	Data
Capacity	3.5 l
Heating capacity: standard	2700W/230V (Europe)
Heating capacity: optional (for max. 10 A load)	2000W/230V
Valves	24VDC - NW 8
Inlet valves	24VDC
Boil over sensor: Triggering temperature:	80° C ± 5° C
Water tank temperature sensor: Default setting:	96° C ± 1.5° C

Setting to work

Follow the steps below to set the machine to work:

Step	Action	
1.	Ensure that the water cock has been opened and that the machine has been turned on at the main switch.	
2.	Check all safety elements:	• Open the door - no brewer dispensing possible • Close the door - brewer dispensing possible • Check the water level sensor in the drip tray
3.	Make sure that there are no leaks. Open the door and check the machine for moisture.	
4.	Check the manufacturer's settings. Program the machine as required by the customer.	
5.	Adjust cup platform to ensure that the cup sensor can detect the placement of a cup. ES only: Depending on the cup size, the oblique ES coffee outlet as well as the height of the cup platform have to be adjusted to ensure the correct dispensing into the cup.	
6.	If necessary adjust the machine type (adjustment of the general machine configuration).	
7.	Set date and time.	
8.	Check dispensing of all products and hot water dispensing by carrying out tests.	

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Technical data

Overview

- Technical data

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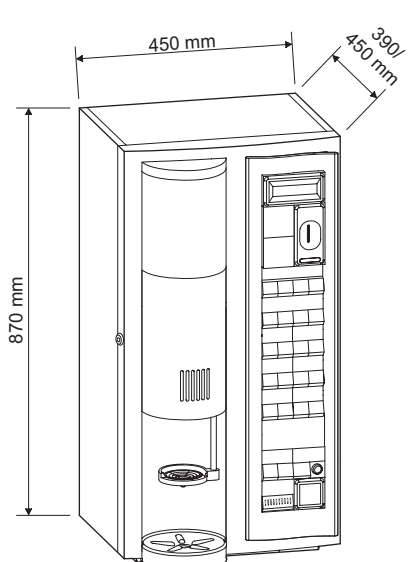
Technical data

Introduction
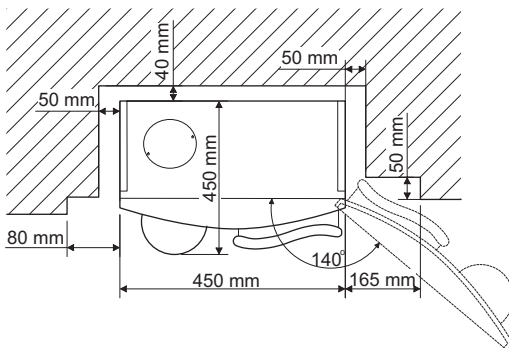
In this section you will find technical data about the machine. The information is structured as follows:
- dimensions
- weight
- drinking water
- electrical connection
- installation conditions
- ambient conditions
- storing temperature
- ambient temperature
- relative humidity
- water tank capacity
- drip tray capacity
- waste bucket capacity

Dimensions

Height	870 mm
Width	450 mm
Depths	390/450 mm

Wall distance	40 mm	

Weight

Basic machine version (without ingredients):
- FB: 62 kg
- IN: 64 kg
- ES: 68 kg

Drinking water

Connection by a special hose (length: 1m)
3/4" connecting piece (an adaptor is available)
0.8 bar min. water pressure (dynamic)
10 bar max. water pressure (static)

Illustration

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Electrical connection	230V AC +10%/-15%, 50Hz
	Power consumption - FB/IN: Small heating element, without cold unit: Max. 2300 W Small heating element, with cold unit: Max. 2600 W Large heating element, without cold unit: Max. 3000 W Large heating element, with cold unit: Max. 3300 W
	Power consumption - ES: Standard heating element, without cold unit: Max. 2300 W
Installation conditions	Up to 2000 m above MSL (mean sea level), when installing the vending machine at higher altitudes it must be changed over by a service technician.
Ambient conditions	The vending machine is designed for indoor use only (IP 20).
Storing temperature	1°C to 60°C
Ambient temperature	5°C to 32°C
Relative humidity	max. 80% at 32°C

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FB

Ingredient	Quantity	Weight	Portions
FB coffee	approx. 4.4 l	approx. 1.6 kg	approx. 140-240
Sugar	approx. 3.0 l	approx. 2.7 kg	approx. 450
Whitener	approx. 3.0 l	approx. 1.6 kg	approx. 350
Chocolate	approx. 3.0 l	approx. 1.6 kg	approx. 80
Instant coffee	approx. 3.0 l	approx. 0.5 kg	approx. 275

IN

Ingredient	Quantity	Weight	Portions
IN coffee	approx. 3.0 l	approx. 0.5 kg	approx. 275
Sugar	approx. 3.0 l	approx. 2.7 kg	approx. 450
Whitener	approx. 3.0 l	approx. 1.6 kg	approx. 350
Chocolate	approx. 3.0 l approx. 6.0 l	approx. 1.6 kg approx. 3.2 kg	approx. 80 approx. 160

ES

Ingredient	Quantity	Weight	Portions
ES coffee beans	approx. 4.4 l	approx. 1.5 kg	approx. 200
Sugar	approx. 3.0 l	approx. 2.7 kg	approx. 450
Whitener	approx. 3.0 l	approx. 1.6 kg	approx. 350
Chocolate	approx. 3.0 l	approx. 1.6 kg	approx. 80
Instant coffee	approx. 3.0 l	approx. 0.5 kg	approx. 275

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Water tank capacities	FB/IN water tank: Approx. 3.5 l
	ES water tank: Approx. 0.8 l
Waste capacities	FB/IN/ES drip tray: Approx. 1 l
	FB/IN waste bucket: Approx. 6.5 l
	ES waste bucket: Approx. 100 portions

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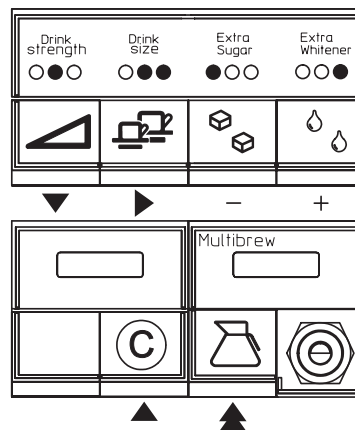**WITTENBORG**

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Appendix

Overview

- Menu system
  - navigation buttons
  - menu system - operator settings

WITTENBORG

Menu system

Navigation buttons Short guide of the navigation buttons:

Menu system - operator settings

Total counter

Total amount

Total disc. no.

Total disc. amount

Reset counters — Reset +/-

EX,BDV,MDB

Coin audit
- Tot. coin vend no/amount — EX,BDV,MDB
- Money to tubes — EX,BDV,MDB
- Money to cashbox — EX,BDV,MDB
- Value overpay — EX,BDV,MDB
- Manual filling — BDV,MDB
- Collected money — EX,BDV,MDB
- No of slugs — MDB
- Disp. change — EX,BDV,MDB
- Man. del. money — EX,BDV,MDB

MDB

Card audit
- Tot. card vend no/amount — MDB
- Revalued amount

BDV,MDB

Coin action
- Cash collected — BDV,MDB
- Dispense coins — BDV,MDB
  - Coin, value
- Manual filling — BDV,MDB

Filling
- Canisters filled

Rinse
- Rinse brewer/mix
  - Rinse start
- Rinse brewer — ES,FB
  - Rinse start
- Manual rinsed

Basic operat.
- Press selection-button for drink
- Number paid
  - Group no. paid
- Number free
  - Group no. free
- Amount
- Price info.
  - Price set
- Quantities
  - Quantity set
- Group no
  - Group no. set

Machine setting
- Freevend
  - Freevend set
- Beep
  - Beep set
- Multibrew
  - Default pots set
- Key disc.
  - Disc. percent
- Clock function
  - Clock on/off
- Clock
  - Clock set
- Active periods
  - Period 1 start
    - Period 1 stop
  - Period 7 start
    - Period 7 stop
- Happy hour
  - Period 1 start
    - Period 1 stop
  - Period 7 start
    - Period 7 stop
- Happy hour disc.
  - Disc. percent

Service info.

Programversion

Log/event book
- Event/error

Reset logbook
- Reset +/-