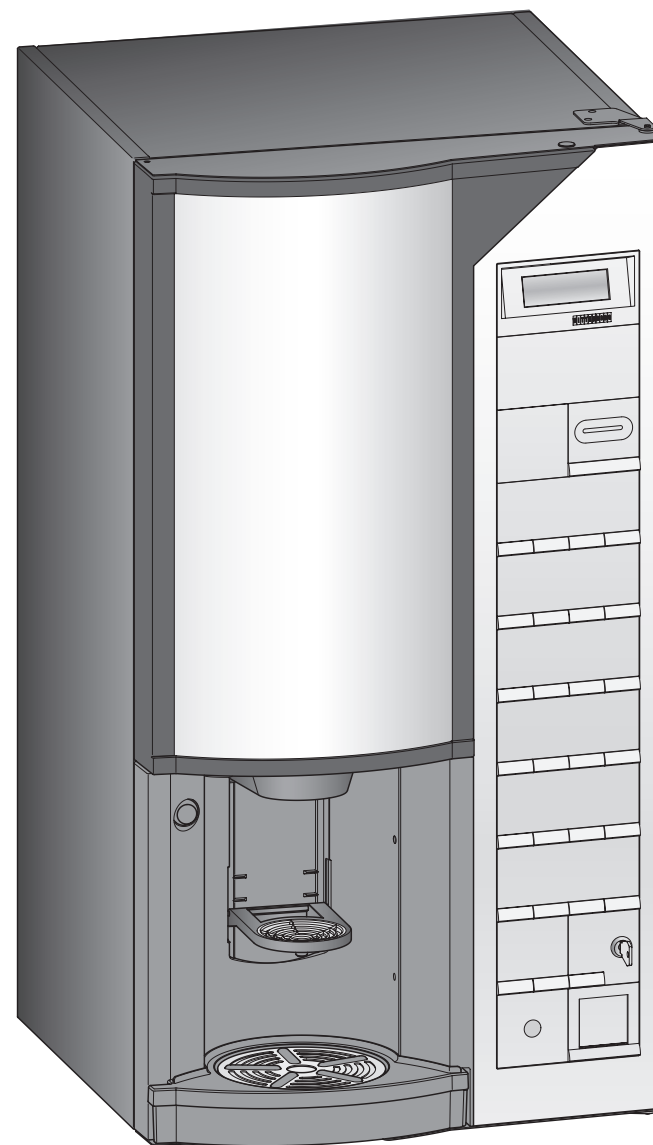


WITTENBORG

OPERATOR MANUAL

FB 7100



75521300 Draft vers. 3

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INTRODUCTION

The machine dispenses

- hot freshbrew drinks
- hot instant drinks
- hot water.

or

- hot freshbrew drinks
- hot/cold instant drinks
- hot water.

Use only freshly 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.

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

SAFETY

- Before putting the vending machine into operation, the operator manual must be carefully read and fully understood.
 - The vending machine may not be subject to frost during operation, storage and transport.
 - If there is the risk of frost in the area of the installation site of the machine, voltage to the machine may not be disconnected.
 - If there is the danger of damage due to frost, the service technician must check and replace boiler, hoses and valves if required prior to reconnecting the vending machine and he should additionally carry out a functional test.
 - The vending machine should only be installed and repaired by qualified personnel, who are trained in the correct use of the machine according to the standards in force and who have the specific knowledge of the machine functioning from a point of view of electrical safety and health regulations.
 - Safety devices must not be bridged or put out of function.
 - The vending machine must be connected to the drinking water line and to the electric line in compliance with local regulations.
 - The vending machine has to be placed in a horizontal position.
 - The vending machine must be connected to a secured electric circuit. We recommend to install a fault current safety switch. The connections must be made using an earthed safety plug socket complying with valid regulations.
 - After the machine has been installed, the power supply plug must be accessible.
-  Never touch the power supply plug with wet hands or plug it in if the plug itself is wet.
-  The liquids dispensed by the vending machine are very hot! To prevent scalding, hands (and/or other parts of the body) must be kept away from the outlets while drinks are being prepared and dispensed.
- If the power supply cable of the vending machine is damaged it may only be replaced by a service technician.

- Do not attempt to fill several cups by pressing the pot button. There is danger of injuries.
- Only authorised and qualified personnel may clean, fill up and set the vending machine.
- The vending machine may not be cleaned under a water jet and is not suitable for installation on surfaces next to which water jets are being used (e.g. for cleaning).
- Use only original spare parts.
- Observe the local regulations!
- Regular cleaning of the dispenser is necessary for functional and hygienic reasons.



When cleaning, take care of sharp edges. There is danger of injuries!

- To clean the cabinet only use cleaning agents approved by the food industry.
- Clean the inside and outside of the vending machine by using a damp cloth and do not splash it.
- After cleaning, make sure that all components are correctly reinstalled.
- The technical data of the vending machine are given on the rating plate.



When the yellow special key is inserted in the slot of the door key, 230 V is re-established to the machine.

The door can be closed only after removing the key from the door switch.

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

Door switch:

When the door is opened, a special switch ensures that there is no access to energized or moving parts.

Any operation requiring the machine to be energized with the door opened must be carried out **exclusively** by qualified personnel informed about the specific risks of such situation.

The machine may be energized by qualified personnel by inserting a special yellow key into the door switch.

Before starting any maintenance or repair of energized or movable parts, the machine must always be switched off.

Technical data


TECHNICAL DATA


The technical data of the vending machine are given on the rating plate.

The vending machine is suitable for indoor use only.

Dimensions vending machine	Height:	min. 850 mm (without levelling feet), max. 875 mm (with levelling feet)
	Width:	450 mm
	Depth:	378 mm (cabinet), 475 mm (cabinet+door)

Weight	Approx. 70 (without ingredients)
---------------	----------------------------------

Electric connection	Power supply:	230V, 50 HZ Phases: Single phase+neutral+ground (IEC-standard) Brown = phase Blue = neutral Yellow/green = ground
		 The vending machine must be earthed! In addition, it is recommended to install a fault current safety switch.
	Power consumption:	2000 - 2450W Connecting cable: Approx. 1.8-3.5 m (varies, depending on local requirements).
	Fuse:	Neutral: 10A Phase: 10 A

Water connection	Connect the vending machine to a cold water supply (potable water).	
	Min. back pressure:	without chiller: 0.8 bar with chiller: 1.5 bar
	Max. pressure:	without chiller: 10 bar with chiller: 8 bar
		 If the mains pressure is higher than 6 bar (even temporarily), install a pressure reducer in the water supply line.
	Hose connection:	The hose connection of the supply hose to be ordered especially considering the connection facility of the installation site.

Boiler capacity	3.2 l
------------------------	-------

Capacities

Coffee Waste bucket: Approximately 6.7 l

Drip tray: Approximately 0.6 l

Standard Freshbrew
ingredient canister: Approximately 5.5 l

Standard Instant
ingredient canister: Approximately 2.6 l

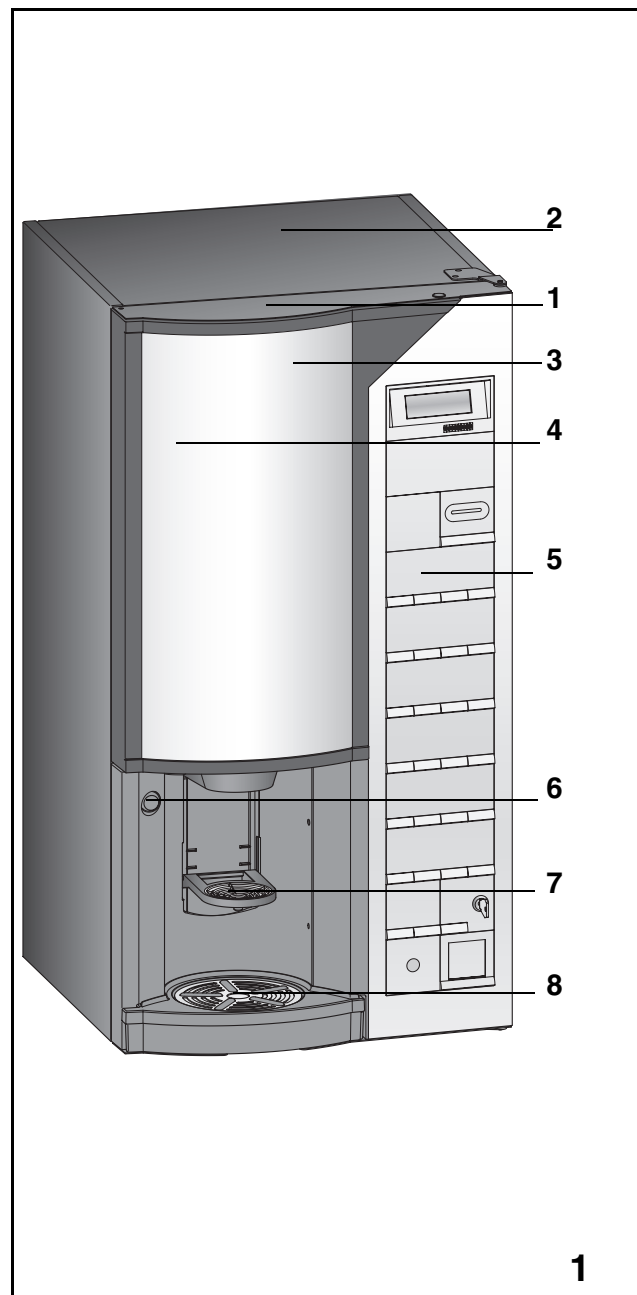
Further system requirements

Ambient temperature. Min. 4°C - max. 36°C (-2/+0) at 80% RH

Acoustic emission: The A-weighted sound pressure level is below 70 dB.

Subject to changes.

Product presentation



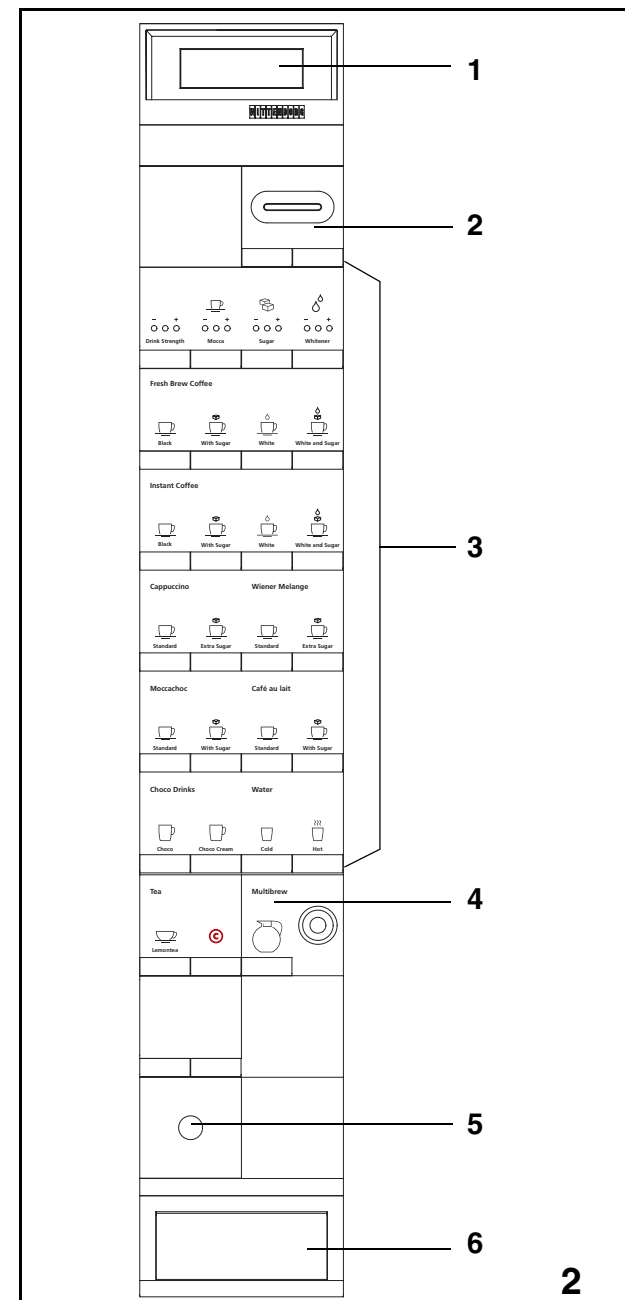
Vending machine components

Machine front (fig 1.):

- 1 Door
- 2 Cabinet
- 3 Advertising poster
- 4 Freshbrew canister
- 5 Operating panel
- 6 Door lock
- 7 Cup carrier
- 8 Pot platform

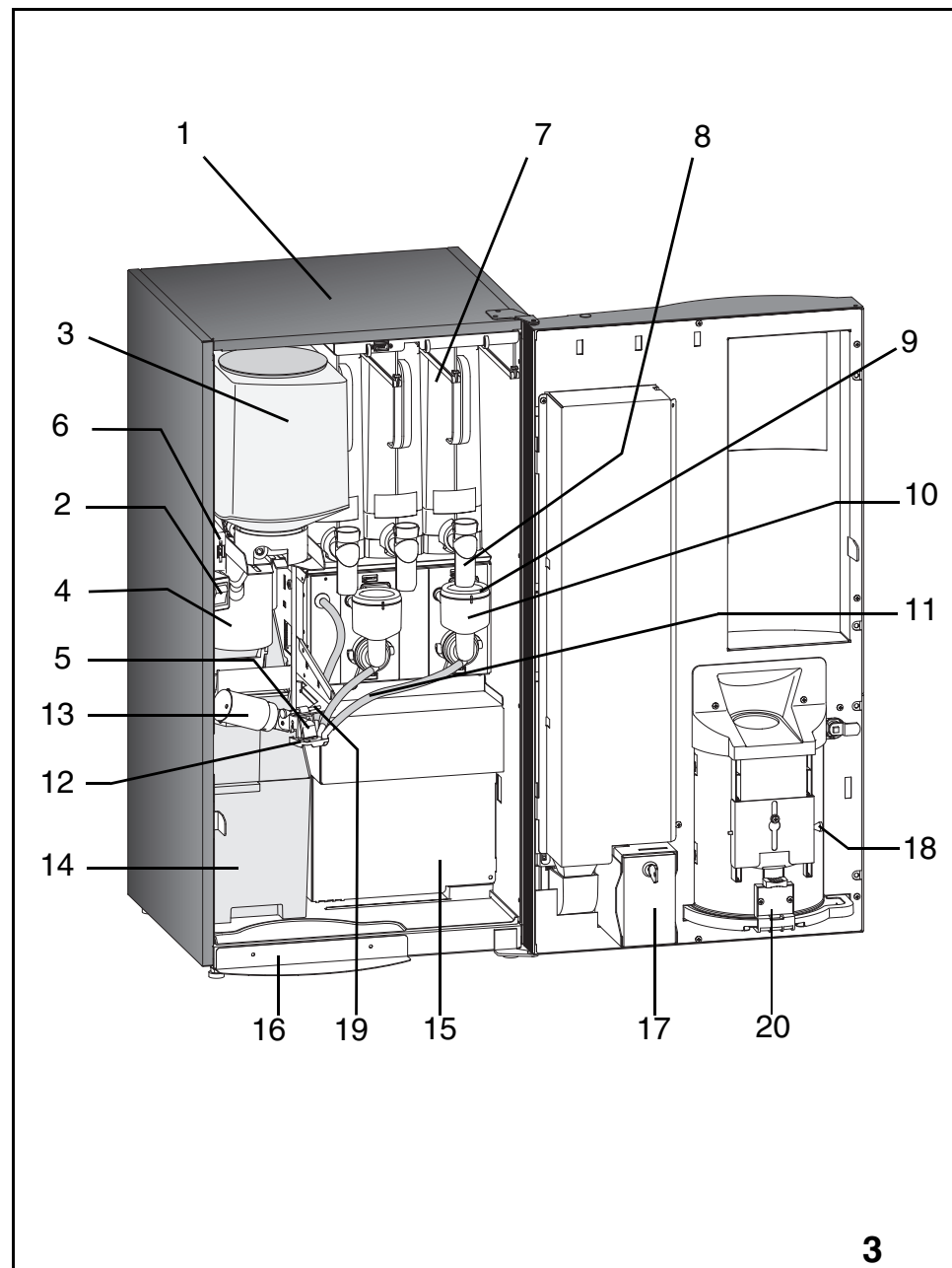
Operating panel (fig.2):

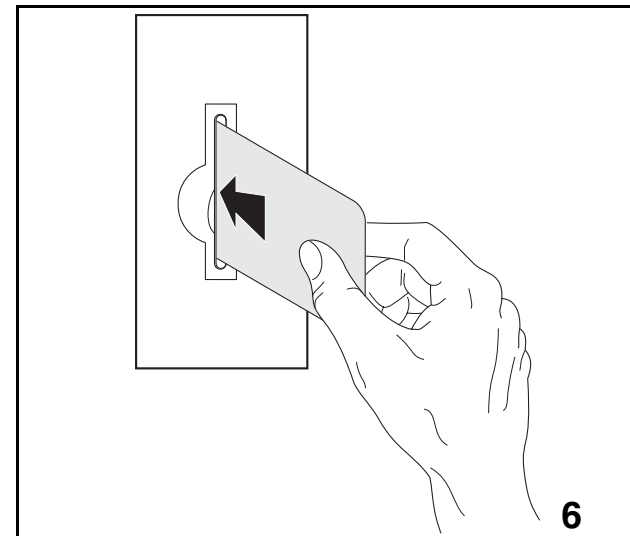
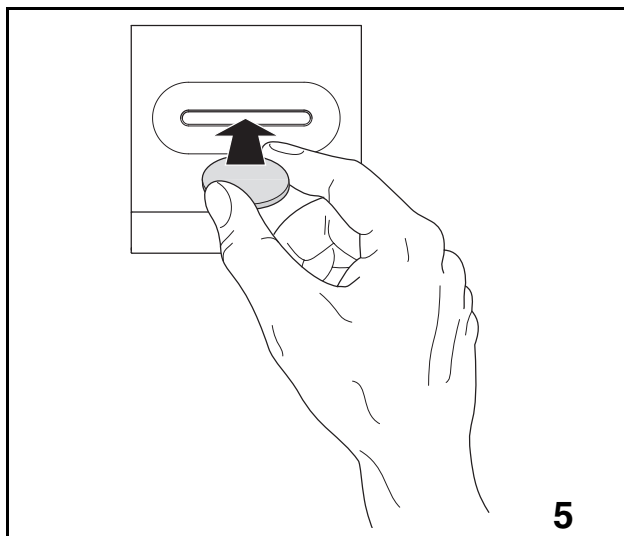
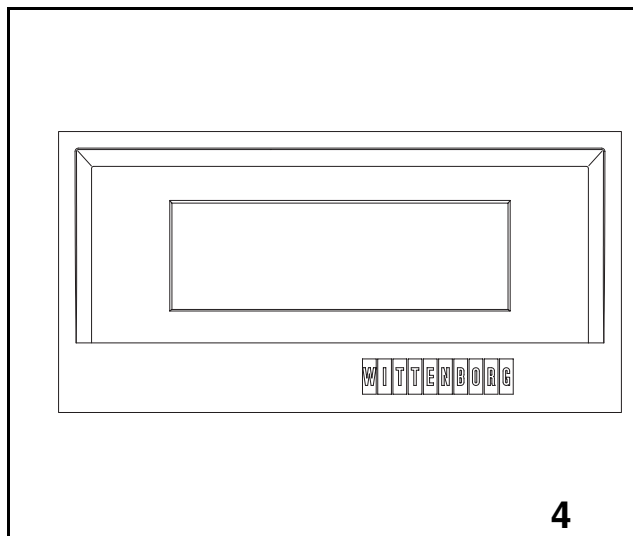
- 1 Display
- 2 Payment panel
- 3 Selection panel
- 4 Pot panel/Discount key
- 5 Optical interface
- 6 Coin return cup



Machine cabinet (fig. 3):

- | | |
|--|---------------------------------------|
| 1 Cabinet | 16 Base tray |
| 2 Main switch | 17 Cash box |
| 3 Coffee canister | 18 Retaining pin for cup carrier |
| 4 Brewer | 19 Retaining pin for distributor head |
| 5 Brewer outlet spout | 20 Drip tray |
| 6 Door switch | |
| 7 Instant Ingredient canisters | |
| 8 Outlet spouts | |
| 9 Mixing funnel hood | |
| 10 Mixing funnel with whipper housings | |
| 11 Outlet hoses | |
| 12 Distributor head | |
| 13 Coffee whipper | |
| 14 Coffee waste bucket | |
| 15 Cover for boiler | |





Payment panel (fig. 2,1)

Display (fig. 4):

The display can show the following:

- the price of the selected drink
- the value on the customer's inserted card
- the value of inserted coins
- the various predefined information texts

Other display texts are explained in section *Display messages*.

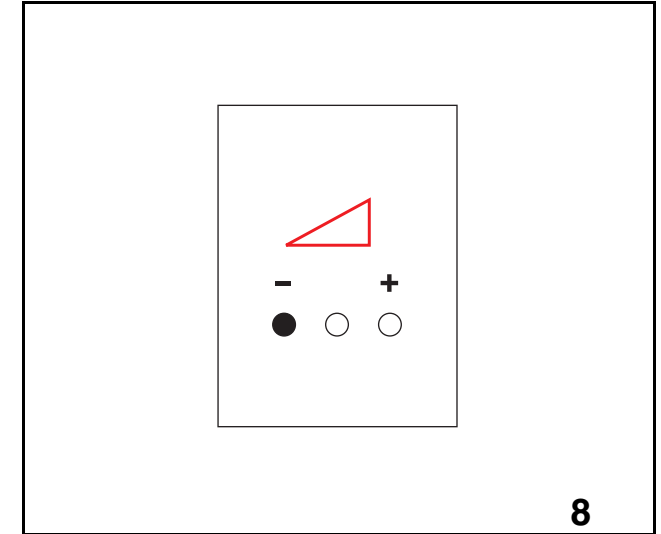
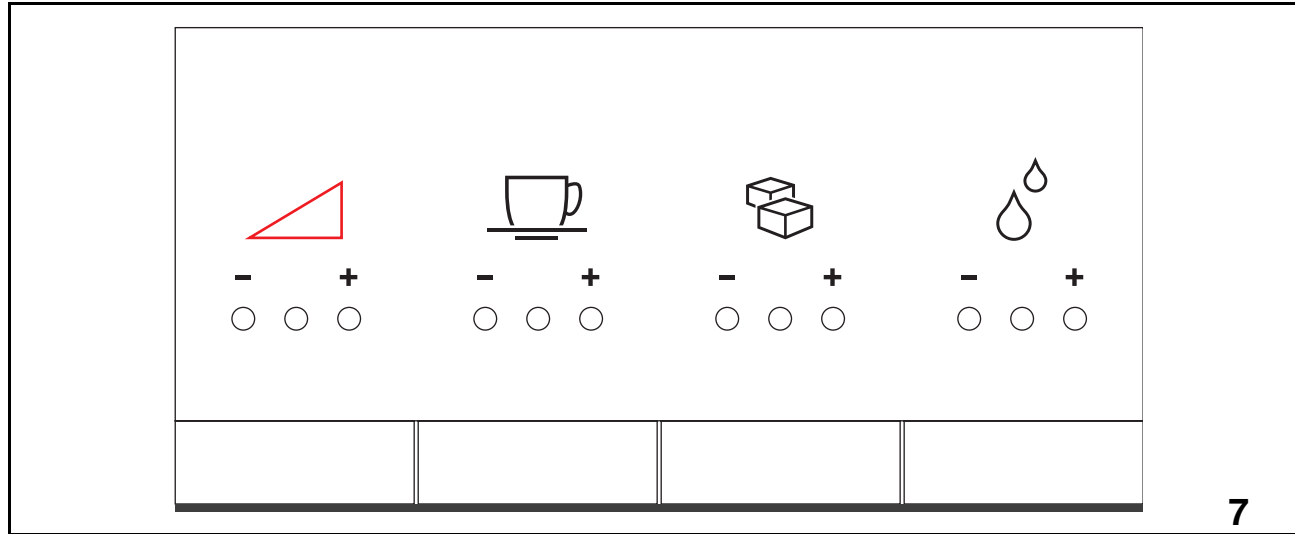
Card and coin insert

- **Coin slot (fig. 5):**

Insert coins to pay the selected drink in cash, or to insert the amount to be added to your card.

- **Card slot (fig. 6):**


Insert card to pay for the selected drink, or to add for selected value



Selection panel (fig. 2,3):


Pre-selection buttons (fig. 7)

Strength button

 determines the strength of the drink dispensed.


- +

Portion (Mocha) button

 determines the size of the portion dispensed


- +

Sugar button

 determines the quantity of sugar in the drink dispensed.

- +

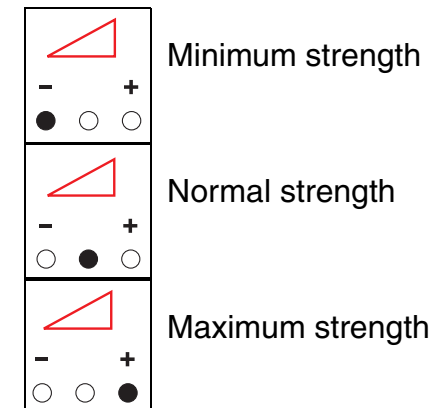
Whitener button

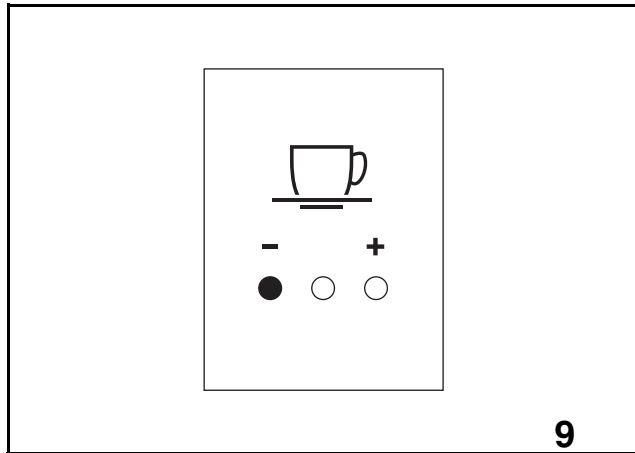
 determines the quantity of whitener in the drink dispensed.

- +

Strength button (fig. 8)

The three LEDs below this symbol determine the strength of the drink dispensed. Press the below button until the appropriate LED lights up:

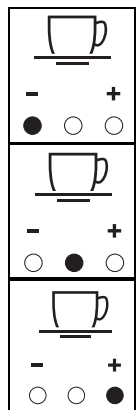




9

Portion (Mocha) button (fig. 9)

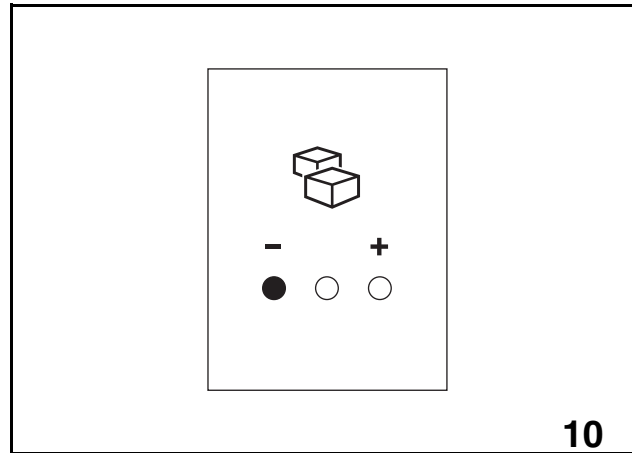
The three LEDs below this symbol determine the (cup) size of the drink dispensed. Press the below button until the appropriate LED lights up:



Small cup size (Mocha)

Normal cup size

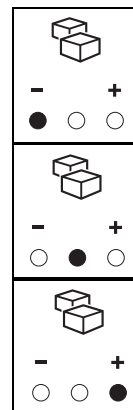
Large cup size



10

Sugar button (fig. 10)

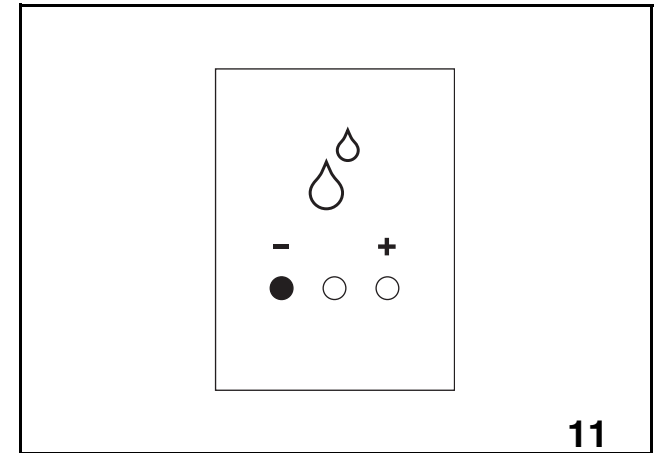
The three LEDs below this symbol determine the quantity of sugar in the drink dispensed. Press the below button until the appropriate LED lights up:



Small portion

Normal portion

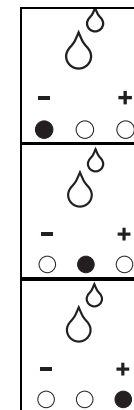
Large portion



11

Whitener button (fig. 11)

The three LEDs below this symbol determine the quantity of whitener in the drink dispensed. Press the below button until the appropriate LED lights up:



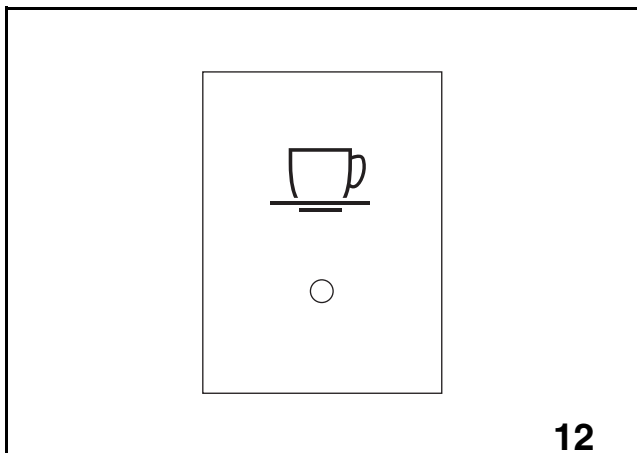
Small portion

Normal portion

Large portion

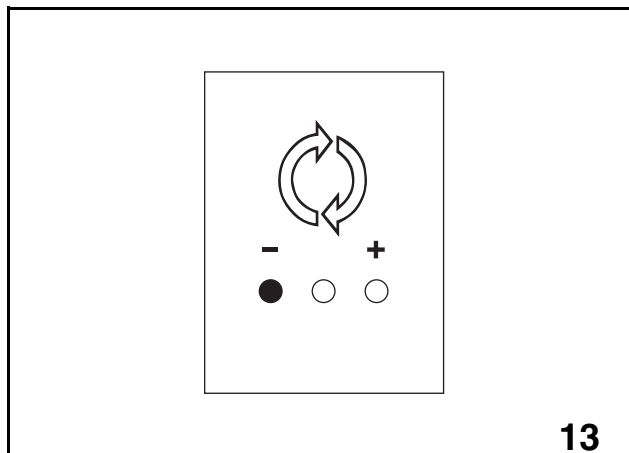


In order to modify the strength of a coffee, of the portion of a coffee, of sugar and/or whitener, you must always remember to press a pre-selection button before you press a selection button. There is a 10 sec. time-out on a pre-selection.



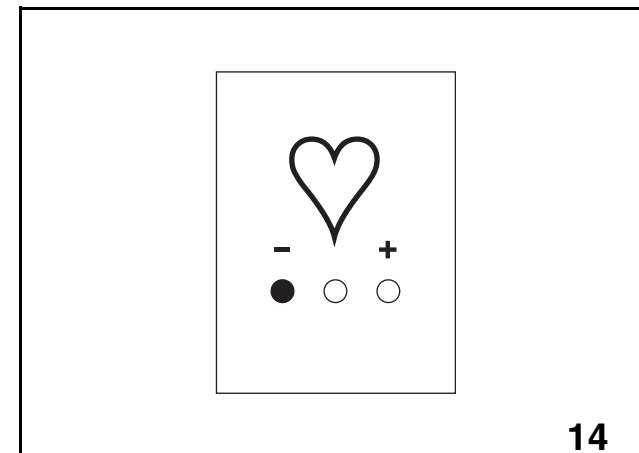
Mocha button
(fig. 12)

Press this button to get a cup of mocha, ie a strong cup of coffee.



Whipped drink button
(fig. 13)

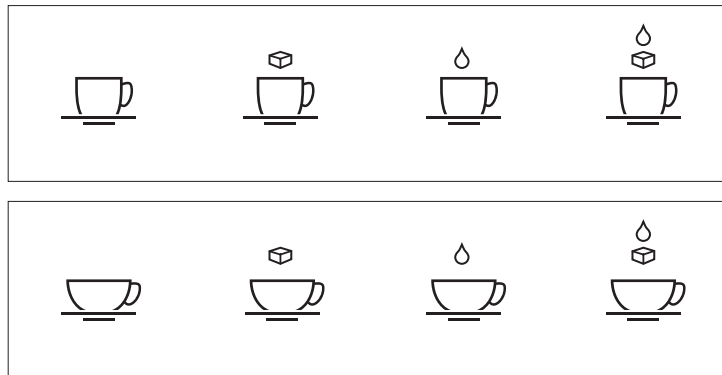
Press this button to whip the drink to be dispensed.



Decaffeinated coffee / tea button
(fig. 14)

Press this button to select decaffeinated coffee / tea in stead of ordinary coffee / tea.

Operation

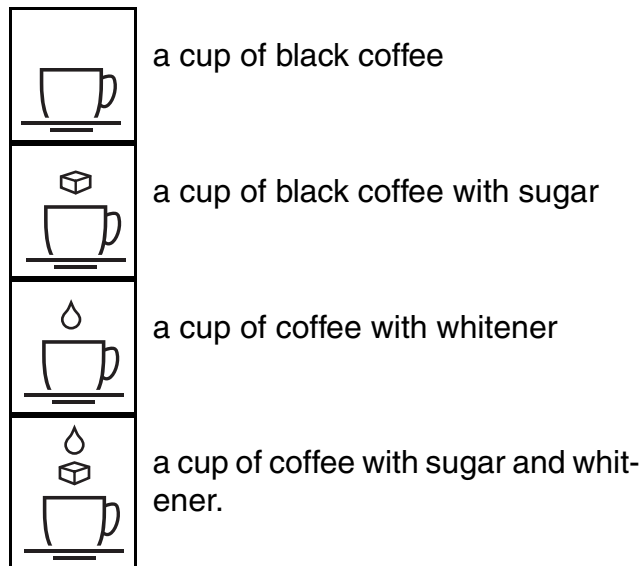


Example of selection buttons for coffee and for tea

15

Selection buttons (fig. 15)

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.



Pot panel (Multibrew)

How to brew a pot: (fig. 16)

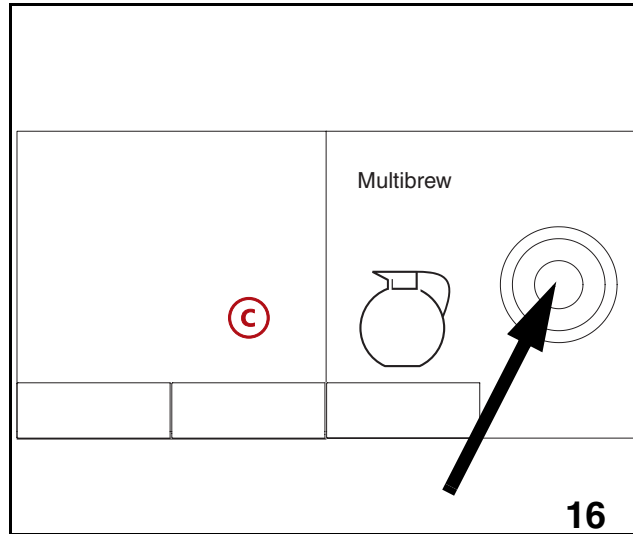
- Insert key in multi-brew lock and turn clockwise.

A predefined number, eg. '4' is shown in the display.

- Place a pot on the pot platform.
- Press the pot button once or more times for the desired number of portions.

Pressing again will increase the displayed counter by one, up to the maximum value (15 or lower, set by the technician).

When the counter reaches the maximum value and the pot button is pressed once more, the counter restarts at the predefined number.



- If the machine is not set to free vend, insert a card with sufficient credit, or insert an amount of coins corresponding to the value of the number of drinks selected or a value above.

- Press the selection button for the wanted drink.

The display steps back one number each time a portion is dispensed.

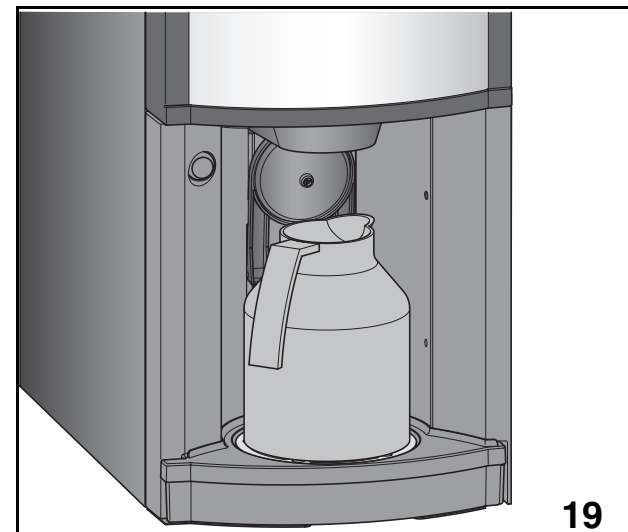
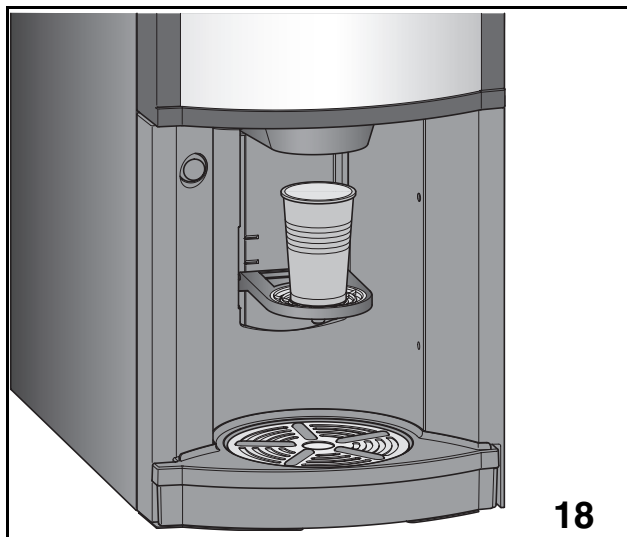
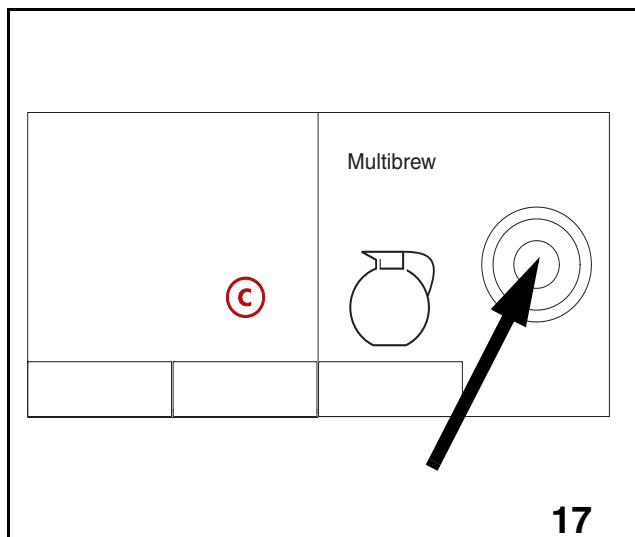
- Remove the pot when the drinks have been dispensed.

- Turn key anti-clockwise and remove it to finish the multi-brew function.



A potbrew in progress can be stopped immediately, simply by pressing the cancel button ©.

The pot sensor may not register a pot of transparent material, eg. glass.



Discount lock

How to use discount lock: (fig. 17)

When using the discount lock, drinks can be dispensed at a preset discount. The discount lock can be used for single drinks and for pots.

If you want one or more drinks at a discount:

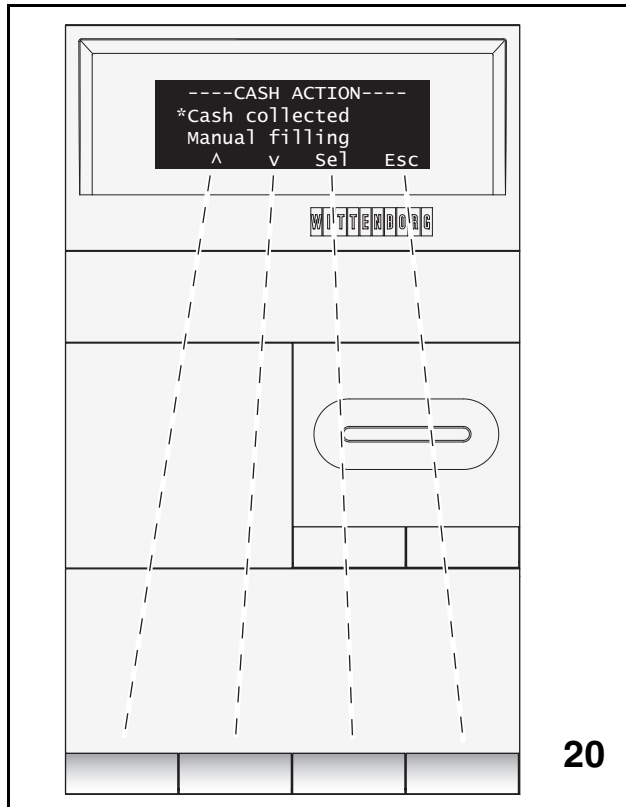
- Insert key in discount lock and turn clockwise.

Drink to be dispensed in cup: (fig. 18)

- place a cup on the cup platform
- Press the selection button of the desired drink.
- After dispensing, remove the cup.
- Finish vend at a discount by turning and removing the key.

Drink to be dispensed in pot: (fig. 19)

- place a pot on the pot platform and press the pot button until the display shows the desired number of dispensings.
- Press the selection button of the desired drink
- After dispensing, remove the pot.
- Finish vend at a discount by turning and removing the key.



Navigation buttons

The four pre-selection buttons are used as navigation buttons for retrieval of sales data, settings, e.g. of prices, and activation of service functions (fig. 20).

(See also diagram “Overview of Operator functions” on page 18.)

How to use the navigation buttons

This table describes how the four pre-selection buttons are used as navigation buttons.

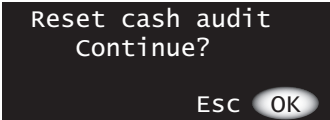

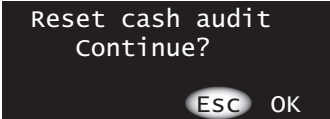

Display	Button	Function
<div> <div> <div>----SALES AUDIT----</div> <div>*Total number</div> <div>Total turnover</div> <div>^ v Sel Esc</div> </div> <div> <div>W</div><div>I</div><div>T</div><div>E</div><div>R</div><div>N</div><div>E</div><div>R</div><div>E</div><div>G</div> </div> </div>		‘Up’ button Press this button to move up one step at a time
<div> <div> <div>----SALES AUDIT----</div> <div>*Total number</div> <div>Total turnover</div> <div>^ v Sel Esc</div> </div> <div> <div>W</div><div>I</div><div>T</div><div>E</div><div>R</div><div>N</div><div>E</div><div>R</div><div>E</div><div>G</div> </div> </div>		‘Down’ button Press this button to move down one step at a time
<div> <div> <div>----SALES AUDIT----</div> <div>*Total number</div> <div>Total turnover</div> <div>^ v Sel Esc</div> </div> <div> <div>W</div><div>I</div><div>T</div><div>E</div><div>R</div><div>N</div><div>E</div><div>R</div><div>E</div><div>G</div> </div> </div>		‘Sel’ button’ Press this button to <ul style="list-style-type: none"> • move one step to the right or <ul style="list-style-type: none"> • activate a function, eg. rinsing.
<div> <div> <div>----SALES AUDIT----</div> <div>*Total number</div> <div>Total turnover</div> <div>^ v Sel Esc</div> </div> <div> <div>W</div><div>I</div><div>T</div><div>E</div><div>R</div><div>N</div><div>E</div><div>R</div><div>E</div><div>G</div> </div> </div>		‘Esc’ button Press this button to <ul style="list-style-type: none"> • move one step to the left or <ul style="list-style-type: none"> • jump to the top of a row, e.g. from “Turnover per drink” to “Total turnover”.

Operation



The functions of the buttons vary. The 'Sel' button, for example, may change to an 'OK' button to confirm an action. The immediate functions can always be read from the bottom line of the display.

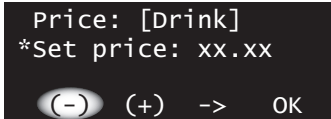

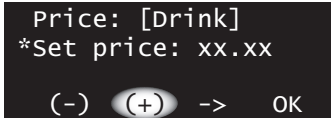

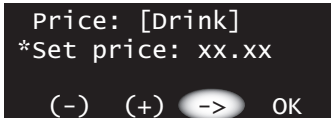

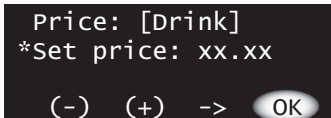

Alternative functions of the navigation keys:

Display	Button	Function
		'OK' button Press this button to confirm an action, e.g. resetting of counters.
		'Esc' button Press this button to exit a function without activating it, e.g. avoid resetting a counter.

Settings buttons

In functions that require settings, for example price settings, the functions of the four pre-selection buttons change accordingly.

This table describes how the four pre-selection buttons are used to enter or change numbers.

Display	Button	Function
		'Minus' button Press this button to decrease a numeric value in increments of one.
		'Plus' button Press this button to increase a numeric value in increments of one.
		'Next' button Press this button to continue to the next digit, e.g. in price setting functions.
		'OK' button Press this button to save changes to settings in the system.

Operation

Overview of Operator and Technicians functions

This diagram shows a total view of the functions of the Operator and technicians menu.

All functions are reached using the four pre-selection buttons to navigate through the menus.
(See explanation on previous pages).

Operator	Filling/Clean	
	Rinse	
		Rinse Total Machine
		Rinse With Stop FB1
		Rinse FB2 (No stop)
		Rinse With Stop FB2
Counters	Counters	
	Sales Audit	
		Total number, nres
		Total turnover,nres
		Total number, res
		Total turnover,res
		No. per drink, nres
		No. per drink, res
		Turn. p. drink,nres
		Turn. p. drink,res
	Cash Audit	
		Money to tubes
		Money to cash box
		Collected money
		Manually filled
		Manually delivered
		Value overpay
	Cashless Audit	
		Revalued amount
	Cup audit	
		Cup number, nres
		Cup turnover, nres
		Cup number, res
		Cup turnover, res
	Free vend audit	
		Freevend no. ,nres
		Freevend no. ,res

Continued on next page

Diagram continued

MB. discount audit	MB. number, nres
	MB. turnover, nres
	MB. number, res
	MB. turnover, res
Discount key audit	D.Key number ,nres
	D.Key turnov. ,nres
	D.Key number ,res
	D.Key turnov. ,res
Step prices audit	SP. turnover ,nres
	SP. turnover ,res
Reset Counters	Reset sales audit
	Reset cash audit
Printing	Not Resetable
	Resetable
Cash action	Cash collected
	Dispense coins
	Manual filling

Continued on next page

Diagram continued

Basic operations	
Change prices	
	Global price
	Price per cup
	Price per drink
	Step prices
	Step price on/off
	Set Step price(s)
	Global stepprice(+)
	Global stepprice(-)
Change quantities	
Drink On/Off	
Service information	
Event log book	
Reset log book	
Program versions	
Machine settings	
Set Freevend,global	
Set Beep mode	
Clock on display	
Temp. on display	
Set date and time	
Key discount	
Machine Info	
	Machine Code
	Operator Code
	Show Install. Date
	Set Install. Date

Continued on next page

Diagram continued

Energy saving

Save Energy On/Off

Set Day(s)

Set Time

Set Temperature

Set Doorlight

Continued on next page

Diagram continued

Technician			
	Adjust system		
		Calibration	
			Ingredient
			Valve
		Temperatures	
		Upper cup sensor	
		Lower cup sensor	
		Cup sensor status	
	Reset relationship		
	Change Comm. route		
		Closed door	
			Serial XModem
			Serial EDDCMP
			IR XModem
			IR EDDCMP
			Back to terminal
		Opened door	
			Terminal Mode
			Configurator Mode

Continued on next page

Diagram continued

Payment settings

Single/Multi vend

Set payment type

Set max credit

Set max change

Obligation to buy

Coin inhibit

Low change inhibit

Audit unit Ext/Int

Exact change eq.

Exact change offset

Keyboard inhibit

Price mode

Revalue

Immediate change

Currency code(auto)

EUR

DKR

GBP

SKR

NOK

Currency code(man)

Multibrew settings

Preset value

Min value

Max value

Means of action

Discount

Continued on next page

Diagram continued



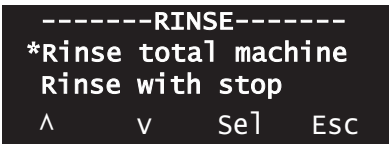
	Change config files	
		Set language file
		Set recipe file
		Set menu file
Shortcuts		
	(1) = Rinse	

Short cuts

Some functions can be reached through short cuts.

A short cut is a one-step way to selected, often used functions, which would otherwise require several steps through the Operator menu to be reached.

How to reach the Rinse functions via a short cut

Step	Action	Display
1.	<p>Unlock and open the door.</p> <p>The display will show the short cut selection window.</p>	
2.	<p>Press "1"</p>  <p>and close the door to go directly to the rinse functions menu.</p> <p>From here you can select one of the available rinse functions.</p>	

Operation

Additional Features



The machine can be set to either multi-vend or single-vend.

Multi-vend

- The machine can be set to enable selection of several drinks, one after the other, from only one payment action by coins or card.

Single-vend

- The machine can be set to return coins / release payment card after each drink selection.

General instructions

- All items of the schedules in this chapter must be carried out at the indicated intervals. If the schedules hereafter are not carried out as indicated, it will influence the reliability of the machine, which will not be covered by guarantee, and there might arise HACCP risks, for which the suppliers of machine and ingredients cannot be held responsible.
- Read the corresponding sections in the operator manual to enable you to exactly perform the individual tasks.



Make sure that all components are installed correctly after the cleaning procedure.



Clean the inside and outside of the vending machine by using a clean damp cloth, and do not splash it.

- Use only cleaning agents approved by the food industry, or the supplier of the vending machine.

- Do not use aggressive or abrasive cleaning agents.

Door switch:

When the door is opened, a special switch ensures that there is no access to energized or moving parts.

Any operation requiring the machine to be energized with the door opened must be carried out **exclusively** by qualified personnel informed about the specific risks of such situation.

The machine may be energized by qualified personnel by inserting a special yellow key into the door switch.

Before starting any maintenance or repair of energized or movable parts, the machine must always be switched off.

Cleaning and maintenance

Maintenance routines

Schedule for daily maintenance routines

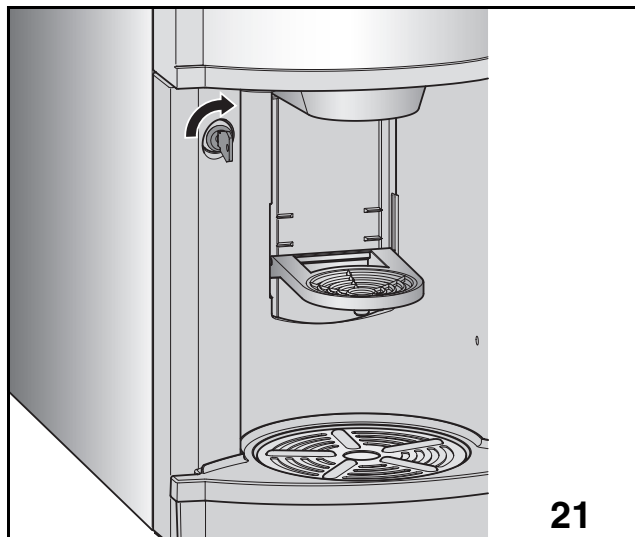
Interval	Type of work / Check	Tools / Materials for the job
Every day	Opening the door Removing the waste bucket Filling the instant ingredient canisters Filling the freshbrew ingredient canister Cleaning the cup carrier Cleaning the drip tray Cleaning the machine interior and exterior Mounting the cleaned parts Rinsing machine Last check	1 bucket of hot water (60-80°C) with cleaning agent. 1 bucket of clean warm (min. 40°C) water Soft clean cloths or paper towels Ingredients

Schedule for weekly and occasional maintenance routines

Interval	Type of work / Check	Exchange kit (hygiene kit)
Every week	<p>Opening the door</p> <p>Removing the coffee waste bucket</p> <p>Filling the instant ingredient canisters</p> <p>Removing and filling the freshbrew coffee canister</p> <p>Disconnecting the machine</p> <p>Removing the distributor head</p> <p>Cleaning the coffee whipper</p> <p>Cleaning the freshbrewer parts</p> <p>Cleaning the cup carrier</p> <p>Cleaning the drip tray</p> <p>Cleaning the ingredient waste tray and the instant ingredient dispensing system components</p> <p>Cleaning the powder traps</p> <p>Cleaning machine interior and exterior</p> <p>Mounting cleaned parts</p> <p>Rinsing and last check</p>	<p>Mixing hoods</p> <p>Instant ingredient mixer units with whipper wheels and sealing rings</p> <p>Powder traps</p> <p>Cup carrier</p> <p>Distributor head with outlets and hoses (incl. coffee outlet spout)</p> <p>Whipper wheel and housing for coffee whipper</p> <p>Complete filter plate</p> <p>Brewing cylinder with plunger</p> <p>Scraper</p> <p>-----</p> <p>All the above mentioned parts together with the coffee waste bucket, the drip trays as well as the instant ingredient canisters are dishwasher-proof. (max. 30 minutes at 60°C, max. 30 seconds at 80°C).</p>

Cleaning and maintenance

Interval	Type of work / Check	Exchange kit (hygiene kit)
Occasionally	Cleaning the instant ingredient canisters Cleaning the freshbrew ingredient canister Replacing the filter roll Rinsing / descaling the brewer	



Opening and disconnecting machine

- Turn the door key clockwise in keyhole (*fig. 21*).



The 230 V current is automatically turned off, but the machine still carries 24V current.

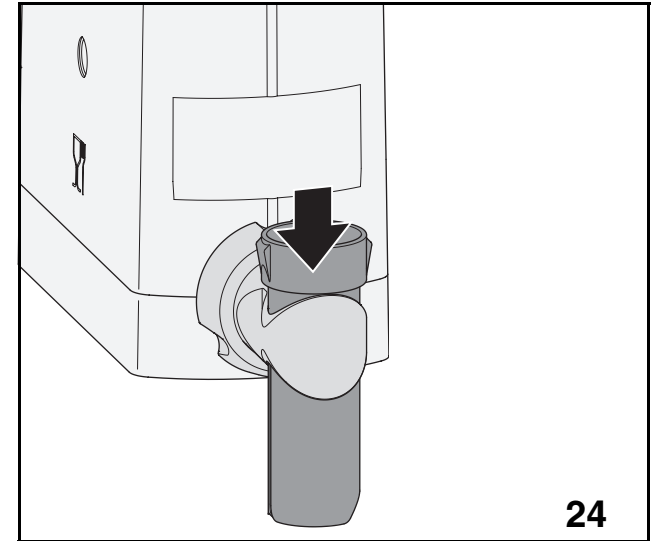
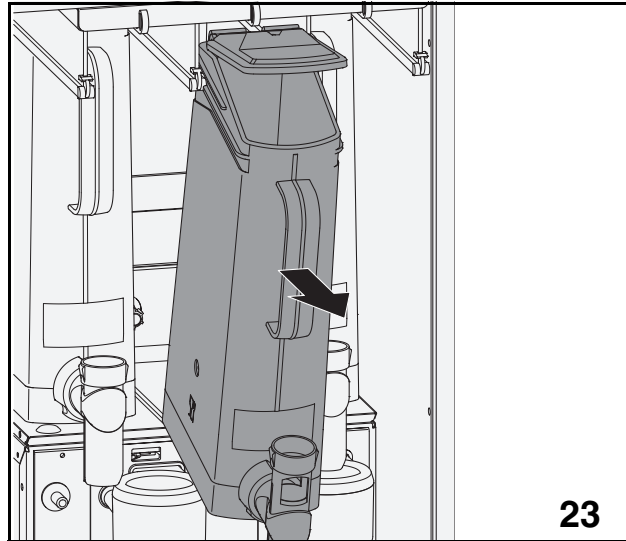
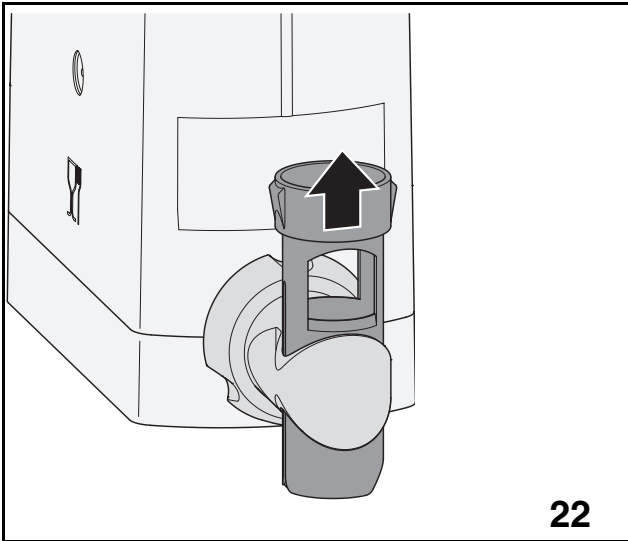


If power is turned on, be careful not to touch moving parts and electrical components!

Removing the waste bucket

- Take out the coffee waste bucket.
- Remove plastic bag from bucket.
- Insert a new liner in waste bucket.
- Wipe clean the area behind the bucket.

Daily routines



Filling the instant ingredient canisters



Check ingredient level of instant ingredient canisters daily. Replenish when necessary.



The instant ingredient canisters should be labelled to avoid ingredients being poured into wrong canisters.

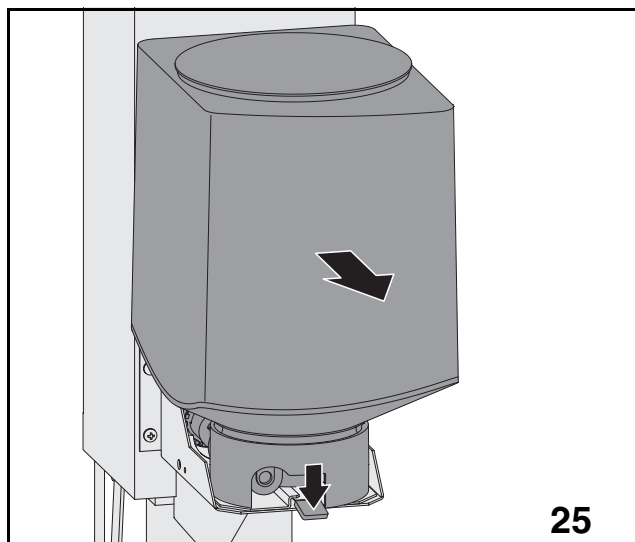
- Pull base tray forward.
- Push the outlet tube upwards to close the outlet spout of the wanted canister (*fig. 22*).

- Take the canister by the handle and pull it forwards (*fig. 23*) until it is hanging freely at its end stop in guiding rail. The lid is automatically triggered open.

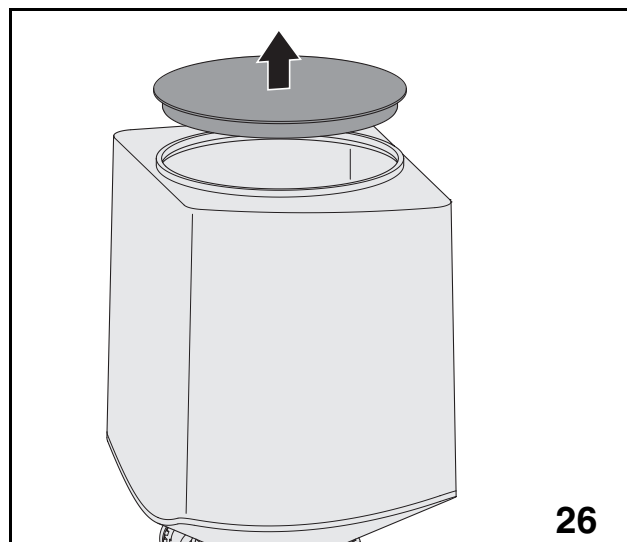
If required, lift the canister upwards and pull forwards over the end stops in guiding rail. Place canister on a plain, clean surface.

- Fill the canister with instant ingredient and push back canister in place.

- Push the outlet tube downwards to open the outlet spout (*fig. 24*).
- Repeat procedure until the required number of canisters have been filled.
- Push base tray back in place.



25



26

Filling the freshbrew ingredient canister



Fill according to use of ingredient.

- Pull forward the freshbrew ingredient canister (*fig. 25*).

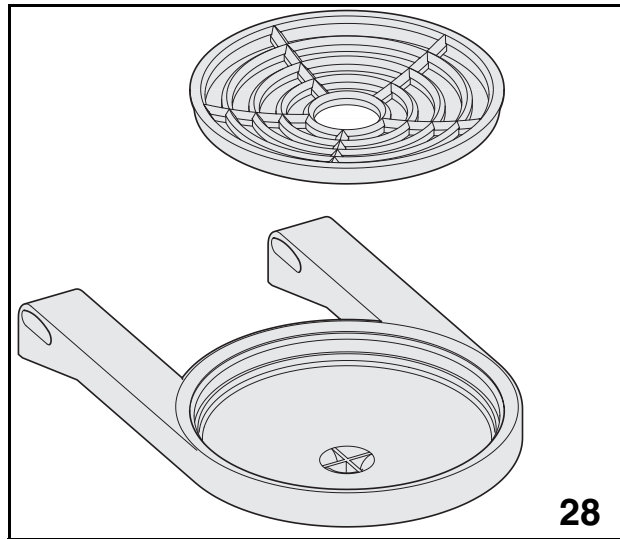
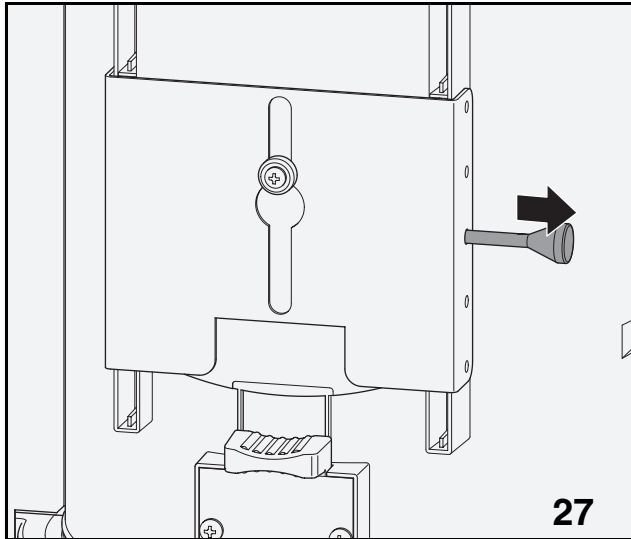
- Remove the lid (*fig. 26*).
- Fill the canister with freshbrew product.
- Put lid back on.

- Push back canister in place.



Check to make sure that the canister is locked in place.

Daily routines

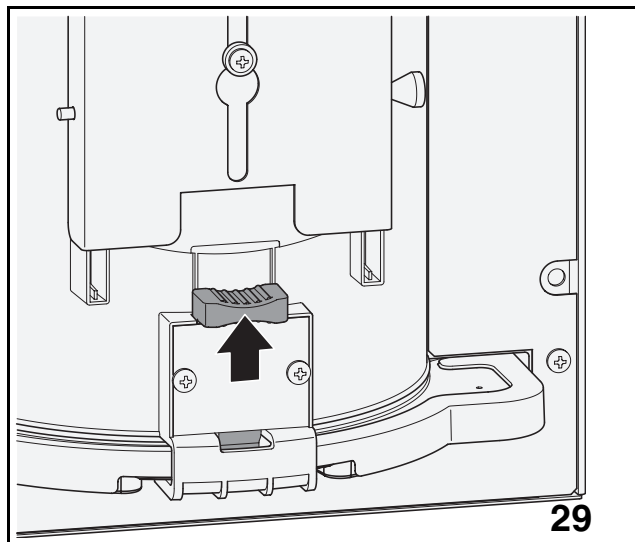


Cleaning the cup carrier

- Remove the cup carrier: Take hold of the cup carrier with your right hand and with your left hand remove the corresponding retaining pin, situated on the rear side of the cup station. (*fig. 27*).
- Disassemble cup carrier (*fig. 28*). Clean the drip grid (*a*) and tray (*b*) in hot water with cleaning agent and dry parts.



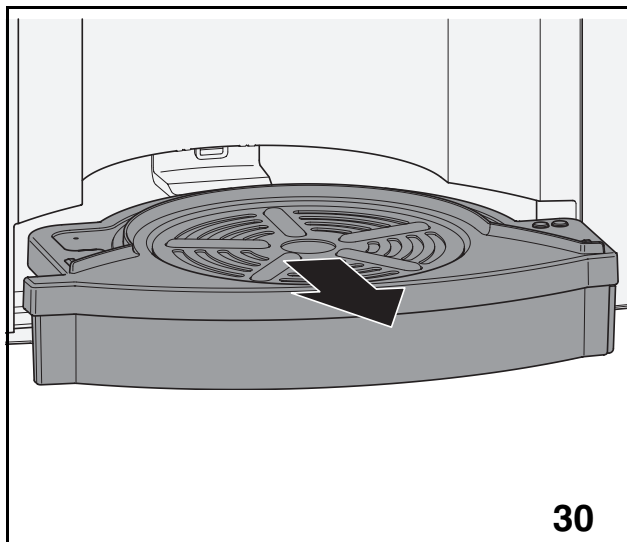
The complete cup carrier is dishwasher-proof.



29

Unlocking the drip tray

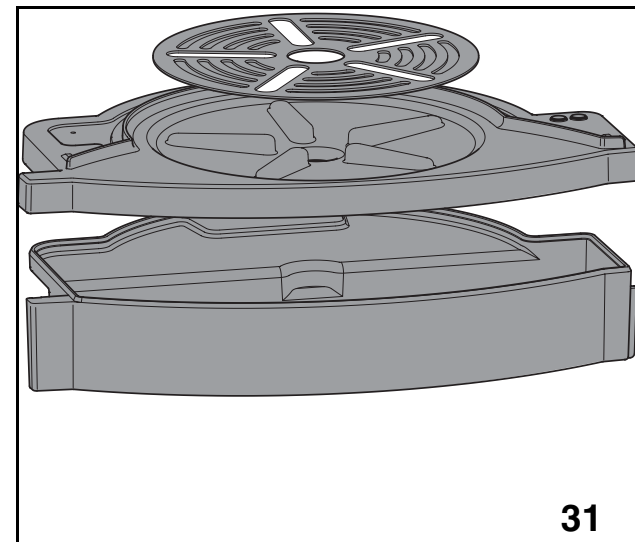
- If locked, pull upwards lock for drip tray (*fig. 29*), situated on the rear side of the cup station.



30

Cleaning the drip tray

- Take hold of the drip tray with one hand and pull it forwards in a gentle movement. (*fig. 30*)



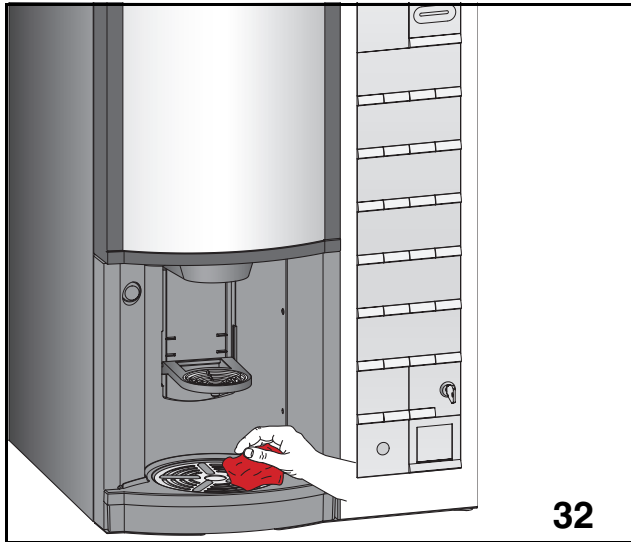
31

- Remove drip grid from lid.
- Remove the lid and empty the tray.
- Clean drip grid (a), lid and tray in hot water with cleaning agent and wipe parts dry (*fig. 31*).



Wipe sensor (*fig. 31,a*) in lid dry.

Daily routines

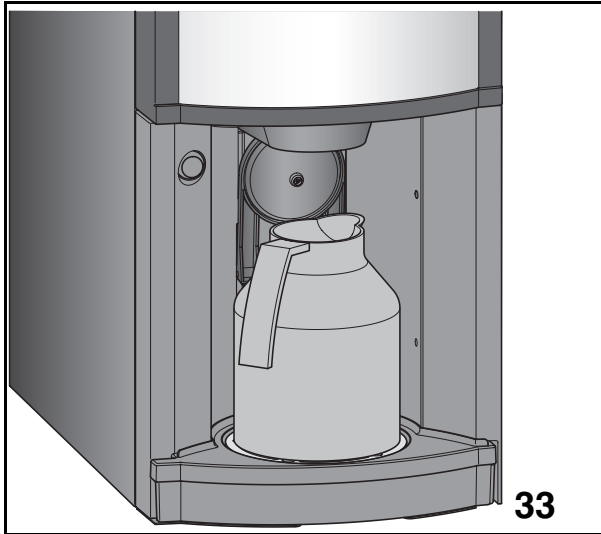


Cleaning inside and outside

- Clean the door and the housing inside and outside, and finally the bottom with a clean, damp cloth (*fig. 32*).

Mounting of cleaned parts

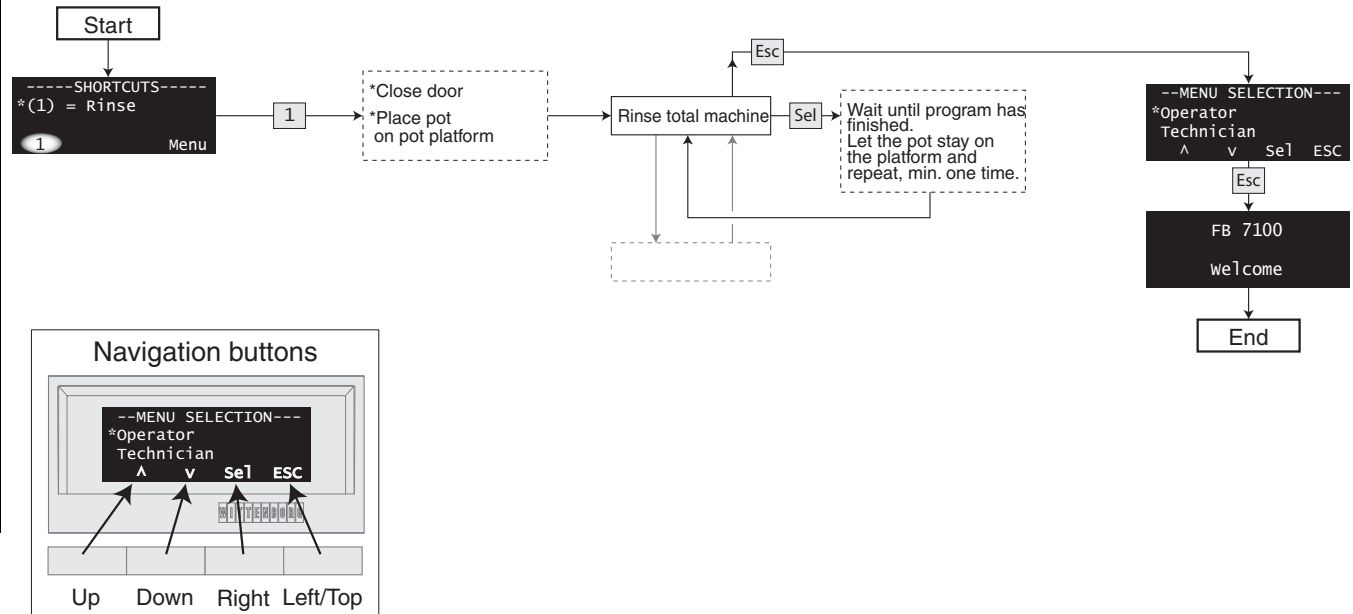
- Remount all parts.



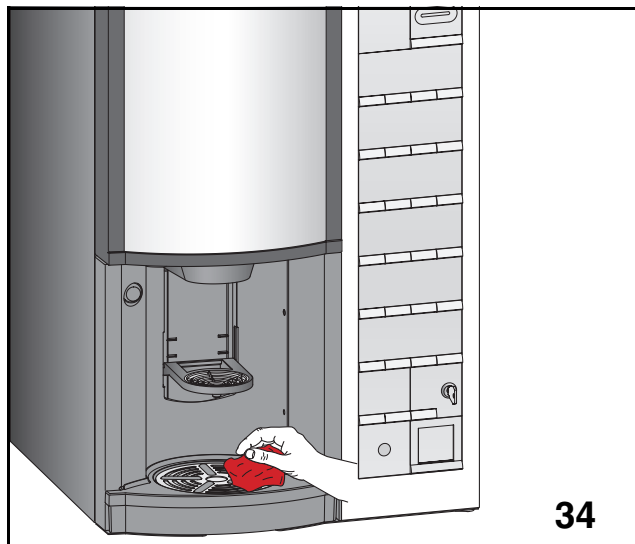
33

Rinsing machine

- Have an empty pot (min. 1,5 l) ready to place on the pot platform (*Fig. 33*)
- Turn to the display and follow the diagram to perform a machine rinse.



Daily routines

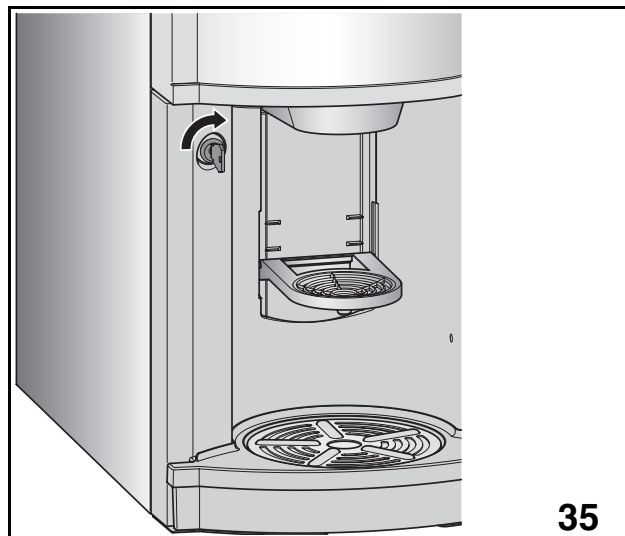


Last check

- Clean the machine with a damp cloth on the outside (*Fig. 34*).
- Perform a test dispensing by pressing the selection button for coffee with sugar or tea with sugar.



There is the risk of being scalded by hot water. Observe the safety precautions in the operator manual.



Hygiene kit

- In order to save time when cleaning and filling it is recommended to have a hygiene kit consisting of:
 - mixing hoods.
 - instant ingredient mixer unit with whipper wheels
 - powder traps
 - Distributor head with hoses and coffee outlet
 - complete filter plate
 - brewing cylinder with plunger
 - scraper
 - cup carrier
 - Whipper wheel and housing for coffee whipper

Opening and disconnecting machine

- Turn the door key clockwise in keyhole (fig. 35).



The 230 V current is automatically turned off, but the machine still carries 24V current.

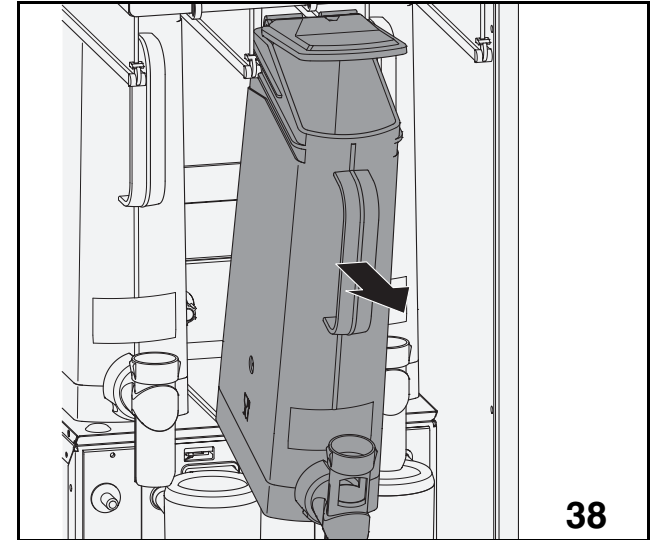
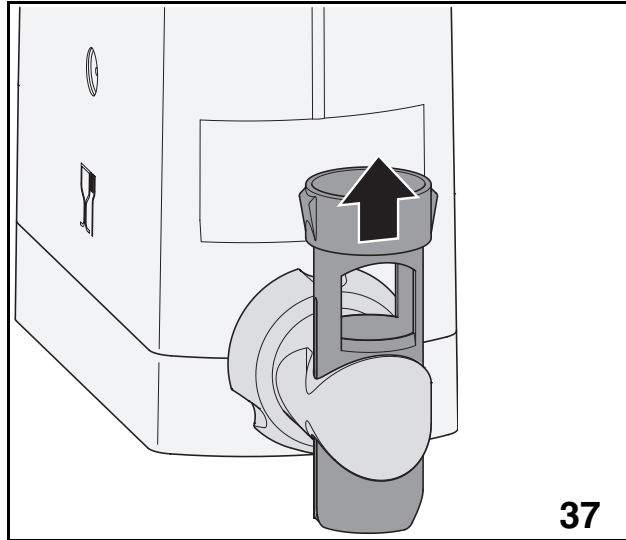
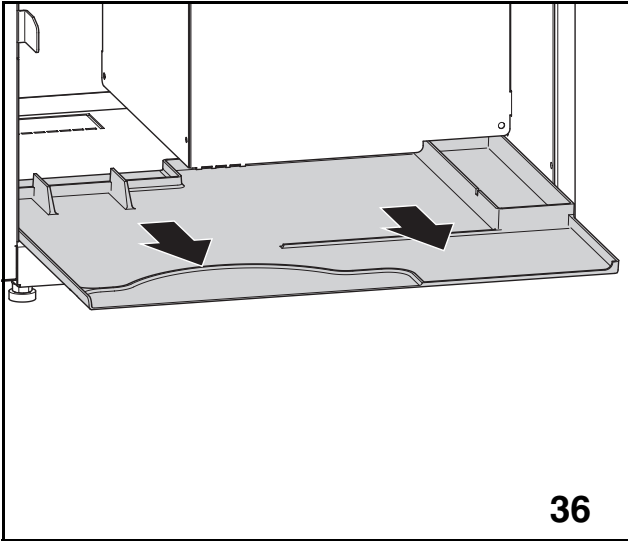


If power is turned on, be careful not to touch moving parts and electrical components!

Removing the coffee waste bucket

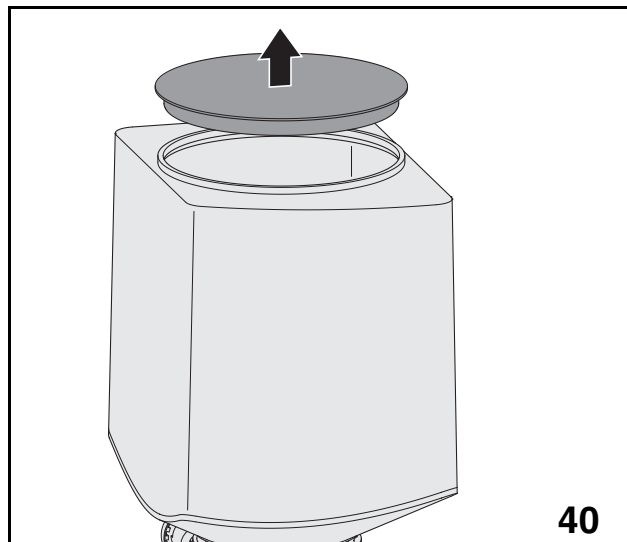
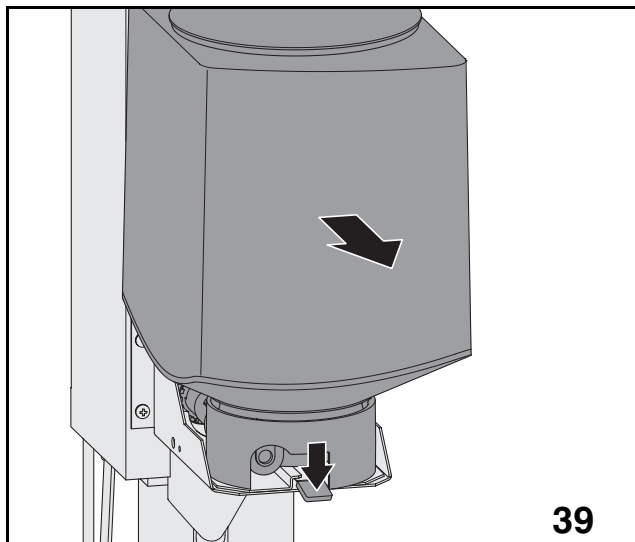
- Remove and empty the coffee waste bucket (see daily cleaning)

Weekly routines




Filling the instant ingredient canisters

- Pull forward the base tray (*fig. 36*).
- Push the outlet tube upwards to close the outlet spout of the wanted canister (*fig. 37*).
- Fill the instant ingredient canisters one by one as described in daily cleaning (*fig. 38*).
- Leave the outlet spouts closed.
- Remove the base tray from machine.



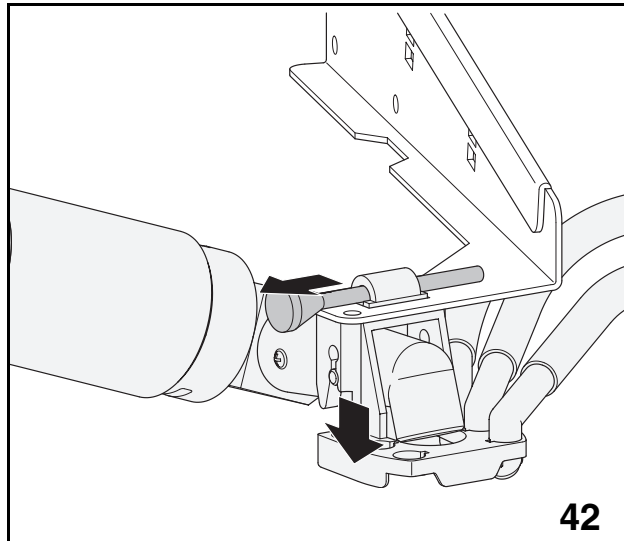
Removing and filling the freshbrew coffee canister

- Press the green end cap and remove the freshbrew ingredient canister (see daily cleaning) (*fig. 39*).
 - Remove the lid and fill the canister (*fig. 40*).
 - Put back on lid, and place canister outside of machine on a plain clean surface.
-  Do not use pressure to force more coffee / tea into the canister as this could damage the dosing system.



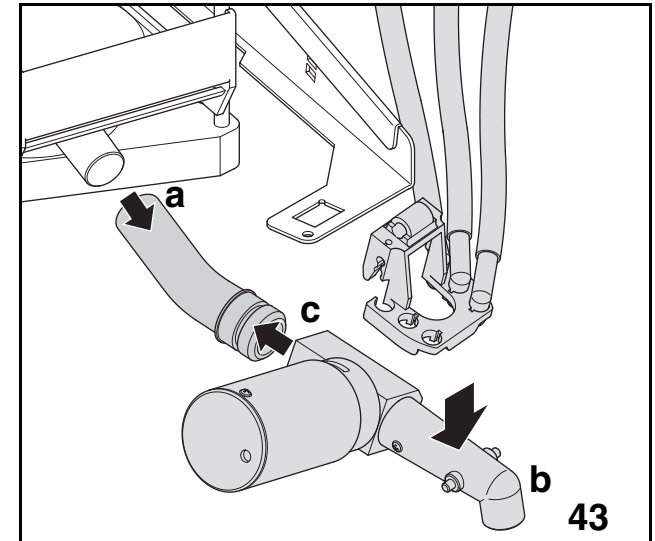
Disconnecting machine

- Turn machine **off** with main switch (*fig. 41*).



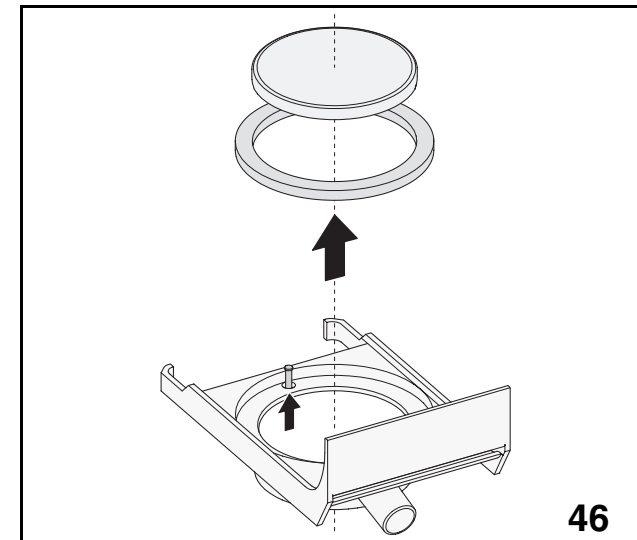
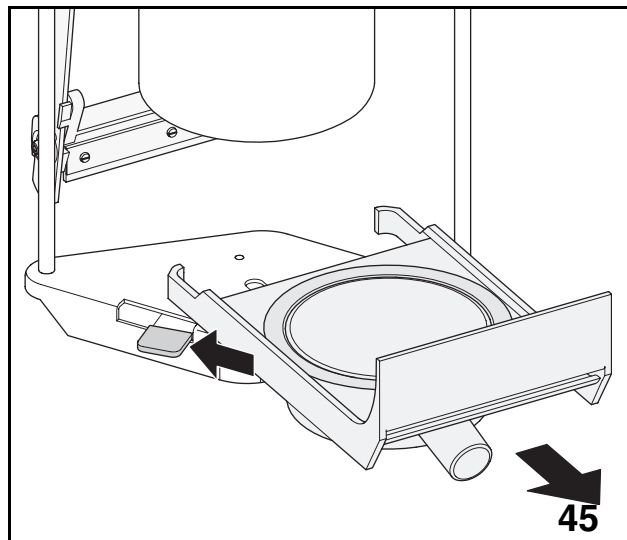
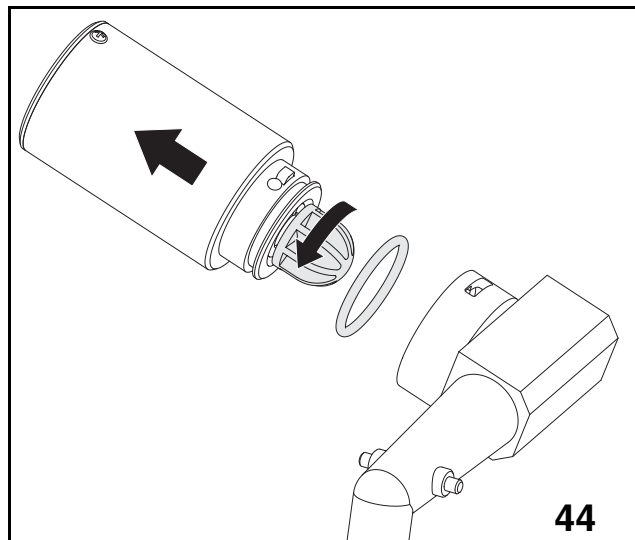
Removing the distributor head

- Remove the retaining pin and distributor head. Leave the hoses and coffee outlet spout left on (*fig. 42*).



Cleaning the coffee whipper

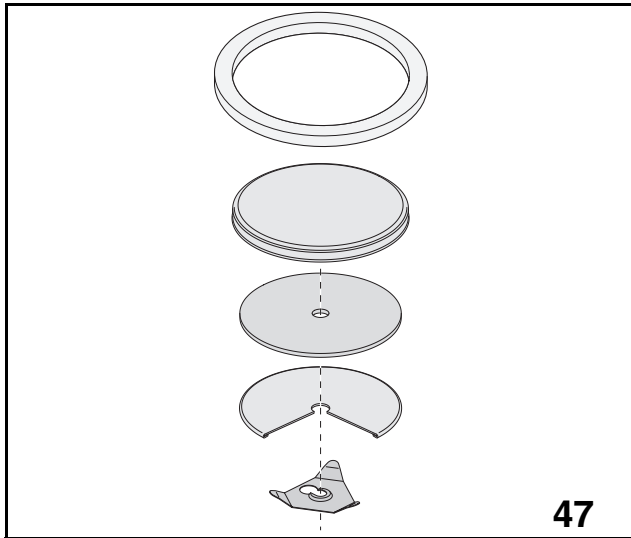
- Remove the small transparent outlet pipe with coffee whipper from the filter plate, (*a, fig. 43*).
- Detach the the outlet spout with coffee whipper from the distributor head (*b, fig. 43*).
- Remove small transparent outlet pipe with adapter from coffee whipper (*c, fig. 43*).



Cleaning the freshbrewer parts

- Remove the whipper motor from the whipper housing (*fig. 44*).
- Remove the O-ring.
- Remove the whipper wheel by turning it counter clockwise.
- Press lock at the support backwards and withdraw filter plate holder (*fig. 45*).
- Remove filter: Press out the sealing ring and the filter plate by means of the ejector pin (*fig. 46*).

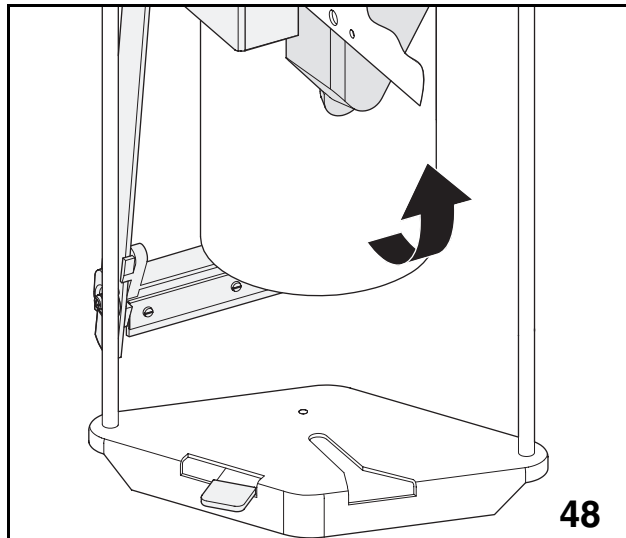
Weekly routines



- Disassemble filter plate and clean it (fig. 47). If required decalcify the filter.¹



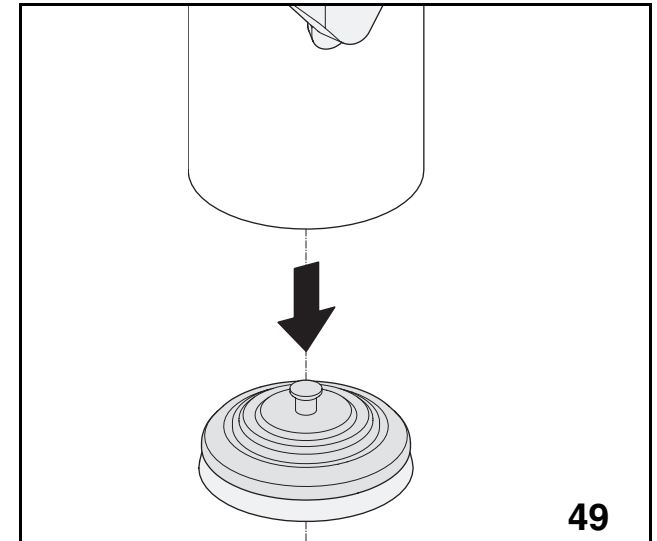
The Filter plate is dishwasher-proof.



- Take hold of the brewer cylinder by placing your thumb on the outside and the rest of your fingers inside the “brewing chamber”, tilt the cylinder smoothly and remove cylinder (fig. 48).

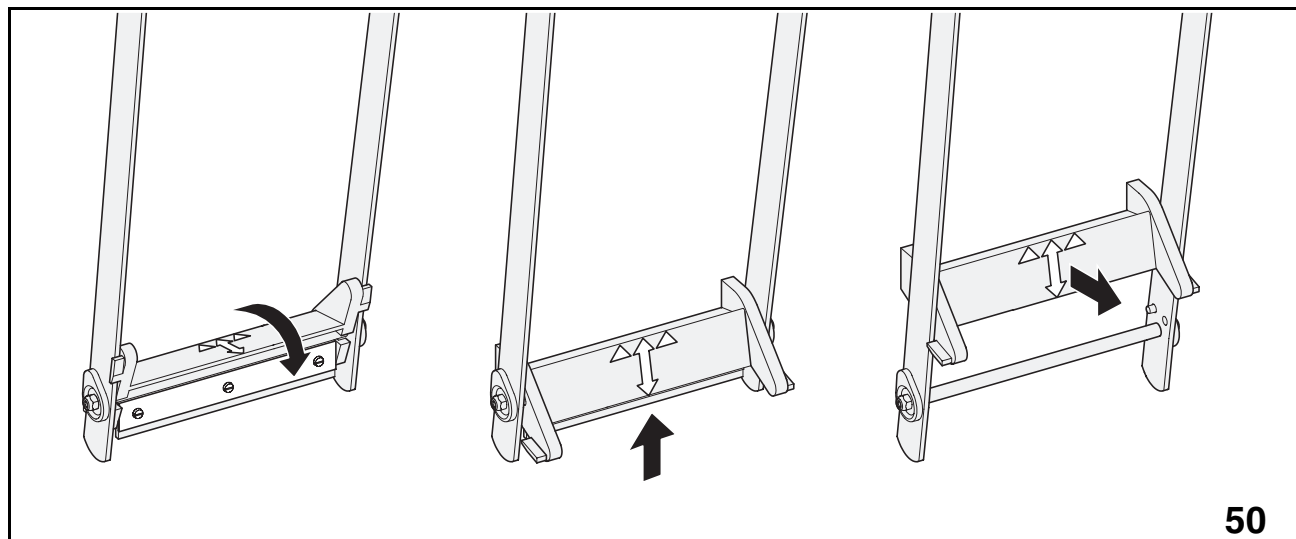


The Brewer cylinder with plunger is dishwasher-proof.



- Remove plunger from brewer cylinder from below of brewing chamber (fig. 49).

1. For cleaning and decalcifying: Refer to HACCP guidelines on Quick Reference Card.



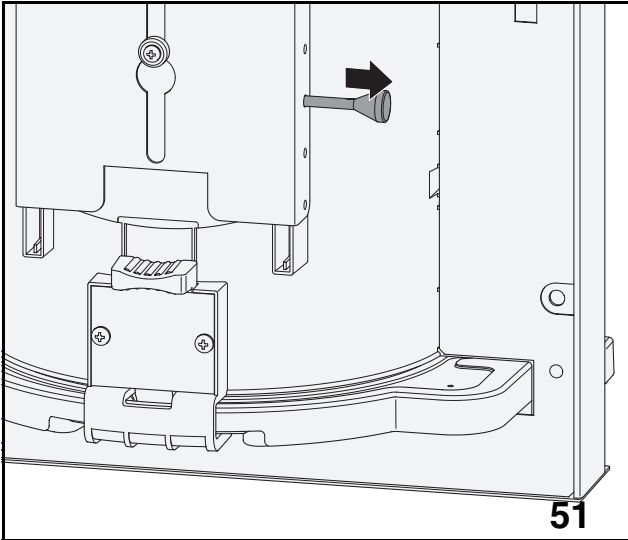
- Remove scraper by turning and lifting it straight up (*fig. 50*).



Soak all parts removed (Housing and whipper wheel for coffee whipper, outlet spout, filter plate, filter plate holder, sealing ring, scraper, plunger and brewer cylinder) at least for 15 minutes in hot water with cleaning agent.

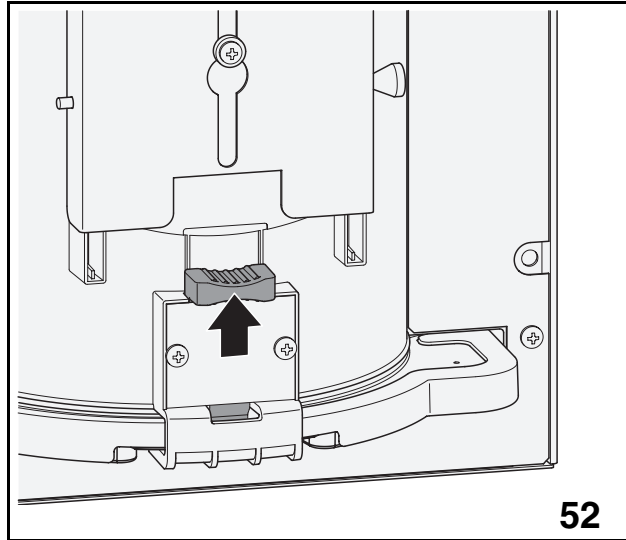
The scraper is dishwasher-proof.

Weekly routines



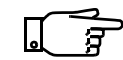
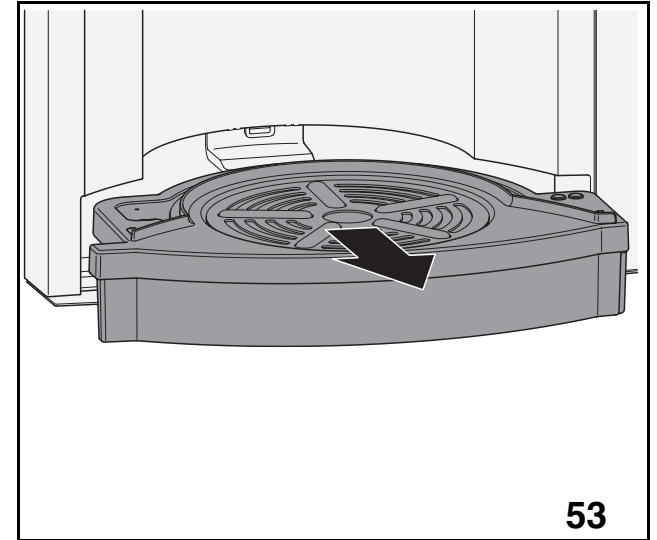
Cleaning the cup carrier

- Remove the cup carrier (*fig. 51*) (see daily cleaning).
- Clean the drip grid and tray (see daily cleaning).

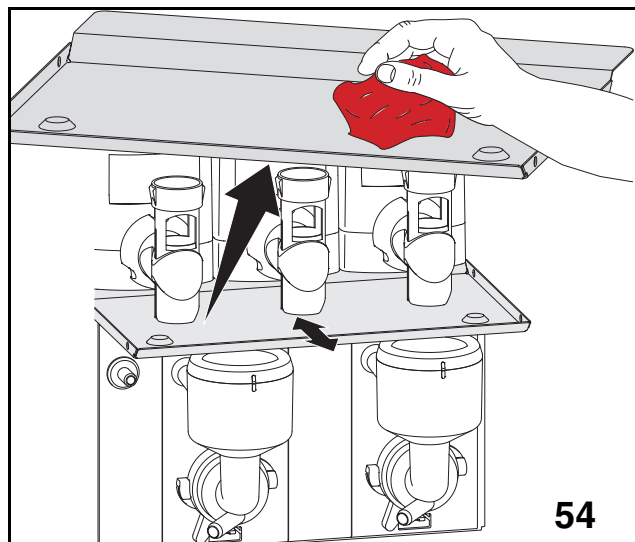


Cleaning the drip tray

- Take out and clean the drip tray and its parts (*fig. 52*). (see daily cleaning).

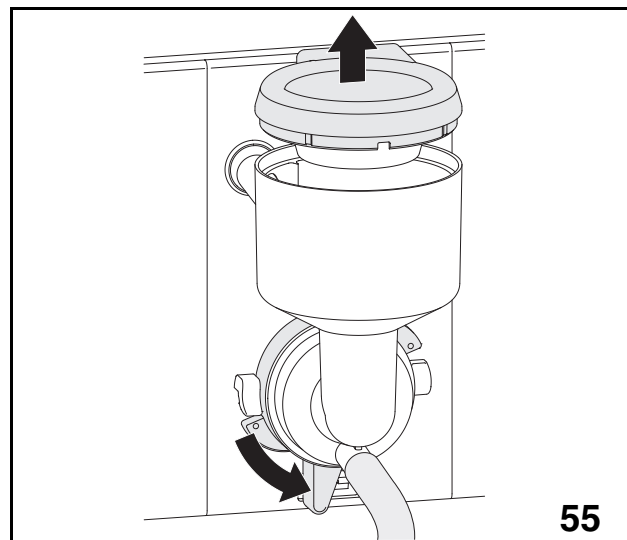


Always wipe sensor in lid dry (*fig.53*).



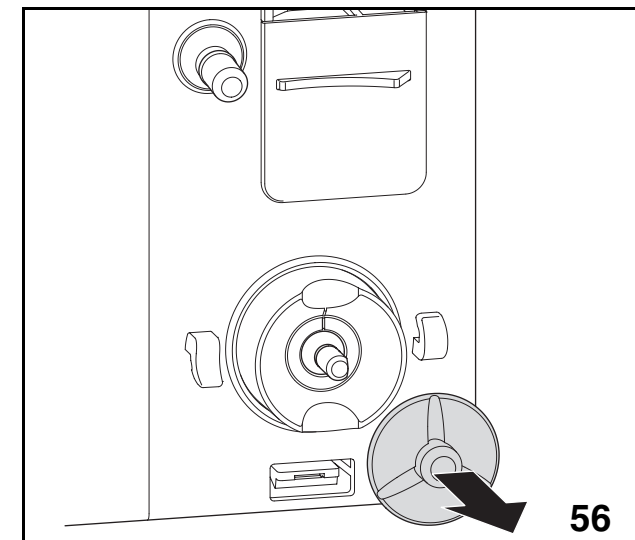
Cleaning the ingredient waste tray

- Remove and wipe clean the ingredient waste tray with a moist cloth (*fig. 54*).
- Relocate the ingredient waste tray.



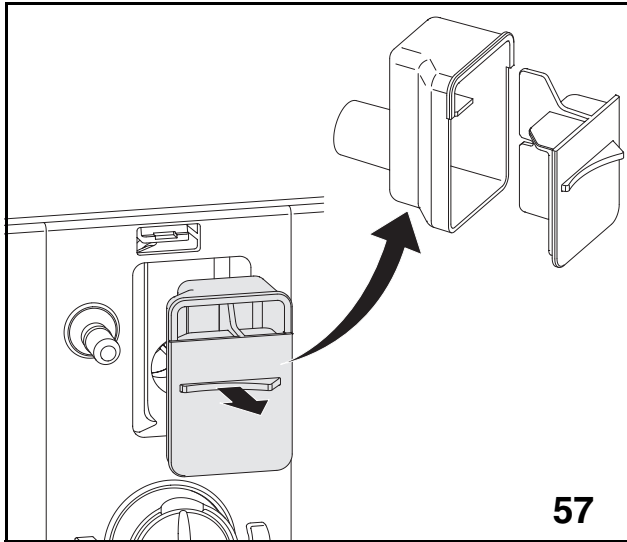
Cleaning the instant ingredient dispensing system components

- Remove the mixing hood by lifting off (*fig. 55*).
- Loosen locking ring by pressing release lever anti-clockwise and pull out mixing funnel leaving hose back on (*fig. 56*).
- Remove sealing ring.



- Pull off the whipper wheel (*fig. 56*).
- Repeat procedure until all mixing funnels have been removed.

Weekly routines



Cleaning the powder trap

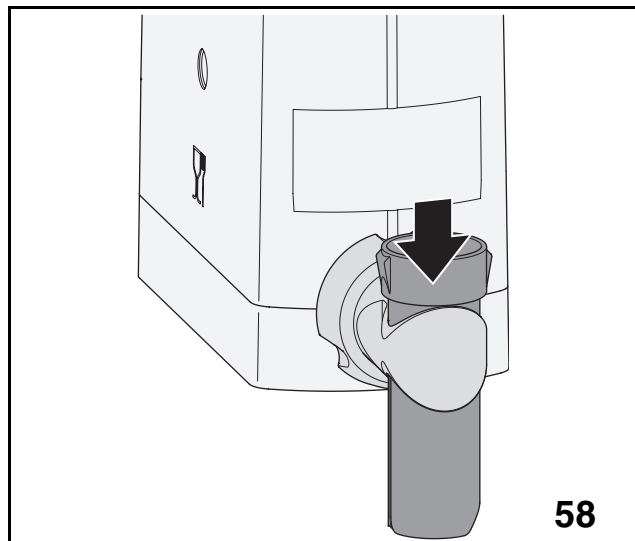
- Take hold of the small handle on the powder trap and pull out (*fig. 57*).
- Separate front and rear parts.
- Soak both powder trap components in hot water with cleaning agent.
- Rinse parts in clean hot water, dry and relocate items in reverse order.

Cleaning inside and outside

- Clean the door and housing inside and outside, and finally the bottom with a clean, damp cloth.
- Flush all parts which have been soaking thoroughly with clean and warm water.
- Dry all parts with a dry cloth.



Check that no dirt or cleaning agent remains on the parts.



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Mounting cleaned parts

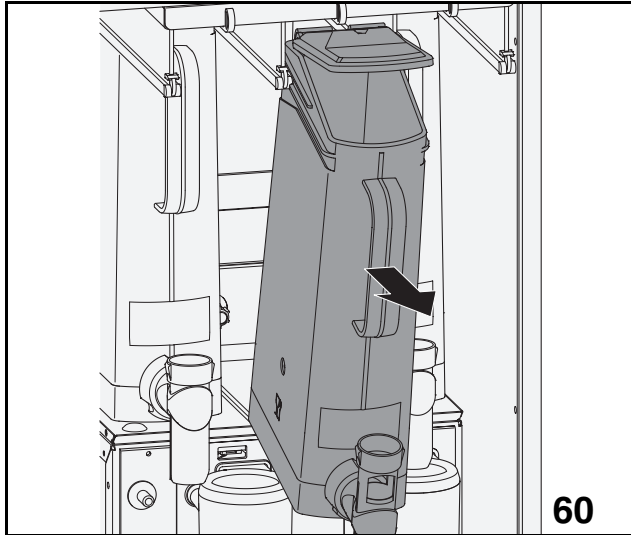
- Remount all parts in reverse order.
- Push the outlet tubes downwards to open the outlet spouts of the canisters (*fig. 58*).



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Rinsing and last check

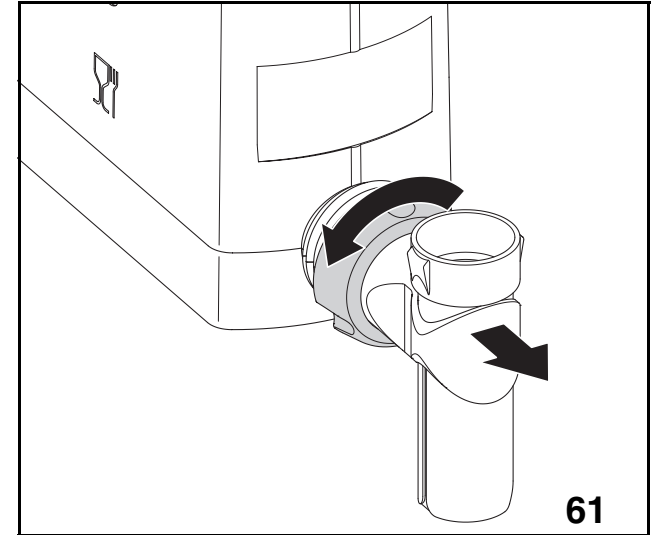
- Turn on machine with the main switch.
- Rinse machine twice (see *Daily Cleaning*).
- Clean outside of machine with a clean damp cloth (*fig. 59*).
- Perform a test dispensing by pressing a selection button eg. coffee with milk and sugar.



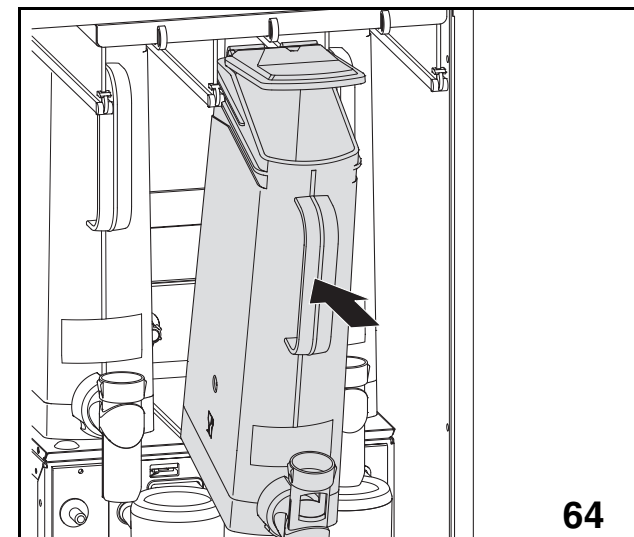
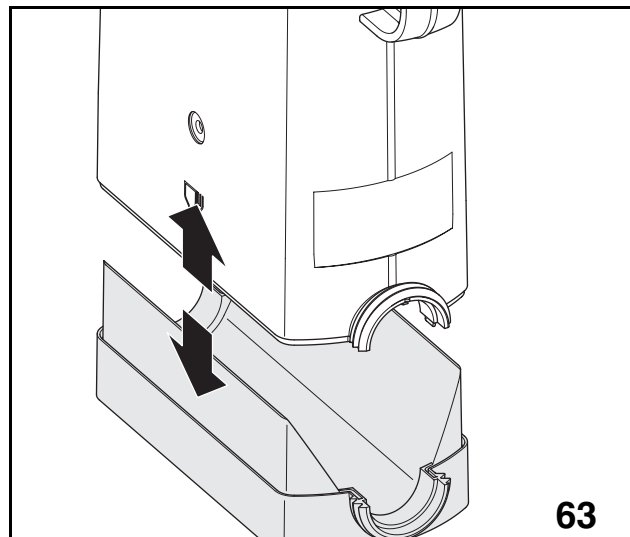
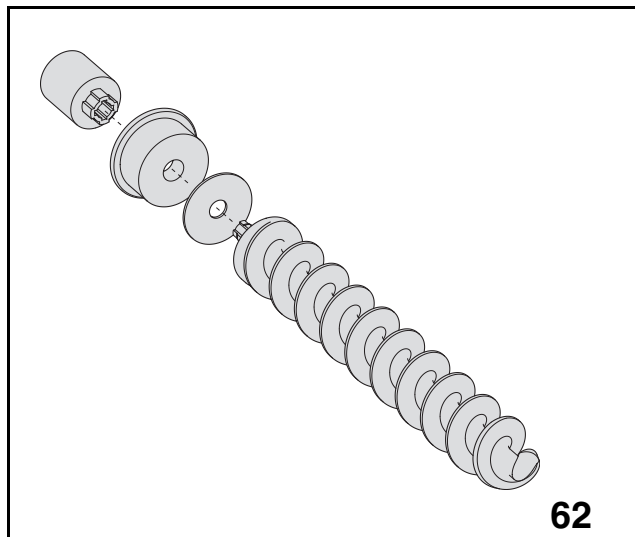
Cleaning the instant ingredient canisters

- Push the outlet tube upwards to close the outlet spout of the canister.
- Take the canister by the handle and pull it forwards (*fig. 60*) until end stops in guiding rail. Lift the canister upwards and pull forwards over the end stops. The lid is automatically triggered open.
- Remove the entire lid.

- Empty the ingredient of the canister into a plastic bag or a clean container.



- Unscrew locking nut on front side of canister and remove the outlet spout (*fig. 61*).
- Unscrew locking nut on back side of canister and remove the dosing system.



- Separate dosing system (*fig. 62*):
 - coupling
 - sealing bushing
 - auger
 - felt disc



All parts of the instant ingredient canisters are dishwasher-proof.

- Separate bottom part from canister part (*fig. 63*).
- Soak all components in hot water with cleaning agent, except felt disc.
- Rinse all items thoroughly in hot clean water
- Let components dry completely
- Reassemble instant ingredient canister in reverse order.

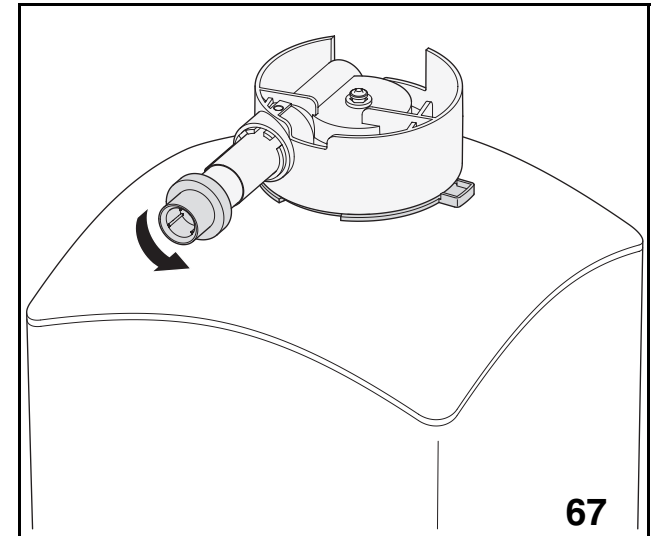
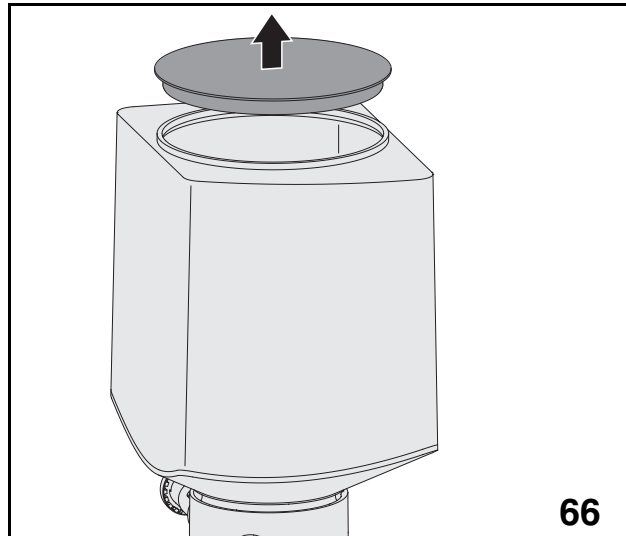
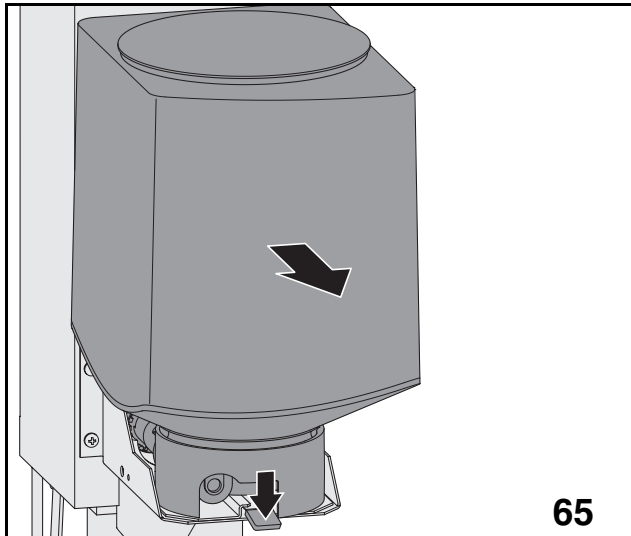
- Return canister to its former position (*fig. 64*).
- Fill canister with instant ingredient.
- Repeat procedure for all canisters.




Ensure that the outlet tube points the open end downwards.

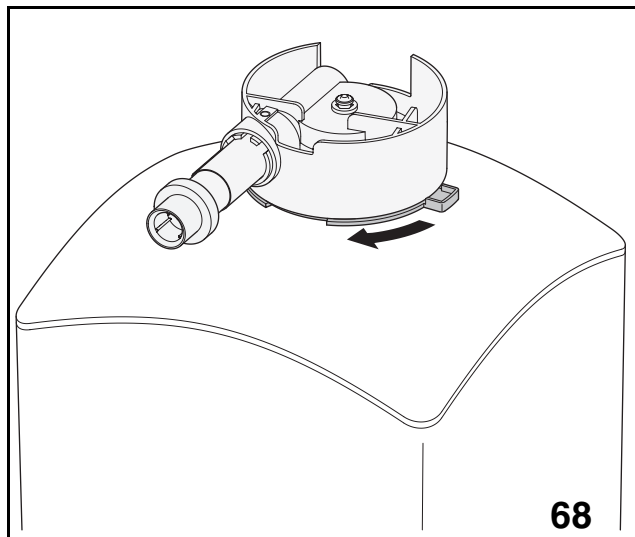
The canisters must always be returned to their original position.

Occasional routines



Cleaning the freshbrew ingredient canister

- Press the green end cap at base of canister console and remove the freshbrew ingredient canister by pulling it forwards (*fig. 65*)
 - Remove the lid and empty the canister into a plastic bag or a clean container (*fig. 66*).
 - Place the canister upside down on a table.
 - Loosen the remaining coffee by turning the coupling (*fig. 67*) and by knocking on the bottom of the dosing system.
 - Wipe the inside of the canister with a clean dry cloth.
-  Take care not to damage the mixing wire.
- The canister and canister parts are **not** dishwasher-proof.



- For a heavily soiled canister loosen the adjusting ring at the handle (*fig. 68*) and carefully remove the dosing system.

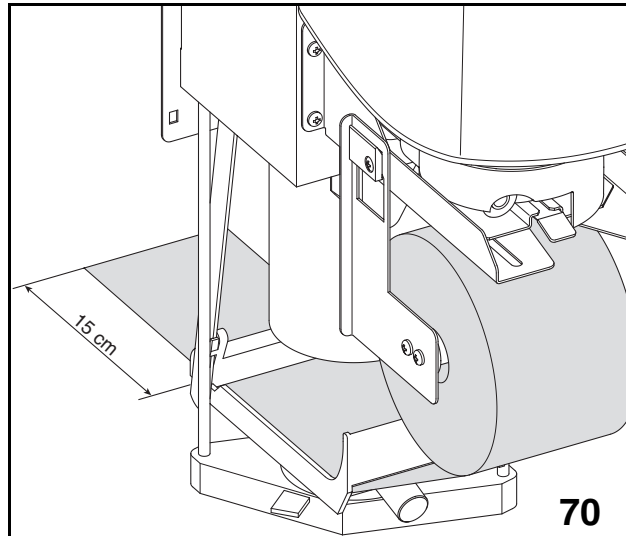
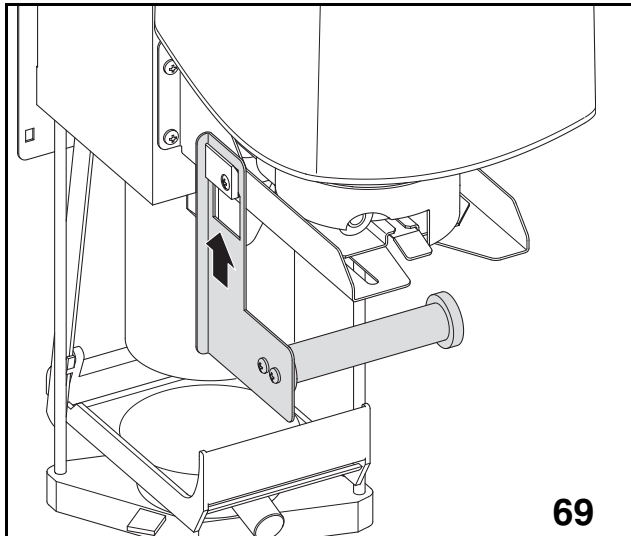


Take care not to damage the mixing wire.

Do not use a brush.

- Dry the canister.
- Assemble canister and dosing system.
- Fill canister with freshbrew ingredient and reinsert in machine.
- Clean the canister in hot water.

Occasional routines

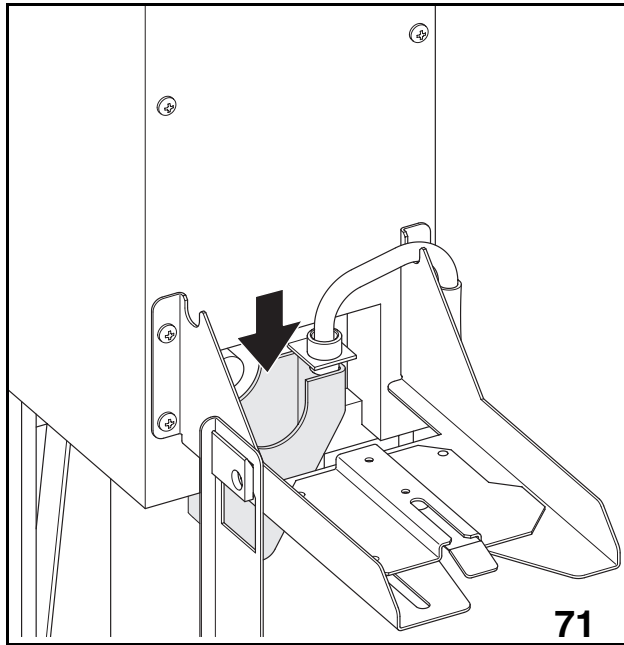


Replacing filter roll



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

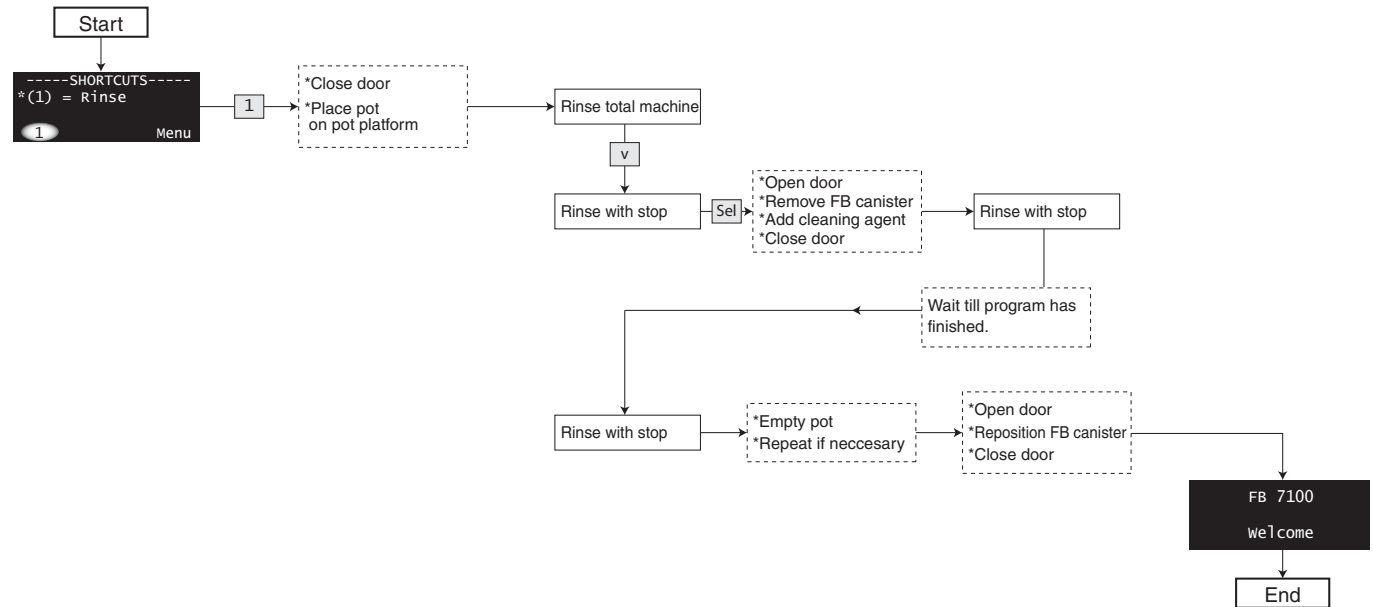
- Remove the filter roll holder (*fig. 69*) by lifting it and then taking it out sideways to the front.
- Remove the old roll core and position the new filter roll so that it feeds through as directed (*fig. 70*).
- Insert the paper in the filter plate holder, pull it through until approximately 15 centimetres of the filter paper sticks out from the back edge.
- Reposition the filter roll holder.



Rinsing the brewer (fig. 71)

The brewer rinse procedure automatically carries out four rinse cycles, one time with cleaning agent and three times with clean water.

- Have an empty pot (min. 1.5 l) and cleaning or descaling agent ready.
- Open the door, turn to the display and follow the diagram to perform a rinse of the brewer.



Do not stop the rinsing before the full four cycles are completed as otherwise residues of the cleaning or descaling agent may remain in the brewer and outlet hose.



There is a risk of scalding from hot water.



Should the procedure be interrupted, e.g if the door is accidentally opened too early, the brewer must either be disassembled and rinsed manually or a new rinse procedure must be performed.



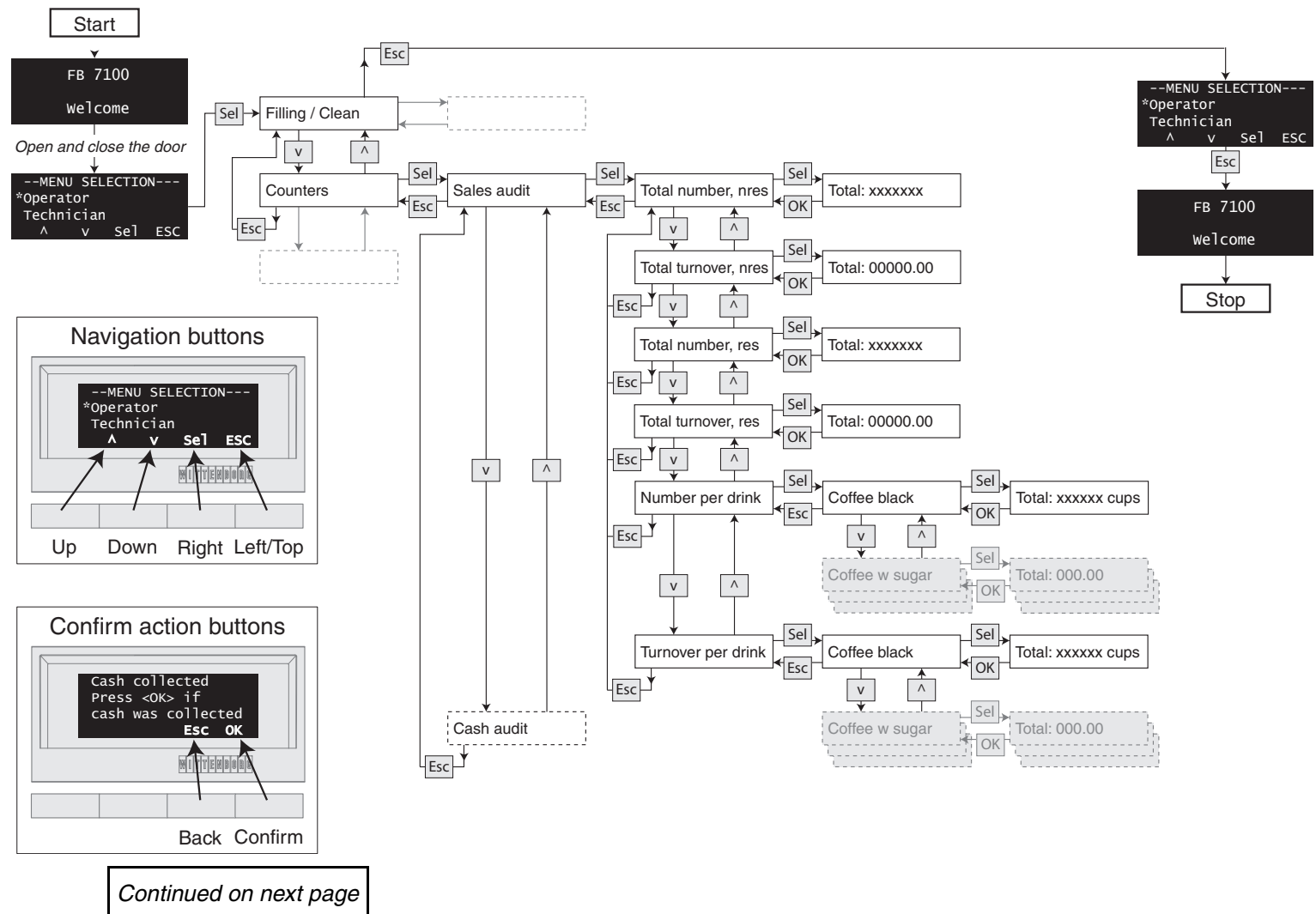
Most descaling agents are caustic. To protect your eyes and your skin follow the manufacturer's instructions

Calling and resetting counters

Follow this diagram to check and reset counters.

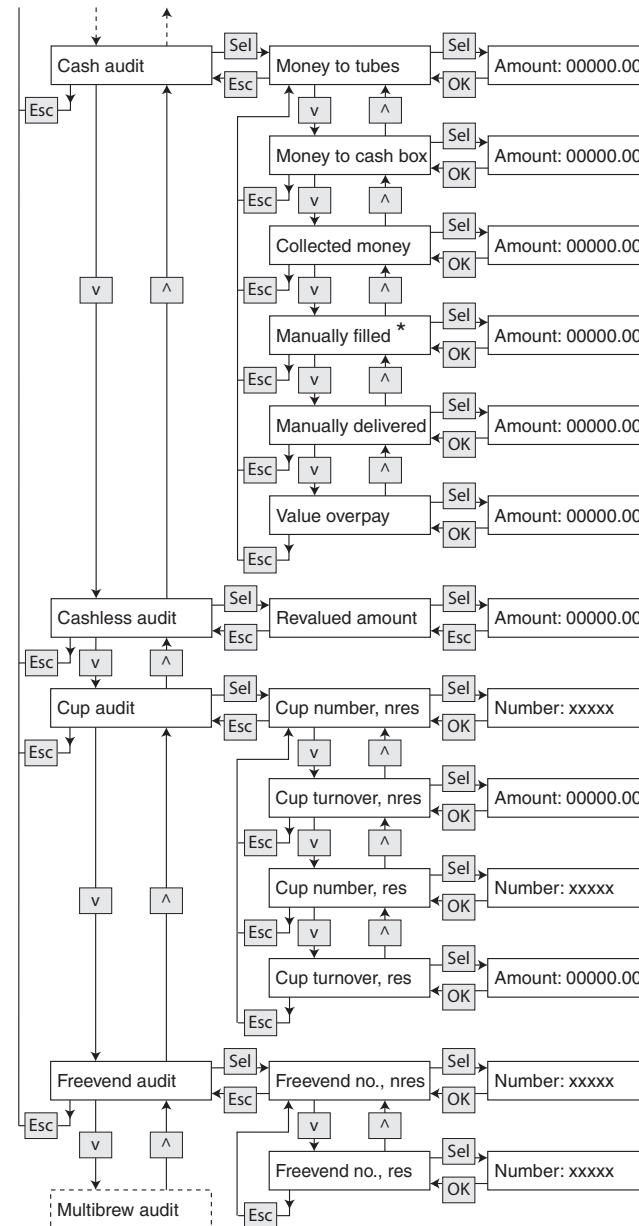
Sales turnover and numbers of items sold are available as totals as well as by individual types of drink selections.

Note: Only the “Cash audit” counters are reset by the reset function.



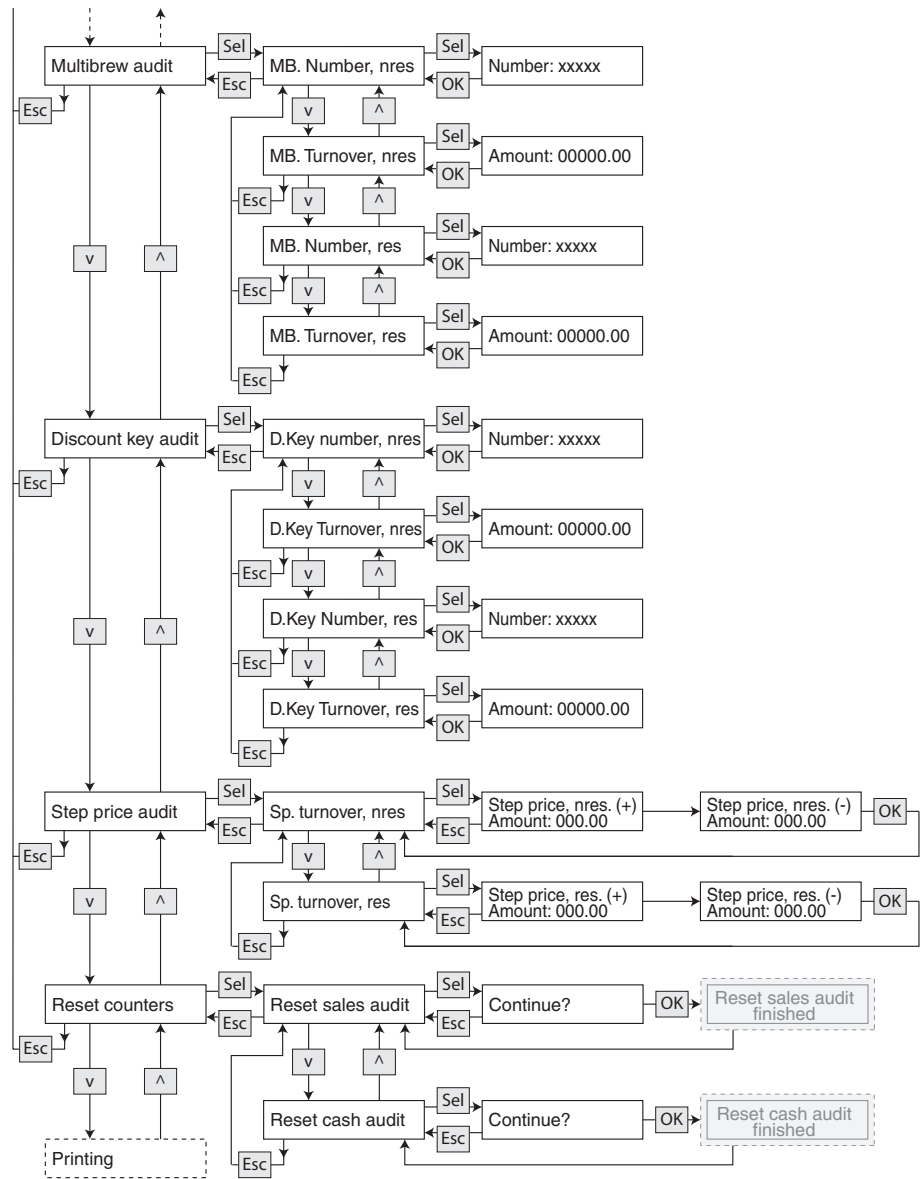
* Applicable only to BDV and MDB/ICP coin mechanisms.

Diagram continued



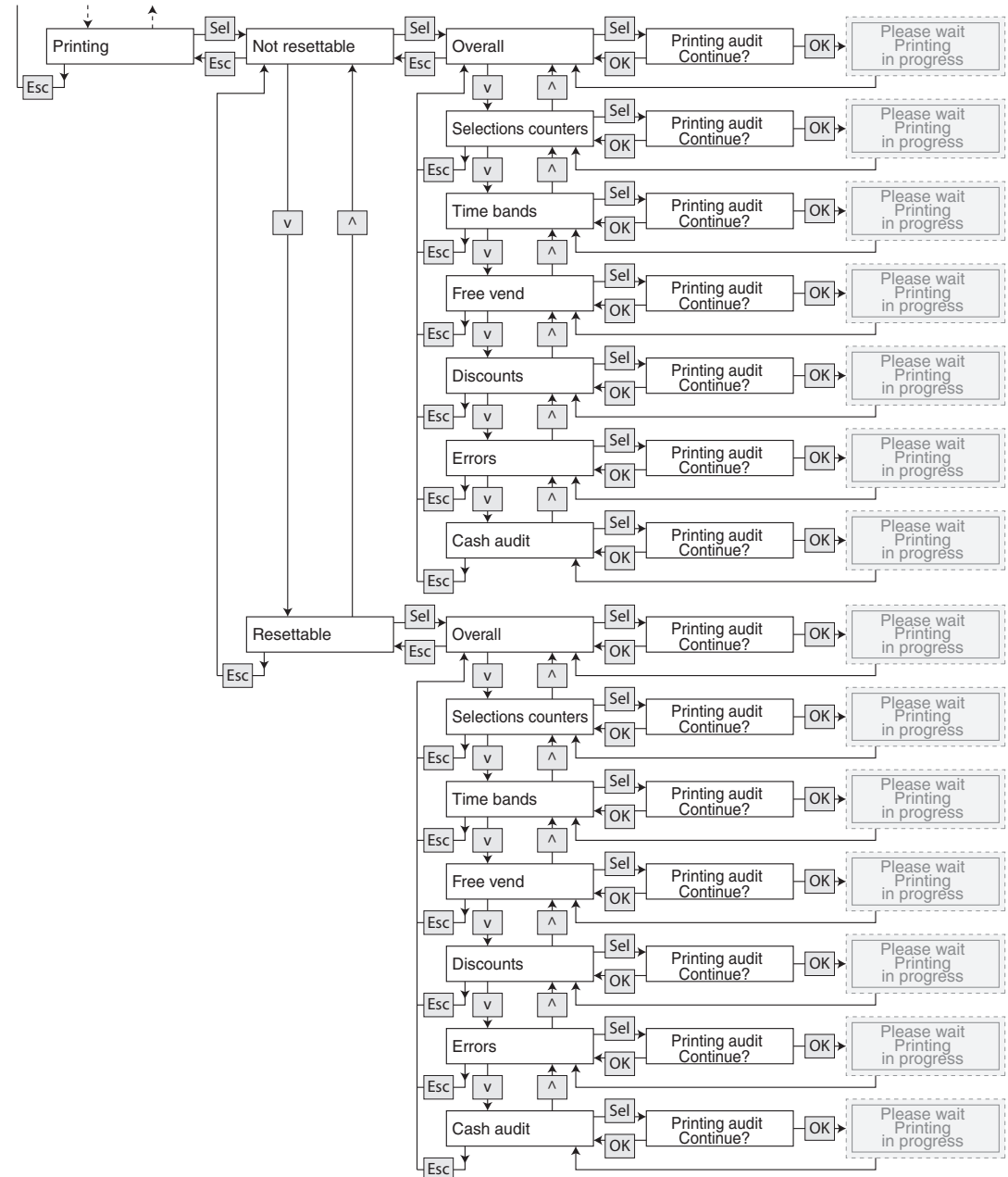
Continued on next page

Diagram continued

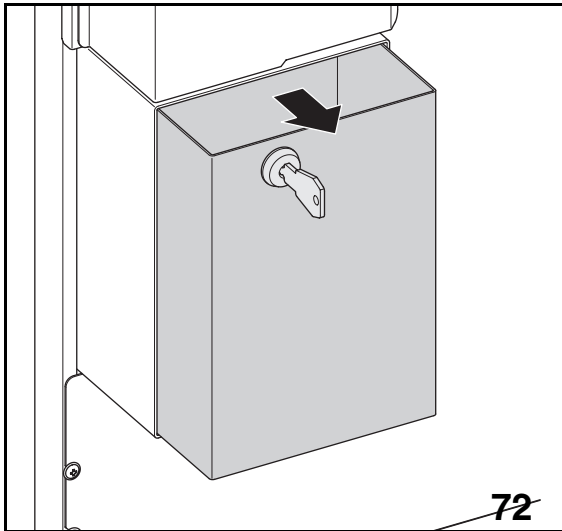


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Diagram continued



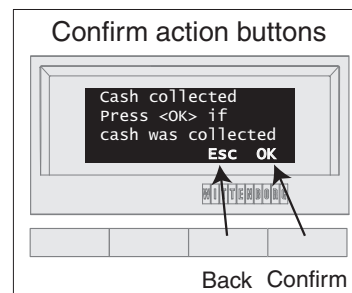
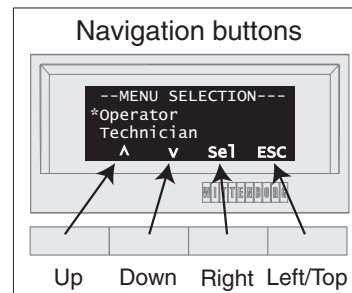
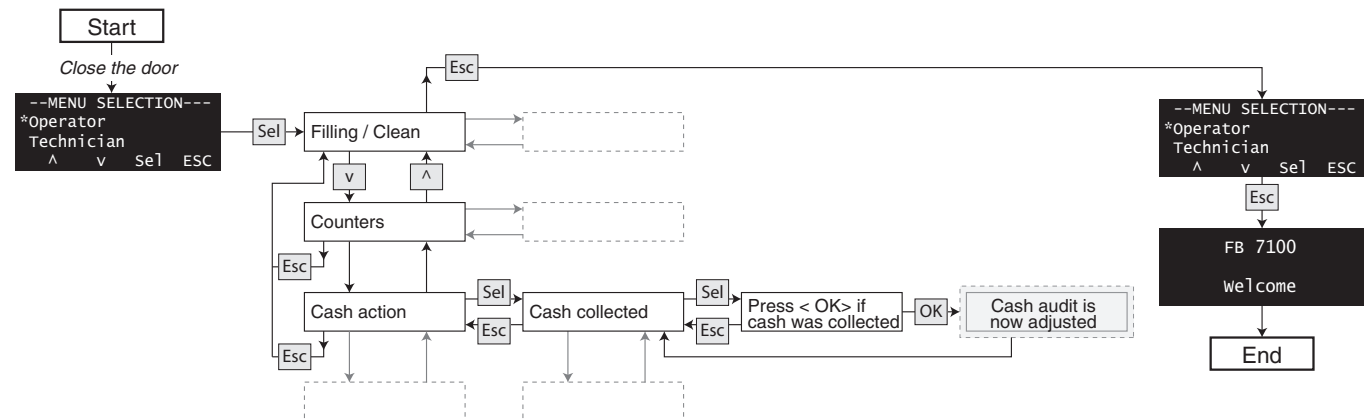
Additional routines



Emptying the cash box

- Open the door of the vending machine.
- Insert cash box key into keyhole and turn it clockwise.
- Pull out the cash box and empty it. (fig. 72)
- Turn to the display and follow the diagram to register the removed amount electronically.

The amount is registered under “Collected money” (See “Calling and resetting counters” on page 56).



Adding change manually

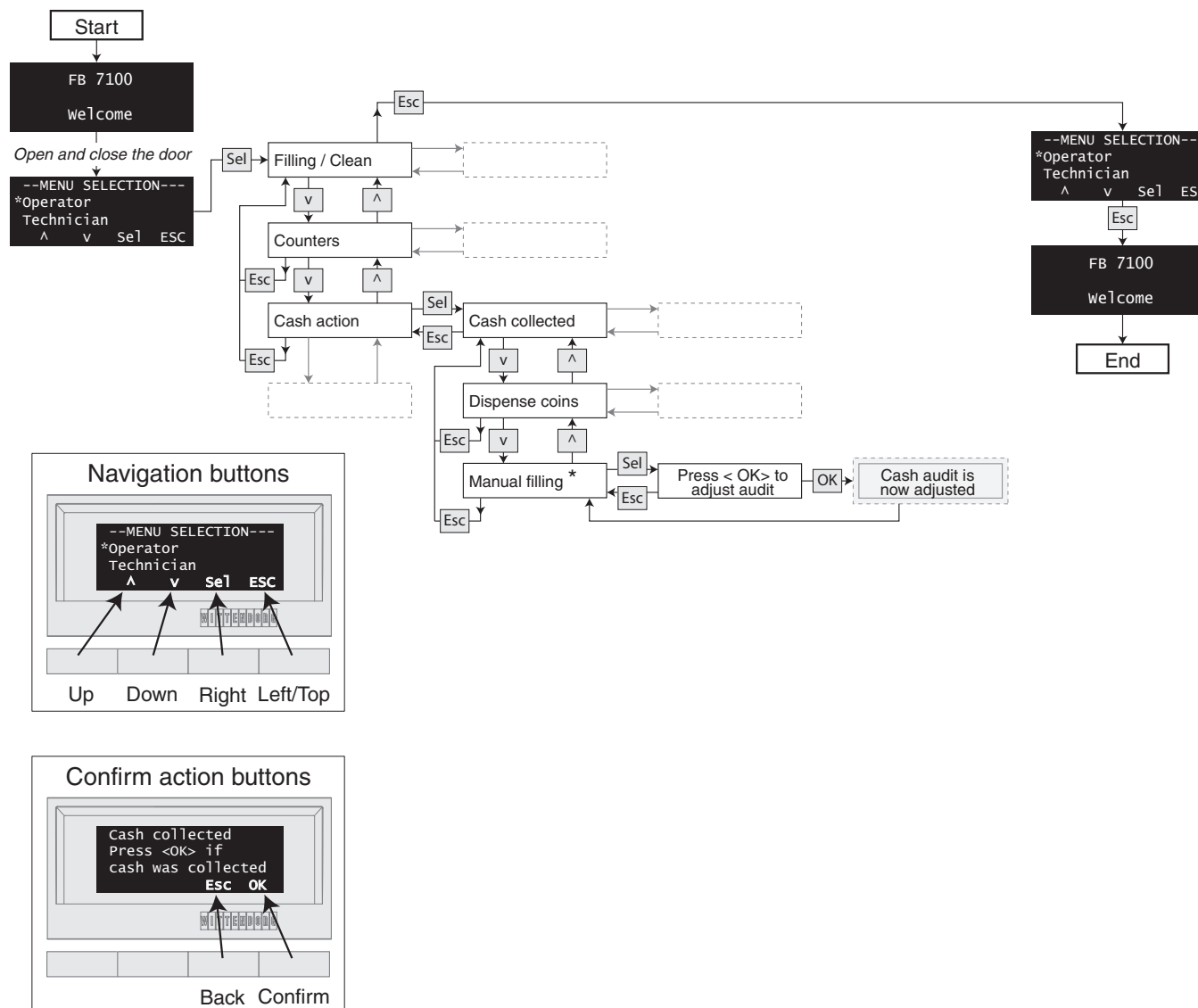


This procedure is applicable only to BDV and MDB/ICP coin mechanisms.

Insert the change amount into the machine through the coin slot.

Follow the diagram to electronically register the inserted amount as change.

The inserted amount is registered under “Manually filled” (See “Calling and resetting counters” on page 56)



* Applicable only to BDV and MDB/ICP coin mechanisms.

Additional routines

Setting automatic rinse periods

Follow this diagram to define one or more automatic rinse periods (up to seven periods.)

Setting a period means scheduling the machine to run an automatic rinse procedure at a specific time on a given day of the week. The time and days are set in separate functions.

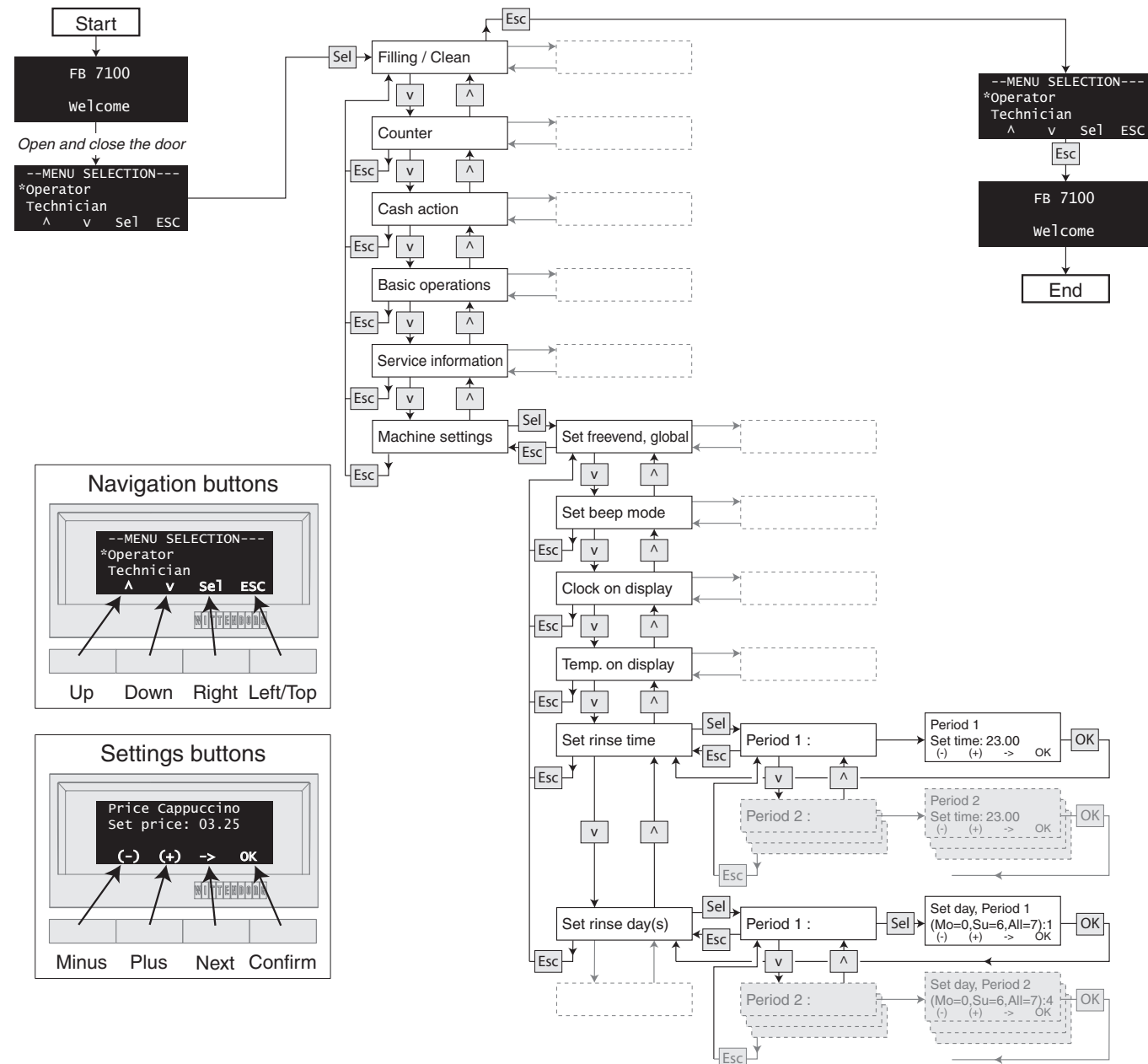
Example:

Period 1 is set to 23:00 hours in “Set rinse time” and to Tuesday (1) in “Set rinse day” (see diagram).

Period 2 is set to 23:00 hours in “Set rinse time” and to Friday (4) in “Set rinse day” (see diagram).

Result: Automatic rinse will be performed on Tuesdays and Fridays at 23:00 hours.

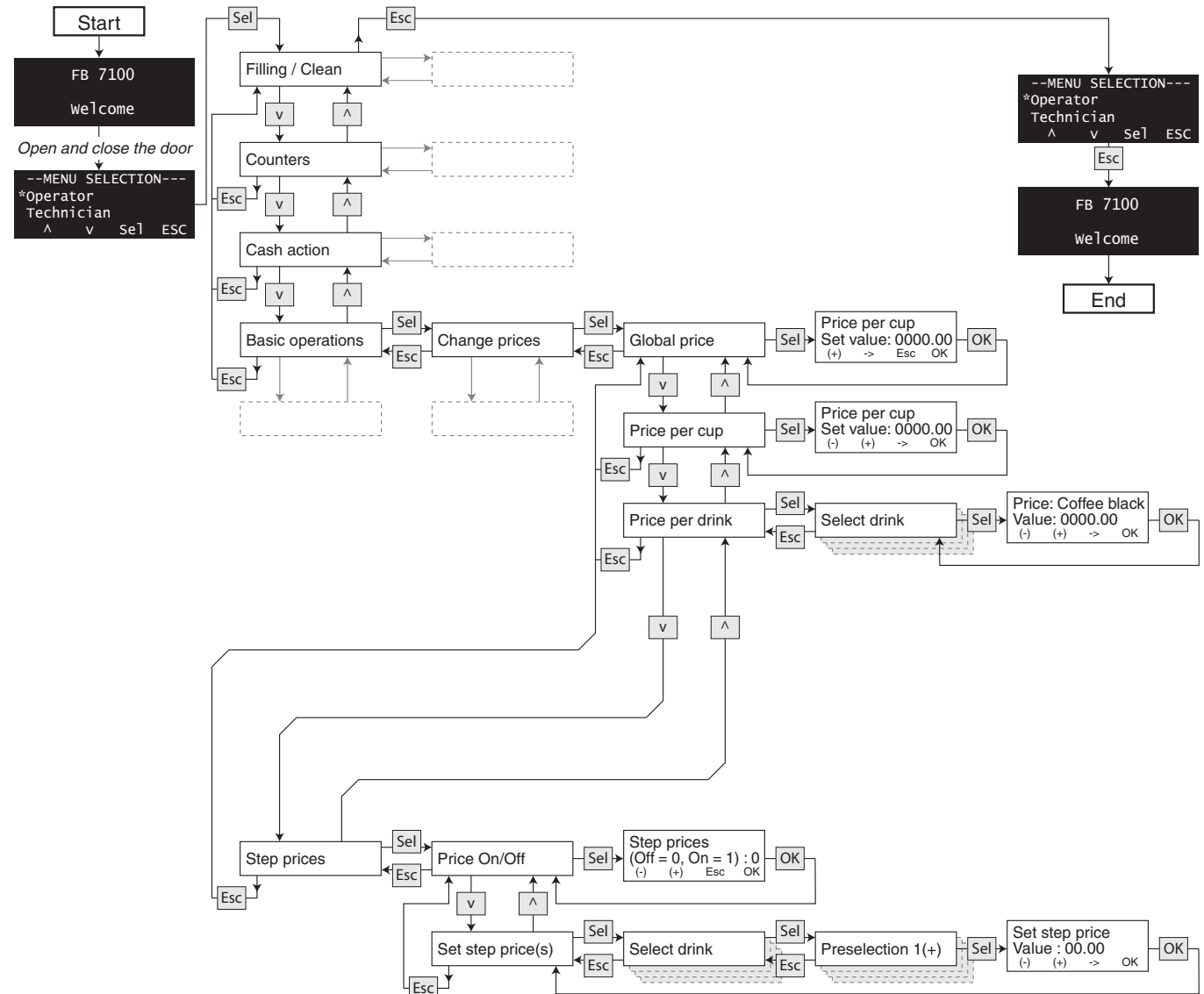
If rinsing is required every day of the week at the same time, it is enough to define one period and set days to “All” (7)



Changing prices

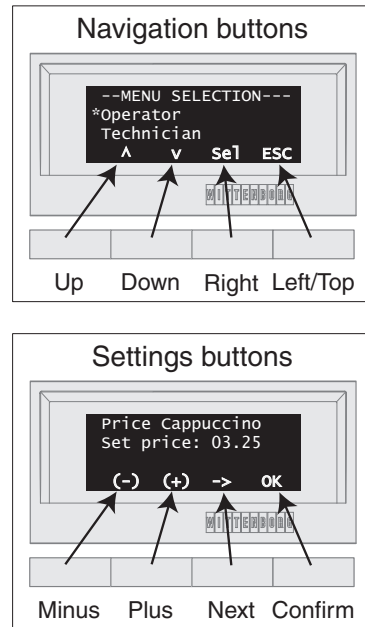
Follow this diagram to change the price of a drink.

See the section *Settings buttons* on page 17 for an explanation of how to use the Plus (+), Minus (-), Next (->) and Save (OK) buttons.



Setting of freevend and key discount

- turn freeend on or off
- or
- set or change key discount rates



Energy saving periods

- In order to save electric power when the machine is not in use, this function is used to lower the water temperature in the boiler and to switch off the door light.
- The function is enabled / disabled in 'Set state'.
- 7 energy saving periods can be programmed on a weekly basis: the week days are identified by progressive numbers: (0=Monday, 1=Tuesday, etc.) and all weekdays (ALL=7).
- The same time period cannot include days from different weeks (periods), i.e. a period cannot be set from Monday to Monday. A time for a period cannot have a 'start time' later than the 'end time', see Non Example 2.
- If the periods are set overlapping, the machine will be shut down as long as it is covered by one of these periods, cf. Example: Period 3.
- Two energy savings in a period require 2 period settings, cf. Example: Period 1 and 2
- The temperature during the energy saving period is set in 'set temperature'
- Switching off the door light during the energy saving mode is enabled / disabled in 'set doorlight'.
- Non Examples 1 and 2 describe settings which will give unintended results.

Example :

The vending machine is to run every day during the week from 07:00 till 22:00. The remaining time of the week and during the weekend the machine is set to energy saving. Three periods have to be set as follows:

Period 1			
Set start day	ALL=7	Set start time	00:00
Set end day	ALL=7	set end time	07:00
Result: The machine is 'shut down' from Midnight 00:00 till 07:00 in the morning the same day.			
Period 2			
Set start day	ALL=7	Set start time	22:00
Set end day	ALL=7	set end time	23:59
Result: The machine is 'shut down' every day from 22:00 till Midnight the same day.			
Period 3			
Set start day	Fr=4	Set start time	22:00
Set end day	Su=6	set end time	23:59
Result: The machine is shut down from Friday evening at 22:00 till Sunday evening at 23:59.			

Non Example 1:

Period 1			
Set start day	Mo=0	Set start time	22:00
Set end day	Fr=4	set end time	07:00
Result: The machine is 'shut down' Monday at 22:00 till Friday at 07:00 which was not the intention.			

Non Example 2:

Period 1			
Set start day	All=7	Set start time	22:00
Set end day	All=7	set end time	07:00
Result: The machine is not 'shut down' as the <i>end time</i> must not be earlier than the <i>start time</i> for the same 'day' or 'ALL'.			

Additional routines



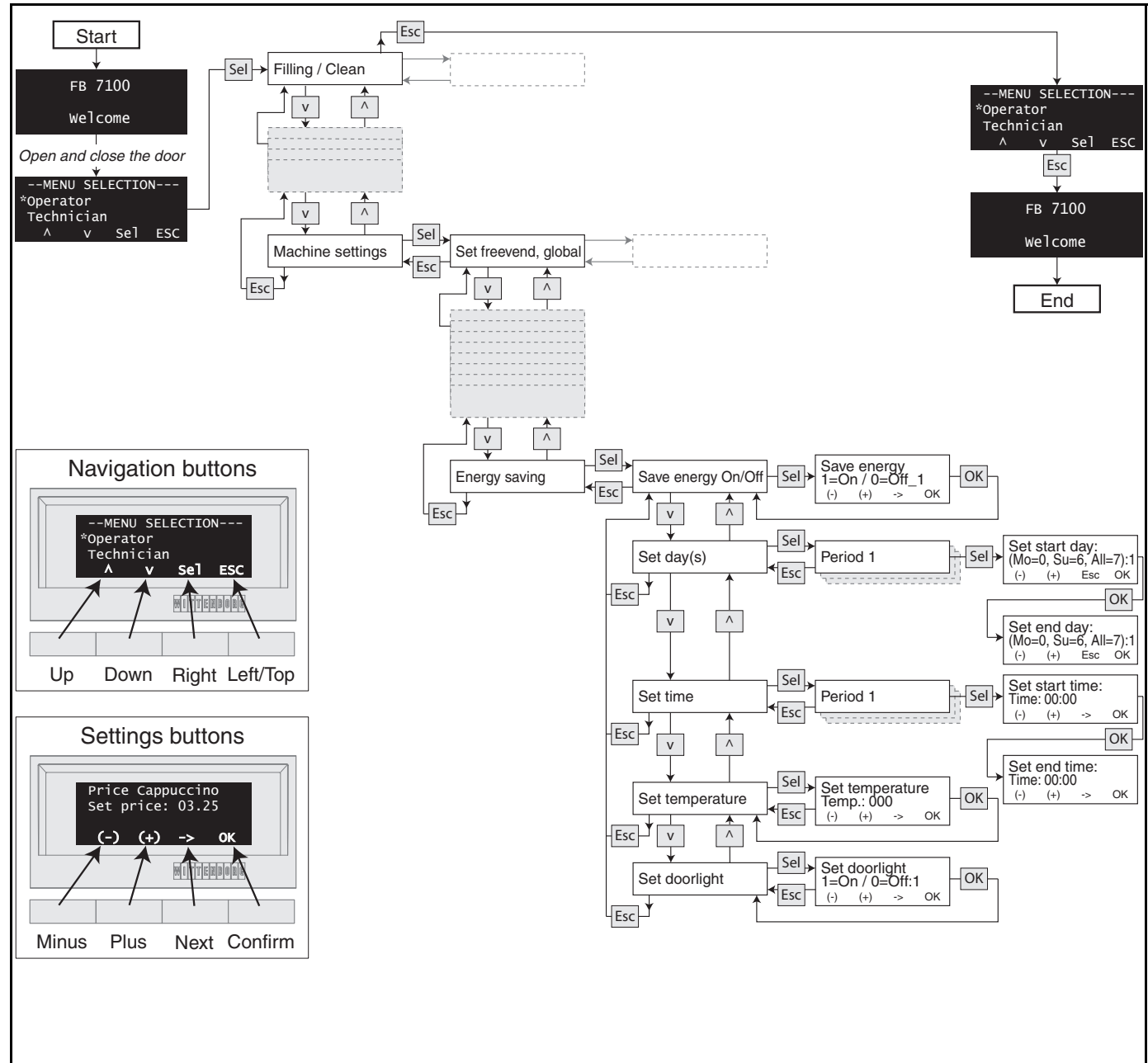
If a selection button is activated during an energy saving period, the machine leaves the energy saving mode and returns to the vend mode. As soon as the temperature in the water tank has reached the 'nominal temperature', the selected drink is dispensed.

When the selection buttons have been left untouched for more than 10 minutes after the last drinks dispensing, and an energy saving period is still in force, the machine returns to the energy saving mode.

Temperature should never be set below 65 °C.

Setting energy saving periods

- Follow this diagram to define one or more energy saving periods (up to seven periods).
- Setting a period means scheduling the machine to reduce the temperature for the boiler heating to the the temperature set in 'Set temperature' and to switch off the door light, if 'Set doorlight' is enabled.



Display messages and trouble shooting

Display messages

If the vending machine shows one of the below display messages, check the following points before calling for service.

Display message	Corrective action
Door open	<ul style="list-style-type: none">• Close door properly.
FB waste bucket full	<ul style="list-style-type: none">• Empty coffee waste bucket and wipe sensor dry.
Waste bucket full	<ul style="list-style-type: none">• Empty drip tray and wipe sensor dry.
Temperature low	<ul style="list-style-type: none">• Wait until the water is heated sufficiently (maximum 13 minutes).• Press the reset button of the dry boiling thermostat.*
Water tank overboil	<ul style="list-style-type: none">• Press the reset button of the overboil thermostat.*
Rinse in progress...	<ul style="list-style-type: none">• Wait until machine has finished automatic rinse function.
Please remove cup	<ul style="list-style-type: none">• Remove cup from cup carrier.
Please remove pot	<ul style="list-style-type: none">• Remove pot from pot platform.

*) If the dry boiling or the overboil thermostat triggers repeatedly, call for service.

Trouble shooting

If the vending machine does not function correctly and does not show a display message, check the following points before calling for service.

Fault	Corrective action
Machine is out of function	<ul style="list-style-type: none"> • Check the power supply cord and connect it correctly if required. Check fuses, replace as necessary • Check if the waste bucket or the coffee waste bucket is full. Empty, wipe and dry sensors. • Check if door is properly closed. Close as necessary
Machine dispenses drinks for free	<ul style="list-style-type: none"> • Check prices. Reset as necessary. • Switch off free vend.
Too little water or no water is dispensed Only water is being dispensed No ingredient	<ul style="list-style-type: none"> • Check that water pipes are not blocked. • Check if the ingredient canisters are empty. Refill as necessary. • Check if canister is properly located. Relocate as necessary. • Check if the mixing funnels are blocked-up. Clean and relocate.
Ingredients are moist and become lumpy in canisters	<ul style="list-style-type: none"> • Remove dust from grid at rear of machine with a vacuum cleaner from outside or take out fan and clean box from the inside of machine. • Check for blockage around mixing funnels. Remove and reinstall components as necessary.
Mixing system overflows because of blockage in mixing funnel or leak in mixing system	<ul style="list-style-type: none"> • Replace or clean block part/s. Check if they are positioned correctly. • Check if the sealing ring is missing at mixing funnel.

Display messages and trouble shooting

Fault	Corrective action
The drip tray or the coffee waste bucket is full with water or waste	<ul style="list-style-type: none">• Empty
Liquid escaping from machine	<ul style="list-style-type: none">• Check if buckets, canisters, mixing funnels or dispensing hoses are correctly installed. Install correctly as necessary.
Machine does not shut down when bucket or drip tray is full.	<ul style="list-style-type: none">• Check if sensors for bucket or drip tray are soiled or if sensor is not seated correctly in bucket. Clean or reposition as necessary.
Freshbrewer unit is malfunctioning.	<ul style="list-style-type: none">• Reassemble freshbrewer unit correctly.
Quantity of drink is inadequate or dispensing hose has a kink	<ul style="list-style-type: none">• Replace or clean clogged components. Install hose of correct length.
Coins have difficulties being accepted. It is usually due to impurities in the coin track of the validator of the coin mechanism.	<ul style="list-style-type: none">• Possibly open the validator coin track and clean with a damp cloth. Please confer with suppliers manual.
Drinks are cold	<ul style="list-style-type: none">• Check if power has been interrupted recently or check if thermostat is defective.
Flavour of drink is not satisfactory	<ul style="list-style-type: none">• Use correct ingredients.• Check if components are clean. Replace and rinse thoroughly as necessary.