

Technical manual Nova Bean to Cup Liquid





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1 INTRODUCTION

1.1 This user manual

Congratulations on the purchase of your Nova Bean to Cup Liquid. This machine has been developed and produced using state-of-the-art technology. This, combined with the ISO 9001 certification that applies to all our products, means you can rest assured that you are the owner of a high quality product.

This manual is intended for authorised and trained users and contains all the information required to operate the machine safely and to carry out regular maintenance and cleaning tasks. Read the relevant user manual carefully before using your machine.



Ensure that the user manual is kept with the machine to ensure that all procedures are carried out correctly.



Figure 1-1

1.2 Pictograms and safety symbols on the machine

The following pictograms are used on the Nova Bean to Cup Liquid:

- Electrical hazard



Figure 1-2

- Risk of fingers being trapped



Figure 1-3

1.3 Pictograms and safety symbols in the manual

These pictograms are used in the manual:



General warning or caution. Damage to the machine or personal injury can occur.



Electrical hazard



Burning hazard



Remarks, suggestions and advice

1.4 Conventions and definitions

Throughout the document, reference is made to the "left", "right", "front" and "rear" of the machine. Where a component or specific part of the machine is referred to, this is described from the user's viewpoint facing the selection panel.

1.5 Service and technical support

Please contact your dealer for further information on settings, maintenance and/or repair activities that are not dealt with in this manual. Your dealer will be pleased to assist you.

If you contact your dealer, always have the following information at hand:

- model number
- serial number
- software versions

1.6 Machine identification on the exterior of the machine

1. Model number
2. Voltage
3. Frequency
4. Power rating
5. Serial number
6. Water pressure

The identification plate is on the rear of the machine.

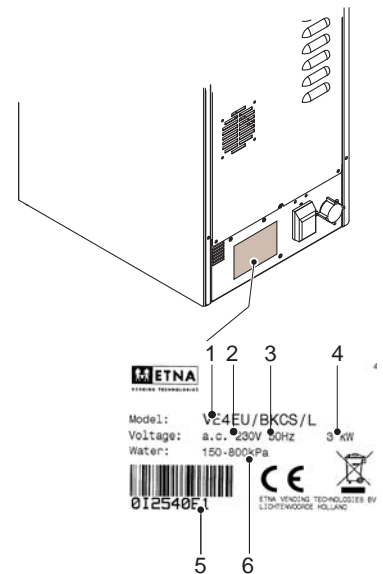


Figure 1-4

1.7 Machine identification inside the machine

1. Model number
2. Voltage
3. Frequency
4. Power rating
5. Serial number
6. Water pressure

The identification plate is on the inside on the right-hand frame plate.

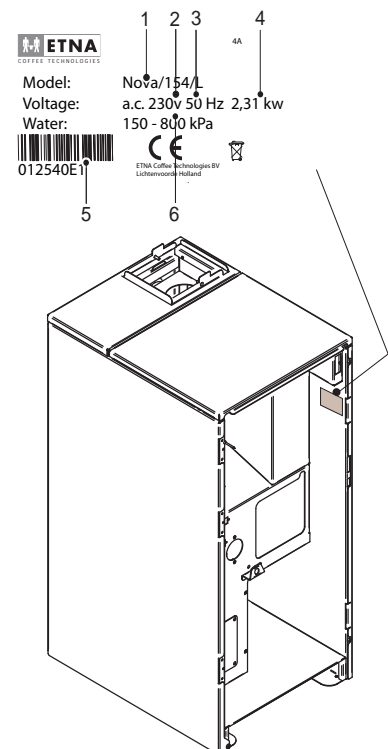


Figure 1-5

1.8 Used machines and the environment



Ask your local authority for information on ways to recycle materials safely and in an environmentally friendly manner.



Ask your local authority for information on ways to dispose of materials safely and in an environmentally friendly manner.

1.9 General safety instructions and restrictions

The manufacturer does not accept liability for any damage caused by not (strictly) observing the safety instructions or by carelessness during use and cleaning of the machine and any accessories.

Depending on the specific operating conditions or accessories used, additional safety instructions may apply. Please contact your dealer immediately if you encounter any hazards when using the machine.



The user of the machine is fully responsible at all times for observing locally applicable safety regulations and guidelines.

1.9.1 Operating and cleaning instructions

- All those using and/or cleaning the machine must be familiar with and follow the operating and cleaning instructions closely. The owner must ensure that personnel are informed of the operating and cleaning instructions contained in this manual and that they comply with these regulations and instructions.
- Never change the order in which activities are carried out.
- Always keep the operating and cleaning instructions in the vicinity of the machine.

1.9.2 Icons and instructions

The icons, symbols and instructions attached to the machine form part of the safety instructions. Therefore, they must not be covered or removed. They must be kept within reach and be clearly legible throughout the entire service life of the machine.

- If icons, symbols or instructions are illegible, ring your supplier straightaway to rectify this.

1.9.3 Users

The daily, weekly and monthly maintenance and cleaning activities may only be carried out by users who have received training from the installer or owner of the machine. These individuals will be familiar with the potential risks of opening the machine. Staff who are still in training must be supervised when carrying out cleaning activities. This must be under the responsibility of an authorised user.

1.9.4 Technical specifications

- The technical specifications may not be modified.

1.9.5 Modifications

- Modifications may not be made to the machine (or parts of the machine).

1.9.6 Intended use

The intended use¹ of the machine is designed exclusively for dispensing beverages as indicated on the selection panel. Use of the machine for any other purpose falls outside the terms of conditions of use. The manufacturer does not accept responsibility for any damage or injury that may result from improper use.

The machine meets current standards and directives.

- The machine may only be used in perfect technical condition for the purposes indicated above.

1.10 Available documentation

The following documentation is available for this machine:

- User manual
- Technical manual
- Parts book

1. "Intended use" as meant in EN 292-1 is the application for which this technical product has been made, as specified by the manufacturer – including references in sales brochures. In case of doubt, use can be derived from the construction, model and functions of the technical product the assumed normal use. Use of the product within the confines of the intended use also includes complying with the instructions in the user manual.

2 DESCRIPTION OF MACHINE

2.1 General description

This machine prepares and dispenses various hot drinks.

The drinks are dispensed in the cups intended for this purpose and that are placed on the machine cup stand. The cups must be placed on the cup stand manually.

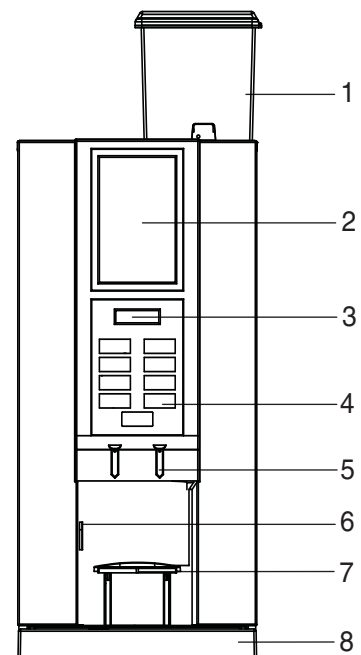
The display on the machine indicates that:

- a drink can be selected
- a drink is being prepared
- a fault has occurred.

2.2 Main components

2.2.1 Front view

1. Bean container
2. Window (optional: photo frame)
3. Display
4. Selection panel
5. LEDs
6. Cup sensor
7. Cup stand (two-sided)
8. Drip tray



2.2.2 Interior view

1. Door opening switch
2. ON/OFF switch
3. Brewer (brewing group)
4. Dispensing pipes
5. Waste bucket
6. Pump
7. Dispensing holder
8. Mixer components
9. Dispenser nozzle
10. Liquid container
11. Ingredient containers

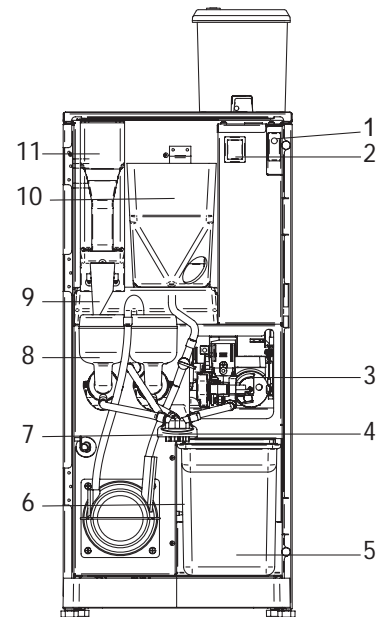


Figure 2-1 Bean to cup liquid

2.3 Container lay-out

The different types are fitted with the following containers.

Machine	Bean container	Instant coffee container	Ingredient bag support
Bean to cup 3	1	2	-
Bean to cup 4	1	3	-
Bean to cup liquid	1	1	1

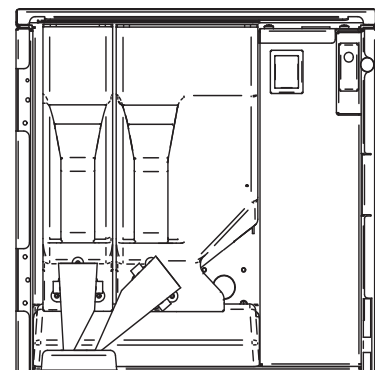


Figure 2-2 Bean to cup 3

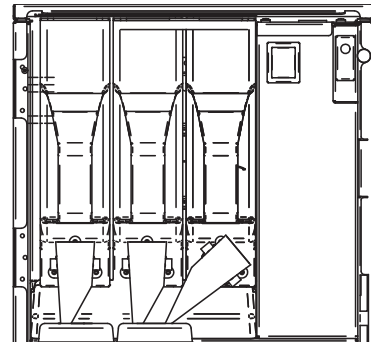


Figure 2-3 Bean to cup 4

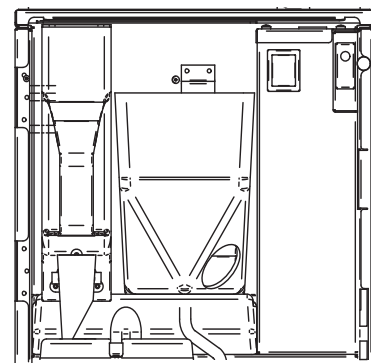


Figure 2-4 Bean to cup liquid

2.4 Principle of operation



LEDs above the cup stand indicate where a cup must be placed; on the left or right on the cup stand.

After a selection is made, the machine mixes water with the ingredients from the containers to dispense the drink.

- The water is supplied via the boiler (heated).
- Instant products are dosed from the containers into the mixer and/or the ground coffee is dosed from the grinder into the brewing group.
- The water and the ingredients are mixed in the mixer or compressed by the brewing group.
- The drink is dispensed through the dispensing pipe into the cup placed on the cup stand.
- The cup stand has two sides; water on the left, drinks on the right.

2.5 Switching ON and OFF

- 1 pressed in = ON (switch lights up)

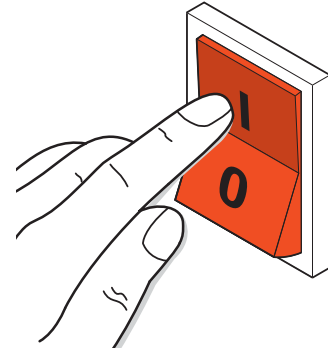


Figure 2-5

- 0 pressed in = OFF

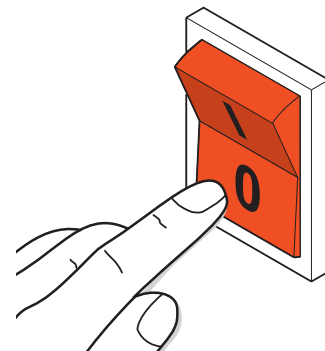


Figure 2-6

2.6 Door detection switch

- Pos.1- normal: door is open
- Pos.2- pressed in: door is closed
- Pos.3- pulled out: machine operational for repair and testing purposes.



The machine contains rotating and moving parts. Ensure that your fingers do not become trapped when work is carried out.

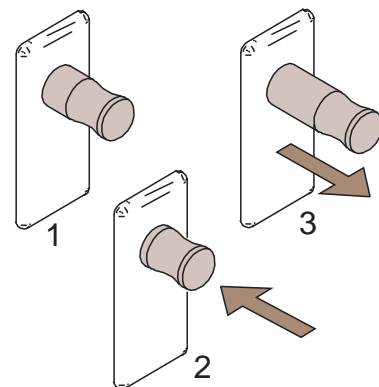


Figure 2-7

2.7 Operating the machine

Although the standard model does not include a payment mechanism, the option exists for the machine to be equipped with a coin mechanism (for instructions on how to install the payment mechanism, see the operating instructions included with the mechanism).

2.7.1 Stand by

Stand by mode is indicated by the following:

- The buttons are not illuminated.
- The illumination panel or photo frame (optional) is on.
- The Shift button flashes green.

Press any button to bring the machine out of stand by.

3 USE

3.1 Safety instructions - use

- Inspect the machine before use and check for any damage and defects.
Please contact your supplier if there is any damage to the machine.
- Please keep all packaging out of reach of children.
- Place the machine in a horizontal position.
- Place the machine somewhere where it can be supervised by trained personnel.
- The machine is not intended for use by people (including children) with a physical, mental or sensory handicap, or with insufficient knowledge and experience to use it without supervision or instruction, until they are monitored by someone who is responsible for their safety.
- Children must be supervised to ensure that they do not play with the machine.
- Protect the machine from water and/or moisture.
- Do not clean the machine using a high pressure water jet.
- Keep the buttons free from dirt and grease, clean them regularly.
- Only use the machine if the lids on the top are closed and all plating has been fitted.
- Never use sharp objects to operate the buttons.
- Only use the cups or jugs that are available at the counter.
- Ensure that the wall socket (with earth connection) and the water connection point remain accessible during use. In case of emergency, the mains plug can then be removed quickly and the water supply can be shut off immediately.
- If the machine is not going to be used for some time, remove the containers, clean the hoses, clean the machine manually, thoroughly clean the mixing chamber, empty the boiler, shut off the water supply and remove the plug from the wall socket. There must not be any water in the machine and components.
- To use the machine after a long period of non-use, first clean the mixing chamber and brewing group thoroughly. Replace the mixing chamber and run the cleaning programme at least three times and prime all the containers before operating the machine.



The drink dispensed by the machine is very hot. You may cause burns in the event of spillage.



Remove the plug from the wall socket in the event of any danger. Do not pull the plug from the wall socket using the cable.



Disregarding the above instructions can jeopardise the safe use of the machine.

3.2 Filling containers

The containers hold the ingredients required to prepare drinks.



Ensure that your fingers do not become trapped when filling the containers.

3.2.1 Filling containers



Make sure that the ingredients are placed in the correct container.



See the label on the inside of the door for an overview of the maintenance functions.

1. Open the door of the machine.
2. Open the upper lid.
3. Lift the container to be filled off the holder and pull it towards you.
4. Remove the lid from the container and fill with the required ingredient.
5. Close the lid of the container.
6. Replace the container in the same place in the machine. Ensure that the container's coupling falls into the gear.
7. Repeat this procedure for the other ingredient containers.
8. Close the upper lid.
9. Place a cup under the dispensing nozzle.
10. Pull out the door detection switch (Pos. 3).
11. On the service panel (inside of the door), press *1 Clean valve + Rinse mixer; the mixer cup is rinsed with water.
12. On the service panel, press * 7 Reset counter ingredient 1.
13. On the service panel, press * 8 Reset counter ingredient 2.
14. On the service panel, press * 9 Reset counter ingredient 3.
15. Close the machine door.

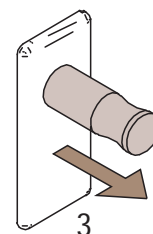


Figure 3-1

3.2.2 Filling the bean hopper

1. Remove the bean container lid using the key.
2. Fill the bean container with beans. The bean container has a capacity of around 1 kg (2.2 lbs).
3. Close the bean container and lock it using the key.
4. Remove the key.

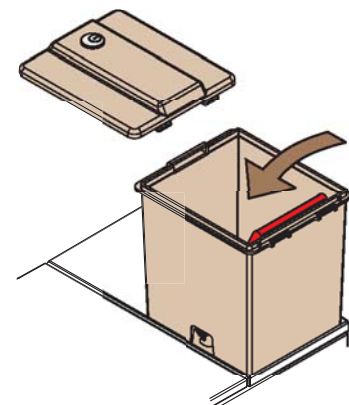


Figure 3-2

3.3 Placing an ingredient bag

The liquid concentrate used to prepare drinks can be packaged in two ways:

- **Bag-in-Box (BIB):** in this case, the liquid concentrate comes in a bag contained in a cardboard box.
- **Ingredient bag:** in this case, the liquid concentrate comes in a bag that is placed in the liquid container.

3.3.1 Place a new ingredient bag (first use)



Risk of leakage: during subsequent operations, concentrate may come out of the ingredient bag, tap or hoses.



Do not remove the pump hose from the pump.



For BIB: The method used to insert packaged ingredient bags (BIB) is identical to the procedure described here. The BIB is packaged in the cardboard box; the ingredient bag must be inserted in the liquid container.

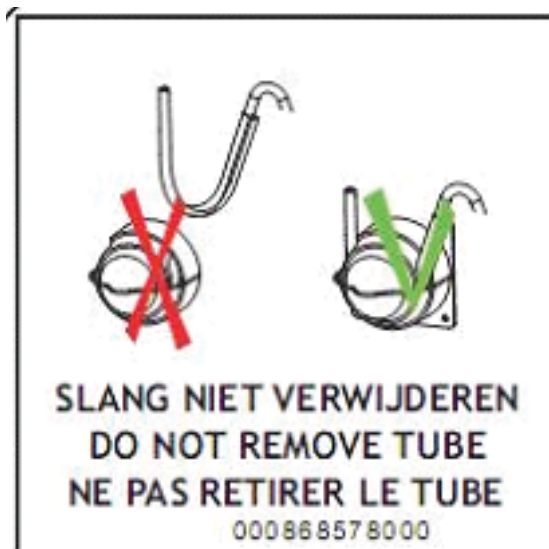


Figure 3-3

1. Open the door of the machine.
2. Open the upper lid.
3. Adjust the pump hose to the correct length, ± 30 cm (see figure 3-4).
Do not make it too short!

4. Adjust the hose of the new ingredient bag to the correct length.
The length depends on the pump hose.
5. Insert the valve into the hose of the new ingredient bag.
6. Close the valve (*see figure 3-5*).

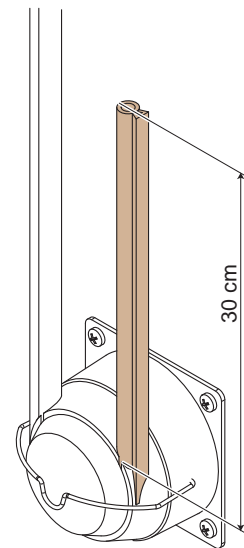


Figure 3-4

7. Place the new ingredient bag in the liquid container.
8. Place the liquid container with the ingredient bag in the machine.
9. Position the pump hose on the valve.
10. Open the valve between the pump and the ingredient bag (*see figure 3-6*).

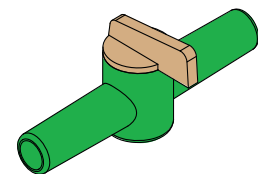


Figure 3-5 Closed

11. Place a jug under the dispensing nozzle.
12. Take the lid off the mixer cup and place it on the jug.
The pump hose is attached to the lid.
13. Pull out the door detection switch (Pos. 3).
14. On the service panel (inside of the door), press ?4 Fill pump. Keep pressing until a constant flow of product is released.
15. Set the door detection switch to the normal position (Pos. 1).
16. Put the lid back on the mixer cup.
17. On the service panel, press ?1 Clean valve + Rinse mixer; the mixer cup is rinsed with water.
18. Close the lid and the door of the machine.

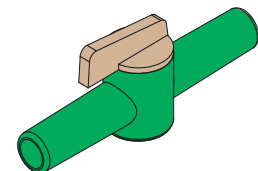


Figure 3-6 Open

3.3.2 Place a new ingredient bag



Risk of leakage: during subsequent operations, concentrate may come out of the ingredient bag, tap or hoses.



Do not remove the pump hose from the pump.



For BIB: The method used to insert packaged ingredient bags (BIB) is identical to the procedure described here. The BIB is packaged in the cardboard box; the ingredient bag must be inserted in the liquid container.

1. Open the door of the machine.
2. Open the upper lid.
3. Close the valve.
4. Disconnect the pump hose from the valve.
5. Remove the liquid container with the ingredient bag from the machine.
6. Take the ingredient bag out of the liquid container.
7. Disconnect the valve from the hose of the ingredient bag.
8. Open and clean the valve.

9. Adjust the hose of the new ingredient bag to the correct length.
The length depends on the pump hose.
10. Push the valve into the hose of the new ingredient bag.
11. Close the valve.
12. Place the new ingredient bag in the liquid container.
13. Place the liquid container with the ingredient bag in the machine.
14. Position the pump hose on the valve.
15. Open the valve between the pump and the ingredient bag.
16. Place a jug (of at least 0.5l) under the dispensing nozzle.
17. On the service panel (inside of the door), press ?4 Fill pump; the pump hose is filled.
18. On the service panel, press ?1 Clean valve + Rinse mixer; the mixer cup is rinsed with water.
19. Close the lid and the door of the machine.

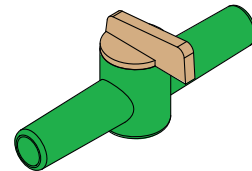


Figure 3-7 Closed

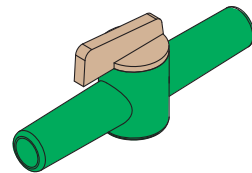


Figure 3-8 Open

3.4 Digital photo frame



Please refer to the manuals enclosed for the correct use of the remote control and the digital photo frame.

The USB connection can be seen on the inside of the door on the door plate when the door is opened.

Operating the photo frame



The photo display is operated with the remote control.

The photos can be stored on a memory card (SD, MS, MMC, XD). The photos must be in JPG format.

- 1 Select Photo in the main menu and press Enter or OK.

The photo browser is shown.

- 2 Select the directory with the photos that are to be shown.
- 3 Press Enter or OK.
- 4 The photos are shown automatically.

Changing photos

- 1 Select Edit in the main menu and press Enter or OK.

- 2 The Edit menu is shown.

Select from Copy, Delete or Edit

- 3 Press the arrow to scroll through the menu.

Press Enter or OK to confirm your selection.

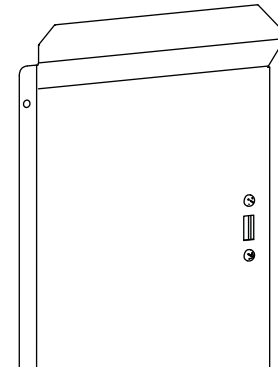


Figure 3-9

4 MAINTENANCE AND CLEANING

Accurate maintenance and in particular careful cleaning are basic conditions for good product quality and smooth operation.

This machine has been developed to enable the owner or licensee to thoroughly clean and maintain it in a relatively short time and at low cost.



First read par. 4.1 before carrying out any maintenance activities on the machine. The maintenance activities described may only be carried out by trained, authorised users under the supervision of trained personnel or the owner.

4.1 Safety instructions - maintenance and cleaning

- See also par. 3.1.
- Carry out the procedures taking into account the hygiene regulations.
- Repairs may only be carried out on the machine by trained service engineers.
- Maintenance work on the electrical system may only be carried out by trained service engineers with a background in electrical engineering.



Warning with respect to burns: parts within the machine can be very hot.

- After cleaning or maintenance activities, the machine must not be used until all the removed parts have been correctly reinstalled.

Then inspect and check the inside of the machine:

- The dispenser holder must be aimed at the middle of the cup.
- The ingredient containers must be correctly placed.
- The mixer components must be in the correct position.
The waste container must be in the correct position.
- The brewer group must be in the correct position.

4.2 Perishables



The products have been supplied with a use by date. Therefore, the following should be taken into account:

- Comply with the use by date printed on the product packaging.
- Do not use products that are nearing their use by date.
- Replace products whose use by date is past.
- Do not use opened products for longer than the indicated use by date.
- Replace the products when the use by date is up.
- Only use the cleaning agents referred to in the cleaning schedule and follow the instructions on the packaging. See also par. 4.4.

4.3 Service panel

The service panel can be seen when the door is opened. From the service panel you can carry out the following maintenance tasks:

Action	Procedure
* followed by 1	Clean valve + rinse mixers
* followed by 2	Rinse brewer group
* followed by 3	Clean brewer group
* followed by 4	Fill pump (Only models with liquid chocolate)
* followed by 5	Rinse brewer group + rinse mixer + reset waste container
* followed by 6	Reset waste container
* followed by 7	Reset ingredient counter 1
* followed by 8	Reset ingredient counter 2
* followed by 9	Reset ingredient counter 3
* followed by 0	Free / paid dispensing
* followed by #1	Menu BEVERAGE COUNTER
* followed by #3	Reset message BREWER MAINTENANCE Reset message CHANGE WATER FILTER Reset message DESCALING

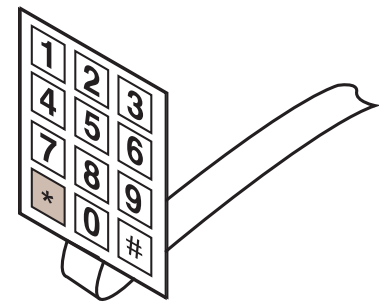


Figure 4-1

4.4 Maintenance

The quality of this product is only guaranteed if the machine receives thorough maintenance on a regular basis. A few vital machine parts are very sensitive to dirt. Use of this machine requires both daily and weekly maintenance.

4.5 Daily maintenance

The following activities should be carried out every day:

- Check the contents of the ingredient containers and refill if necessary.
- Clean and empty the waste container under the brewer group.
- Clean and empty the drip tray.
- Rinse the mixers and brewer (at least 2x a day).
- Clean the outside of the machine, including the selection panel.

When cleaning the machine, pay attention to the following:

- Clean the machine and its parts with a damp, clean cloth or paper towel.
- Always put the cleaned parts back into the machine.
- If necessary, clean the machine more often than indicated. If it is used frequently, this will certainly be required.

4.5.1 Checking the ingredient containers

1. Open the door.
2. Check whether the ingredient containers still contain sufficient ingredients.
3. If necessary refill the containers as described in Chapter 3
4. Close the door.

4.5.2 Cleaning the waste container



Ensure your fingers do not become trapped when removing the waste container.



The waste container must not be washed in a dishwasher.

1. Open the door.
2. Remove and empty the waste container.
3. Clean the waste container.
4. Clean the immediate area around the waste container in the machine.
5. Put the container back in the machine.
6. Pull out the door detection switch (Pos. 3).

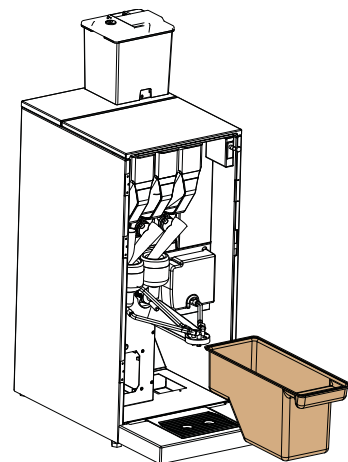


Figure 4-2

7. On the service panel (inside of the door), press * 6 Reset waste bin.
8. Close the door.

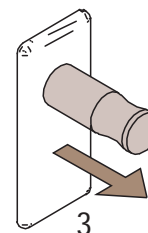


Figure 4-3

4.5.3 Cleaning drip tray



The drip tray must not be washed in a dishwasher.

1. Take the drip tray out of the machine carefully.
2. Empty the drip tray and clean it using water.
3. Put the drip tray back in the machine.

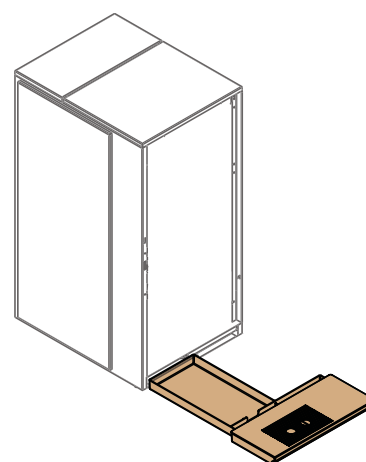


Figure 4-4

4.5.4 Rinsing the mixers and brewer

Rinsing the mixers:

1. Open the door.
2. Pull out the door detection switch (Pos. 3).
3. Place a cup (of at least 0.3 L) under the dispensing holder.
4. On the service panel (inside of the door), press * 1 Clean valve + Rinse mixer.
5. Remove the cup and close the door.
6. Empty the cup.

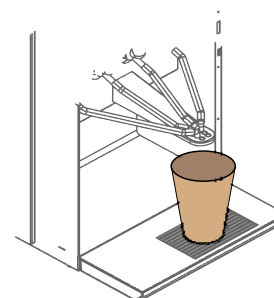


Figure 4-5

Rinsing the brewing group:

1. Open the door.
2. Pull out the door detection switch (Pos. 3).
3. Place a cup (of at least 0.3 L) under the dispensing holder.
4. On the service panel (inside of the door), press * 2 Rinse brewer.
5. Remove the cup and close the door.
6. Empty the cup.

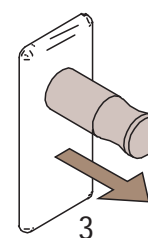


Figure 4-6

Combined function for rinsing brewing group and mixers:

1. Open the door.
2. Pull out the door detection switch (Pos. 3).
3. Place a cup (of at least 0.3 L) under the dispensing holder.

4. On the service panel (inside of the door), press * 5 rinse brewing group + rinse mixer + reset waste bin.
5. Remove the cup and close the door.
6. Empty the cup.

4.5.5 Clean the exterior

Clean the outside of the machine. Pay special attention to:

- The selection panel
- The area around the drink dispenser unit.
- The bottom of the door.

4.6 Weekly maintenance

Carry out the following operations on a weekly basis:

- Clean the mixer components
- Clean the brewer automatically
- Manually clean the brewer (take apart)
- Clean the bean container
- Clean the supply hose

4.6.1 Cleaning mixer components

Clean the following components during weekly maintenance:

- Extractors
- Mixing bowls
- Hoses
- Extraction lid



Wash your hands before continuing with this procedure.

1. Open the door.
2. Switch OFF the machine (on/off switch); see par. 2.5.
3. Remove the closed ingredient containers from the machine. Keep them in a clean and dry place.
4. Detach the hoses from the mixing chambers.
5. Detach the hoses from the dispensing pipes.
6. Remove the dispensing pipes from the dispensing holder.
7. Release the mixing chamber by pulling the green catch below it forwards.
8. Take the mixing chamber out of the machine by carefully pulling the bottom of the chamber towards you.
9. Remove the extraction lid from the machine.
10. Remove the mixer blade from the axle of the mixer motor. Use the mixing chamber as a hoist to do so.
11. Clean all parts in hot water and dry them carefully.
12. Clean the immediate vicinity of the mixer in the machine with a damp cloth.

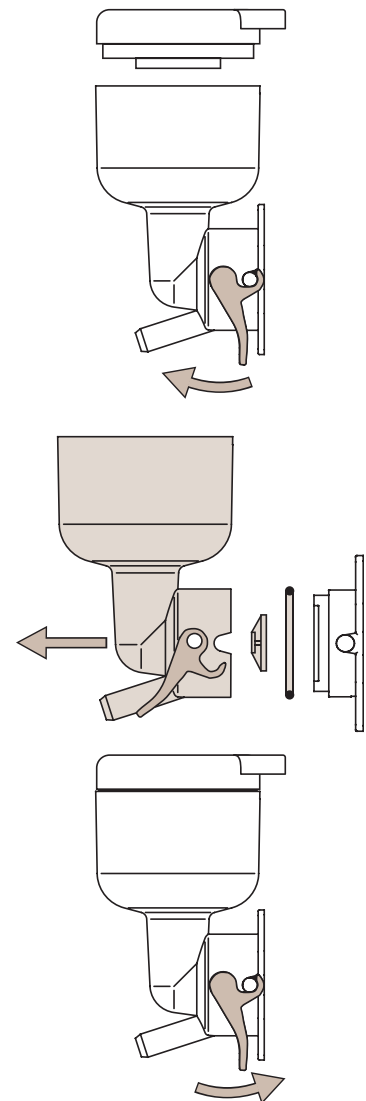


Figure 4-7

13. Put the mixer blade back. Ensure that the marking point on the mixer blade is lined up with the marking line on the motor.
14. Put the other cleaned parts back and connect the hoses.



The mixing chamber must latch securely in place to prevent leaks. Ensure that the green catch snaps back into place.

15. Switch ON the machine (on/off switch).
16. Pull out the door detection switch (Pos. 3).

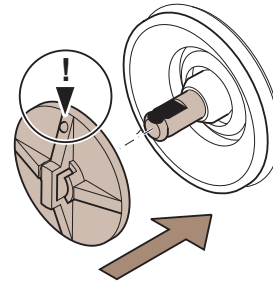


Figure 4-8

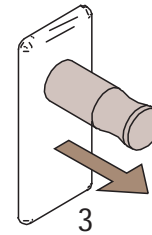


Figure 4-9

17. Place a cup (of at least 0.3 L) under the dispensing holder.
18. On the service panel (inside of the door), press *1 Clean valve + Rinse mixer.
19. Check the system for leaks.
20. Close the door.

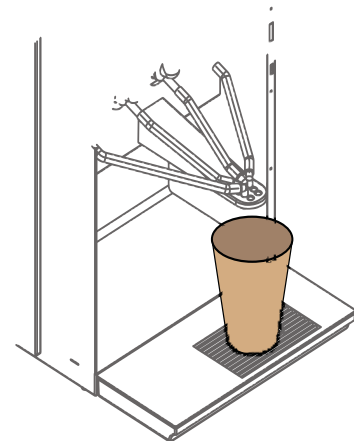


Figure 4-10

4.6.2 Cleaning brewer automatically

1. Open the door.
2. Pull the door detection switch out (Pos. 3).
3. Place a jug (min. 1L) under the dispenser holder.
4. On the service panel (inside of the door), press * 3 clean brewing group. This process takes approximately 5 minutes.
5. Wait until the display indicates 'Place tablet'; open the cover and place the cleaning tablet in the cleaning tube.
6. Press on a random button on the service panel. The cleaning process is resumed.
7. Wait until the cleaning process has been finished.
8. Remove and empty the jug.
9. Close the door.

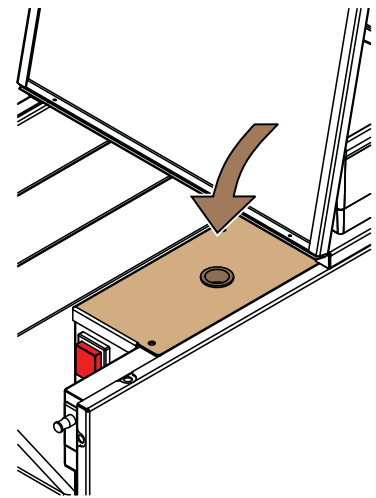


Figure 4-11

4.6.3 Cleaning brewer manually



Wash your hands before continuing with this procedure.

1. Open the door.
2. Switch OFF the machine (on/off switch); see par. 2.5.
3. Disconnect the hose of the dispensing pipe from the dispensing pipe holder.
4. Push the lever on the right up (1). Push the left-hand button (2) in and push the locking lever (2) down at the same time. Carefully pull the entire brewer forwards (see figure 4-12).

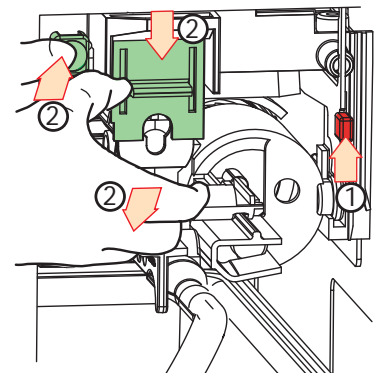


Figure 4-12

5. Turn the closing lever; the brewer will open (see figure 4-13).

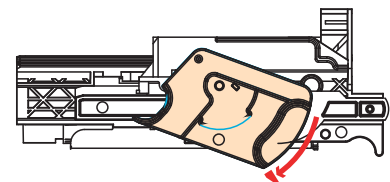


Figure 4-13

6. Thoroughly rinse the brewer under the tap (see figure 4-14).

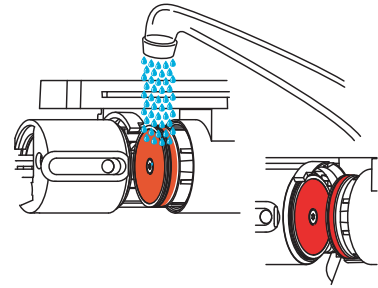


Figure 4-14

7. Turn the closing lever back; the brewer will close again (see figure 4-15).

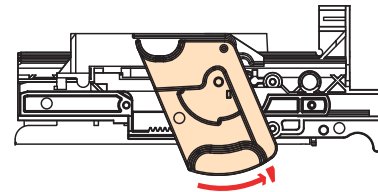


Figure 4-15

8. Carefully replace the brewing group. Push the locking lever (2) downwards. Push the lever (1) on the right down (see figure 4-16).
 9. Insert the hose with the dispensing pipe back into the dispensing pipe holder.

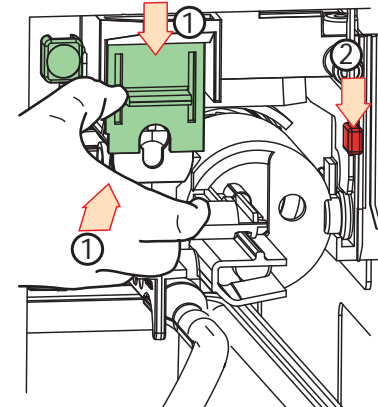


Figure 4-16



Check that the locking levers are in the correct position.

10. Switch ON the machine (on/off switch).
 11. Close the door.

Brewing group types

Several types of brewing group and motor base plate are interchangeable. These can be recognised by the colour of the operating parts. The brewing groups and motor base plates that can be used together are indicated in the overview below (see table 4-1).

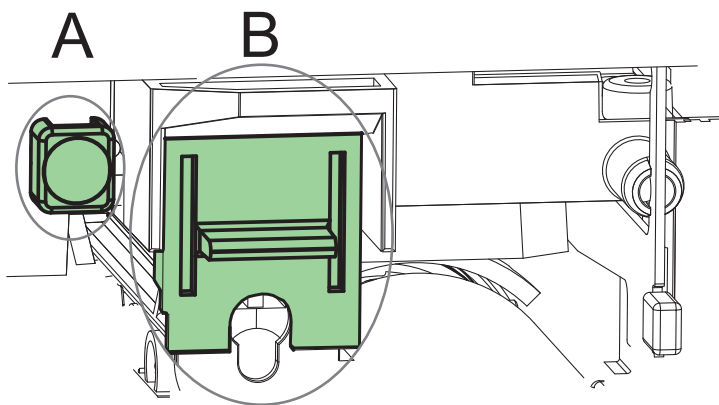


Figure 4-17

Table 4-1 Overview

Motor base plate (A)	Brewing group (B)	Permitted
red	red	yes

Motor base plate (A)	Brewing group (B)	Permitted
green	red	no
green	green	yes
red	green	yes

4.6.4 Cleaning the bean container



If the bean hopper has been removed, there will be an open connection to the grinder.



The bean hopper must not be cleaned with cleaning agents or water when it is placed on the machine.



The bean hopper must only be filled with roasted, dry coffee beans.

1. Open the door.
2. Switch OFF the machine (on/off switch) (see paragraph 2.5).
3. Open the bean hopper and unlock the container with the lever (see figure 4-18).

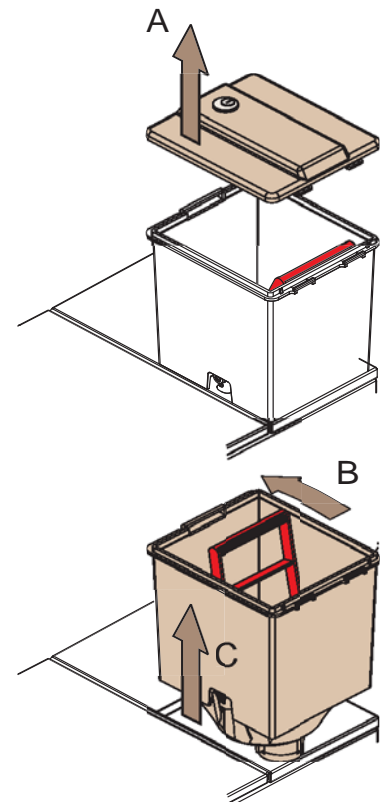


Figure 4-18

4. Remove the bean container.
5. Empty the bean container.
6. Clean the container with a wet cloth, rinse it with clean water and then dry it thoroughly.
7. Lock the container using the lever.
8. Fill the bean container with beans. The bean container has a capacity of around 1 kg (2.2 lbs).
9. Close the bean container and lock it using the key.
10. Remove the key.
11. Switch ON the machine (on/off switch).
12. Close the door.

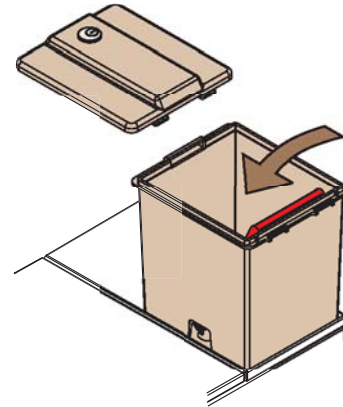
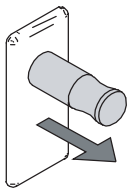


Figure 4-19

4.7 Maintenance overview

The labels with an overview of the maintenance to be carried out have been stuck to the inside of the door.



Pull out door detection switch for service functions

- * 1 Clean valve + Rinse mixer
- * 2 Rinse brewer
- * 3 Clean brewer (with cleaning tablet)
- * 4 Fill pump (Liquid chocolate ersion only)
- * 5 Rinse brewer + rinse mixers + reset waste bin
- * 6 Reset water bin
- * 7 Reset counter ingredient 1
- * 8 Reset counter ingredient 2
- * 9 Reset counter ingredient 3
- * 0 Free / paid vend
- * # 1 Menu DRINK COUNTERS
- * # 3 Reset BREWER MAINTENANCE
Reset CHANGE WATER FILTER
Reset DESCALING



DAILY SERVICE

See user manual for daily service

- Check the ingredient
- Empty / clean drip tray
- Rinse mixer, 2 to 3 times
- Rinse brewer
- Empty waste bin and reset counter



WEEKLY SERVICE

See user manual for weekly service

- Remove mixer components and clean with warm water
- Remove extraction cover (underneath containers) and clean with warm water
- Clean brewer (with cleaning tablet)
- Brush out coffee chute (by taking out brewer)
- Clean bean container

Figure 4-20

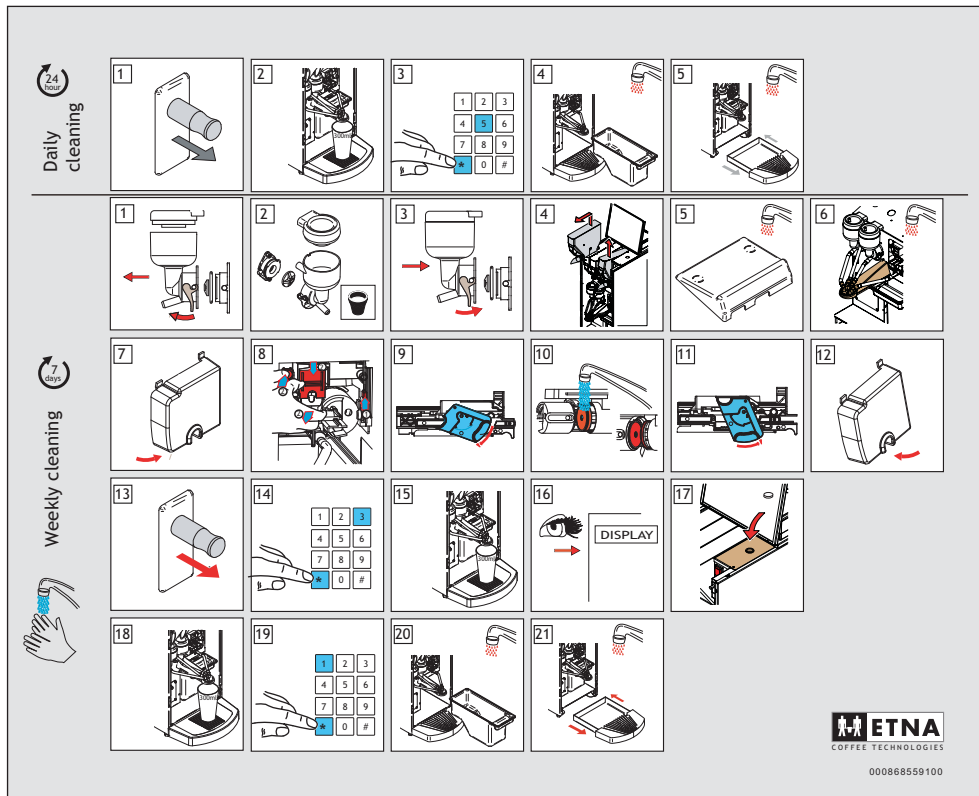


Figure 4-21

5 RESOLVING PROBLEMS

5.1 LCD display on the selection panel

If faults occur in the machine, the LCD display on the selection panel will display a fault message.

5.1.1 Fault messages

Despite taking all precautionary measures, faults may occur in the machine. In this case, a fault message is displayed. The table below shows a number of faults that could occur and their causes and remedies.

Fault message	Cause	Remedy
Fill container x	Container x is empty	Fill the container and reset the fault message, see Filling containers
Empty waste bucket	The waste bucket is full	Empty waste bucket and clean it, see Emptying waste bucket
Rinse brewing group		Rinse the brewing group, see Cleaning the brewing group automatically
Cleaning the brewing group		Cleaning the brewing group manually, see Cleaning the brewing group
Empty drip tray	The drip tray is full	Empty drip tray, see Cleaning drip tray
Exact change	Not enough change in money changer	Pay with exact change
Drink switched off	Selected drink not available	Contact your supplier
Replace lime scale filter	Filter has exceeded its service life	Replace the filter
Boiler is heating up	Boiler temperature is too low	Wait until the boiler has heated up
No water	Water level too low	Check the machine's water supply

5.1.2 Selection panel in programming mode

When the programming mode is used, the selection panel has the following functions:

- **+ or -**, these keys are used to navigate the menu, or to increase or decrease values.
- **esc**, this key ensures that you exit the menu without making any changes.
- **enter**, this key confirms the value that is set.

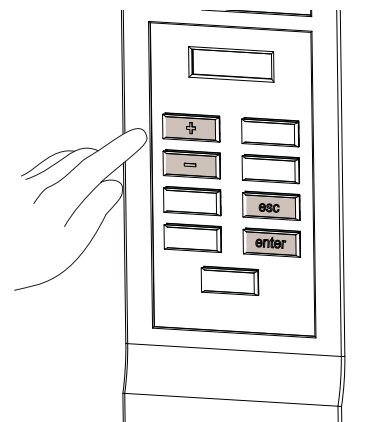


Figure 5-1

5.1.3 User menu (Operator)

Press on # on the service panel and enter the pin code. The standard pin code for the user menu is **4321**.

Menu subject	Description
Counters	- reading the counter settings per drink - resetting the counter settings
Drink volume	- changing the total drink volume (default 100%, range 50-100%) - testing the drink volume
Drink strength	- changing the total drink strength (default 100%, range 80-100%) - testing the drink strength
Time & date	- switching on/off on display - changing hours - changing minutes - changing year - changing month - changing day
Temperature	- changing the temperature (set water default 100°C, coffee water default 90°C, range 80-100°C)
Clean grinder	- clean the bean grinder using a cleaning tablet. This has not been supplied

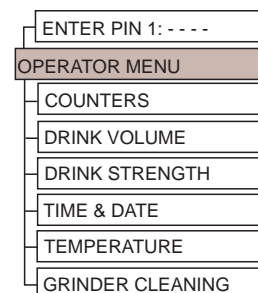


Figure 5-2

5.1.4 Diagram of user menu

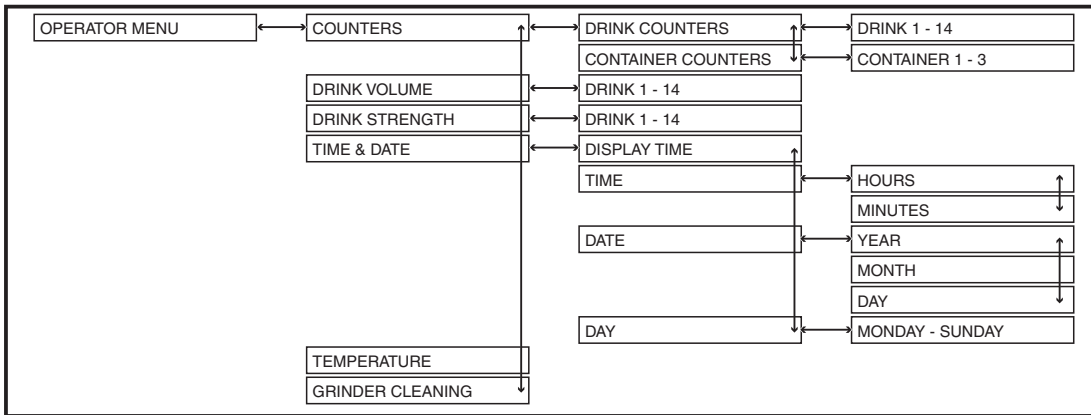


Figure 5-3

5.2 Service engineer menu

Press # on the service panel and enter the PIN code. The standard pin code for the service engineer menu is **4231**.

Menu subject	Description
Operator (User)	- menu access for the user
Drink settings	- changing the drink settings
Machine counters	- reading the machine counters
Machine settings	- changing the machine parameters
Pin menu	- changing the pin codes
Coin mechanism:	- setting the machine's coin system

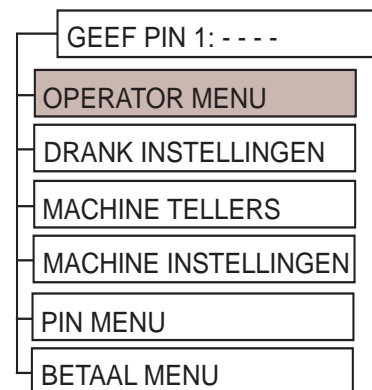


Figure 5-4

5.3 Service menu diagram

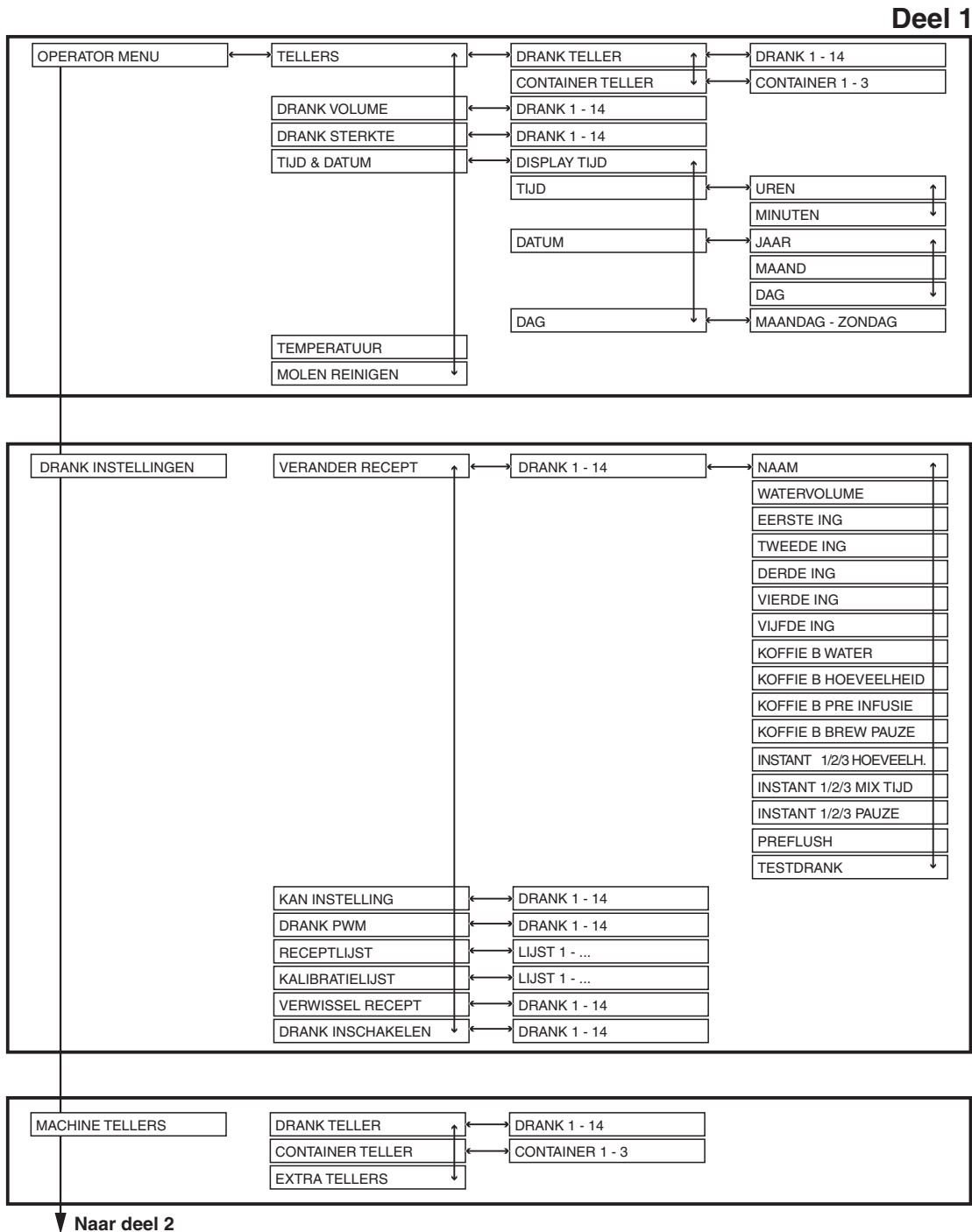


Figure 5-5

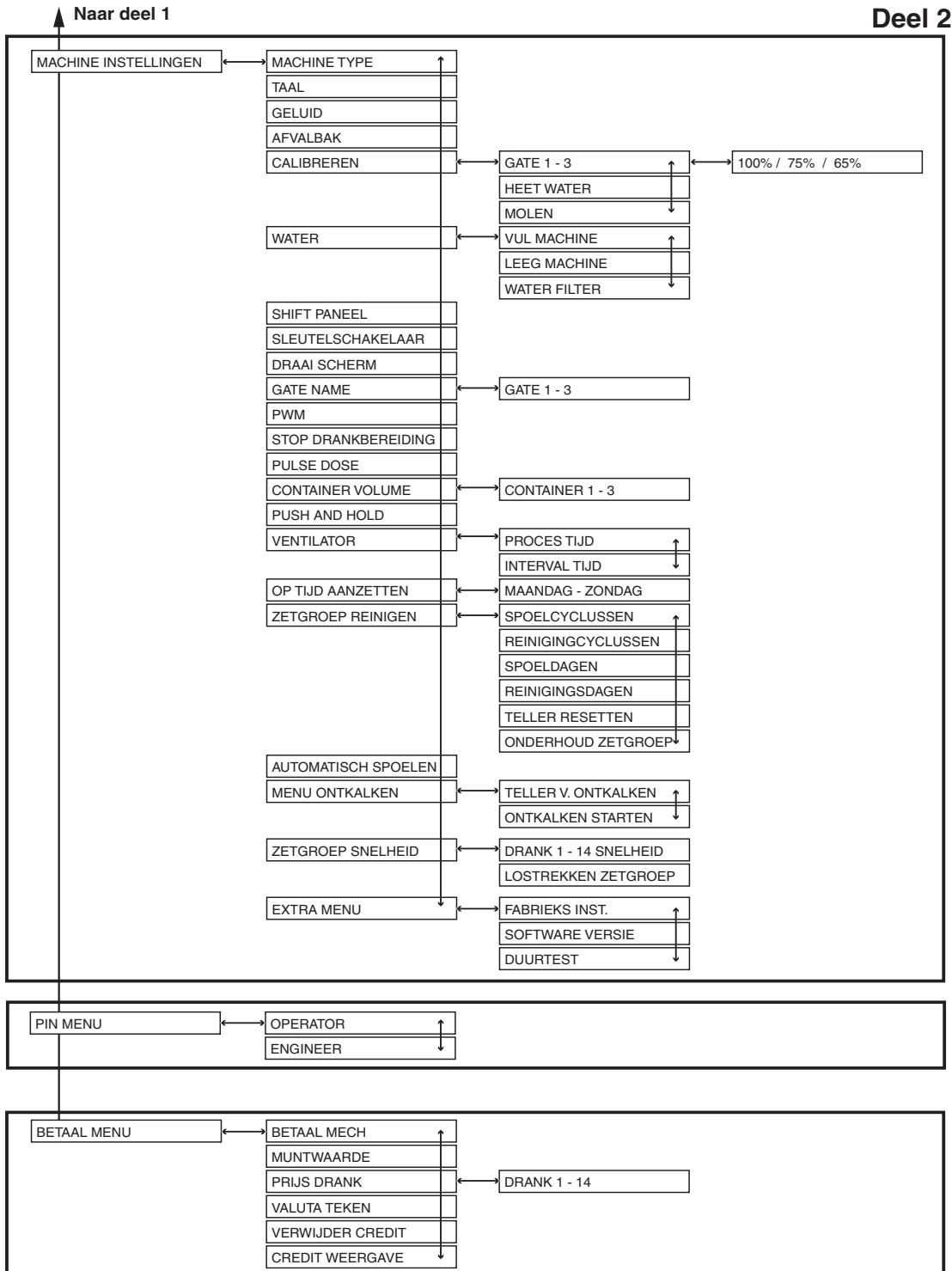


Figure 5-6

5.4 Electrical diagram

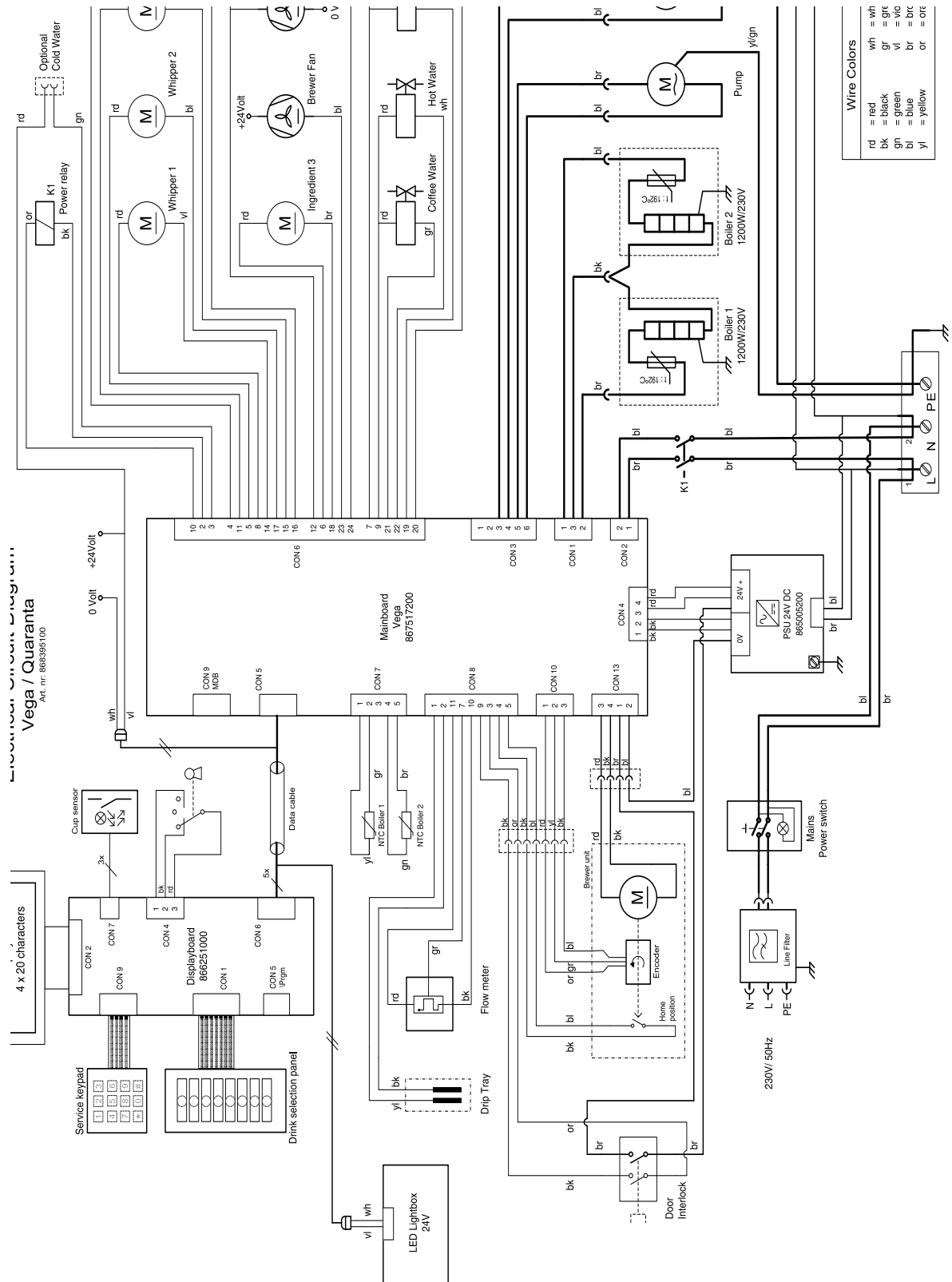


Figure 5-7

5.5 Water flow diagram

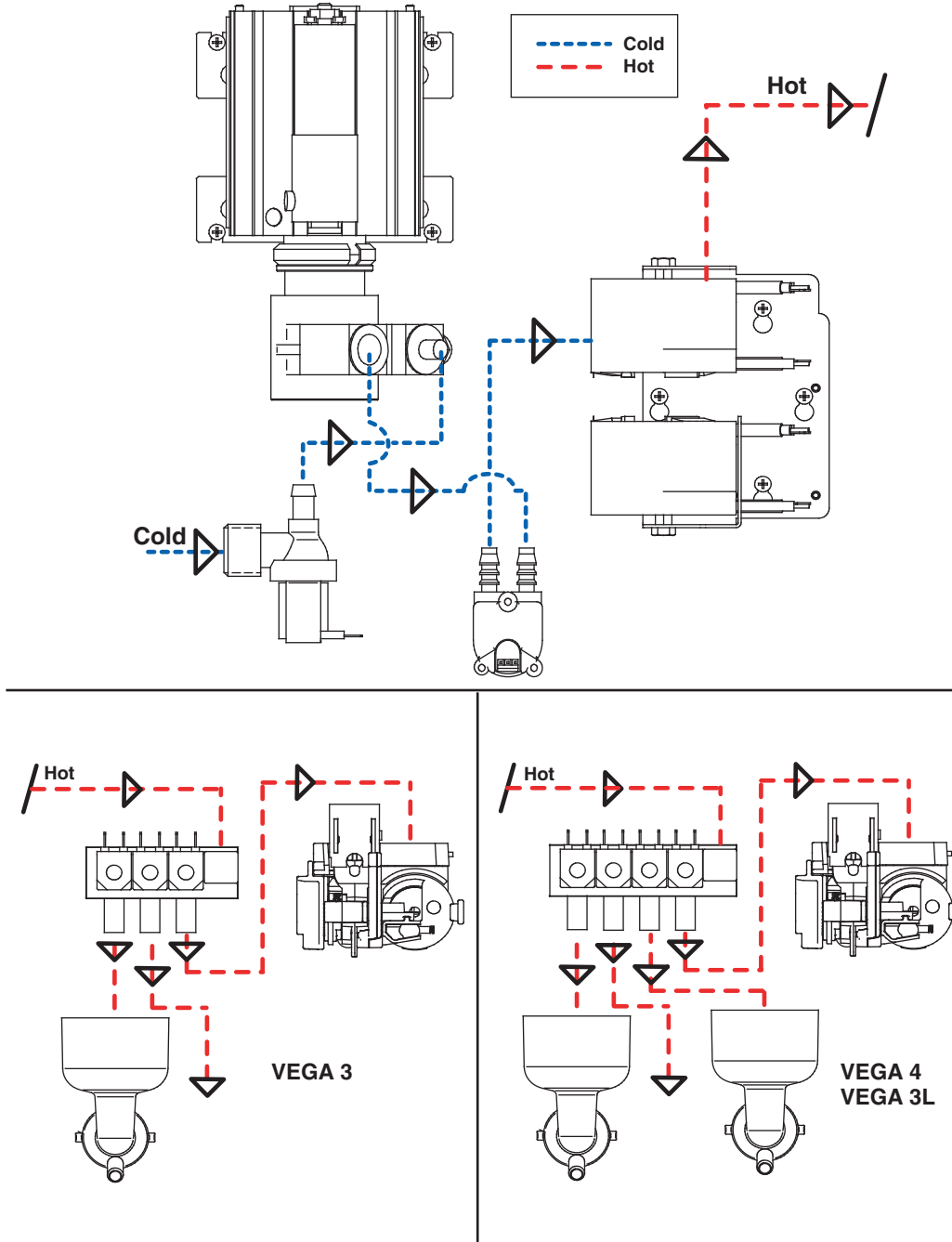


Figure 5-8

6 TECHNICAL SPECIFICATIONS

6.1 Electrical system



Refer to the machine type plate for the correct configuration of your machine; see Chapter 1: Machine Identification.

Description	Value
Main voltage	230 V
Frequency	50 Hz
Capacity	3 kW
Fuse	16 A

6.2 Water system

Description	Value
Water connection	G 3/4" - outer ring
Minimum water pressure	1.5 bar (150 kPa)
Maximum permitted water pressure	8 bar (800 kPa) ¹

1. If the pressure is higher, a pressure reducer must be installed.

6.3 Sound level

Description	Value
In operation	max. 70 dB(A)



Measurements according to DIN 45635, with normal use.

6.4 Ambient conditions

Description	Value
Ambient temperature	5 - 40 °C



Never place the machine in a room in which the temperature may drop below 0 °C. This is to keep the water in the machine from freezing.

6.5 Dimensions and weight

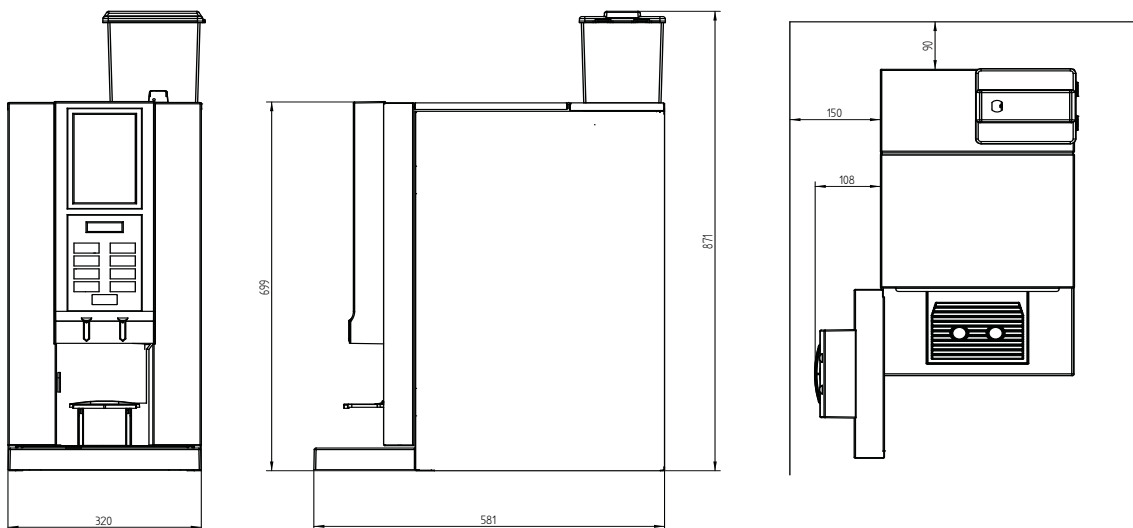


Figure 6-1

Description	Value
Height	871 mm (incl. bean container)
Height	699 mm (without bean container)
Width	320 mm
Depth	581 mm
Weight when empty	38 kg
Weight when full	42.5 kg

7 SOFTWARE

7.1 Maintenance overview

The labels with an overview of the maintenance to be carried out have been stuck to the inside of the door.

To be added!

7.2 Levels

The software in the machines has two levels:

- User
- Service engineer

Each level has its own specific options and possibilities. You can access the levels by pressing # on the service panel. The standard pin codes for the operator and service engineer are:

Level	Pin code
User	4321
Service engineer	4231

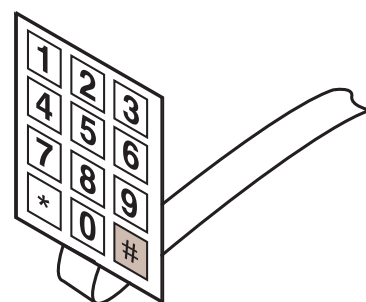


Figure 7-1

7.3 User menu (Operator)

On the service panel, enter the pin code: press **#4321**.

The standard PIN code for the user menu is 4321.

Menu subject	Description
Counters	- reading the counter settings per drink - resetting the counter settings
Drink volume	- changing the total drink volume - testing the drink volume
Drink strength	- changing the total drink strength - testing the drink strength

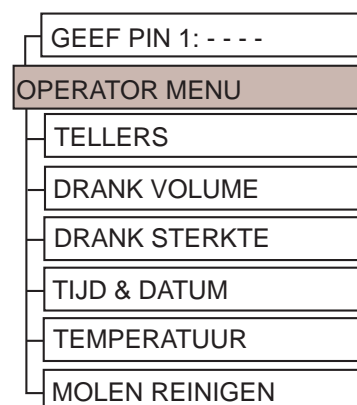


Figure 7-2

Menu subject	Description
Time and date	<ul style="list-style-type: none"> - switching on/off on display - changing hours - changing minutes - changing year - changing month - changing day
Temperature	- changing the temperature

7.4 Service engineer menu

Press # on the service panel and enter the PIN code. The standard pin code for the service engineer menu is **4231**.

Menu subject	Description
Operator (User)	- menu access for the user
Drink settings	- changing the drink settings
Machine counters	- reading the machine counters
Machine settings	- changing the machine parameters
Pin menu	- changing the pin codes
Coin mechanism:	- setting the machine's coin system

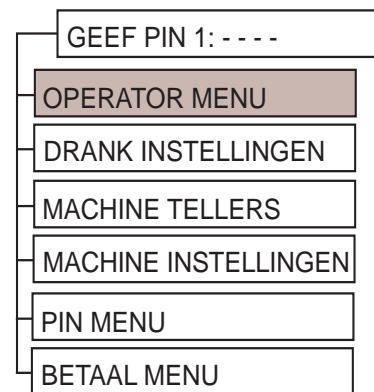


Figure 7-3

7.5 Drink settings

Menu subject	Description
Setting drink recipes	- changing the drink settings per drink
Multi cup	- allocating the number of cups per jug

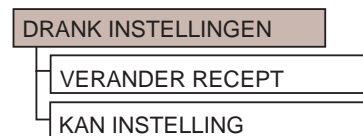


Figure 7-4

7.5.1 Setting drink recipes

Menu subject	Description
Drink name	- entering drink name
Water volume	- entering water volume in millilitres
1st ingredient	- select the 1st ingredient required to be dosed
2nd ingredient	- select the 2nd ingredient required to be dosed
3rd ingredient	- select the 3rd ingredient required to be dosed
4th ingredient	- select the 4th ingredient required to be dosed
5th ingredient	- select the 5th ingredient required to be dosed
Coffee water	- entering coffee water volume in millilitres
Coffee dosage	- entering coffee dosage in grams
Pre-infusion	- entering pre-infusion in seconds
Brewer pause	- entering brewer pause in seconds
Dosage ing 1	- entering dosage in grams
Mixing time ing 1	- entering mix time in seconds
Waiting time ing 1	- entering delay in seconds
Dosage ing 2	- entering dosage in grams
Mixing time ing 2	- entering mix time in seconds
Waiting time ing 2	- entering delay in seconds
Dosage ing 3	- entering dosage in grams
Mixing time ing 3	- entering mix time in seconds
Waiting time ing 3	- entering delay in seconds



Figure 7-5

Example:
 Drink name: **Cappuccino**

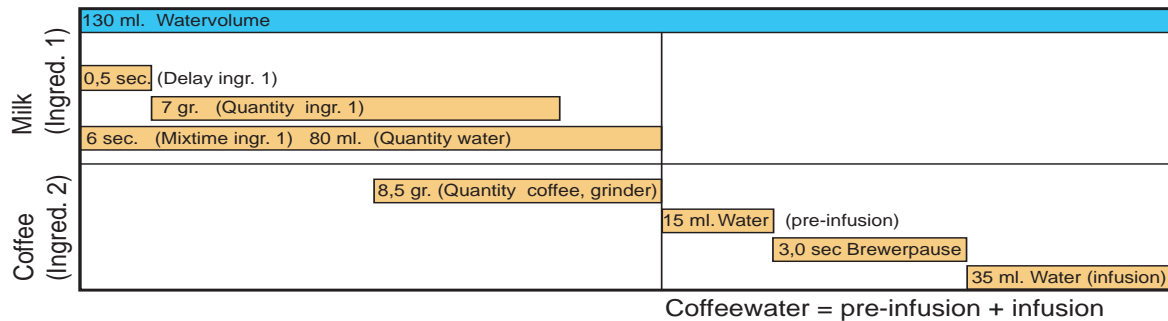


Figure 7-6

7.5.2 Multi cup

Menu subject	Description
Drink x	- entering number of repetitions per drink



Figure 7-7

7.6 Machine counters

Menu subject	Description
Drink counters	- reading the counter settings per drink
Container counters	- setting the alarm level for the containers in grams - setting the descaling level in litres
Advanced	- reading water volume flow - reading number of rinses - reading software version

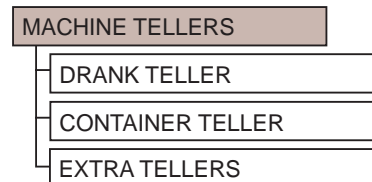


Figure 7-8

7.7 Machine settings

Menu subject	Description
Machine type	- entering the machine type
Language	- entering the correct language
Sound	- switch sound on/off
Waste bucket	- entering number of grams
Calibration	- calibration of grinder - calibration of ingredient motor 1 - calibration of ingredient motor 2 - calibration of ingredient motor 3 - calibration of water pump
Water	- filling and emptying the machine
Advanced	- Resetting factory setting

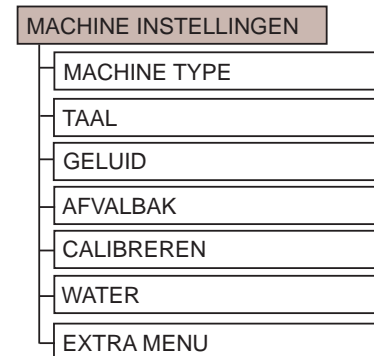


Figure 7-9

7.8 Coin mechanism:

Menu subject	Description
Coin system	Validator
Coin value	Entering coin values 1 to 6
Credit sign	Switch credit sign on or off
Clear credit	Option to clear credit value
Credit on display	Switching ON and OFF

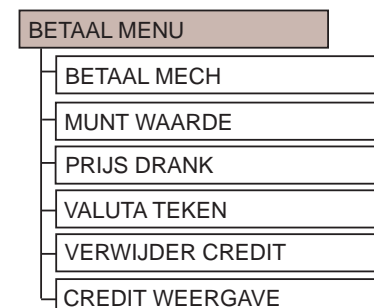


Figure 7-10

7.9 PIN code menu

Menu subject	Description
Operator	- entering PIN code for the user
Supervisor	- entering PIN code for the service engineer

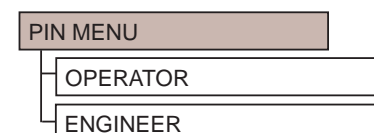


Figure 7-11

7.10 Adjusting brewing group speed

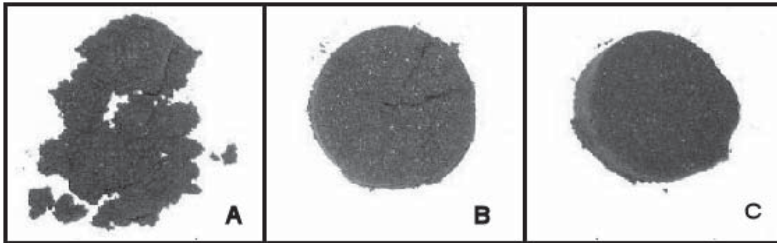


Figure 7-12 Composition of coffee tablet

- 1 Step 1 is to press the coffee in the brewing group, after which the coffee is wetted.
- 2 Step 2 is to press the coffee further to form a compact coffee tablet.
- 3 Check the composition of the coffee tablet.
- 4 The brewing group speed is adjusted using the software settings.
 - Go to Machine settings
 - Go to the Extra menu
 - Select Brewing group speed
 - Do not set: Coffee 1 RPS speed (default value 13). Coffee 1 RPS must always be lower than coffee 2 RPS.
 - Set the coffee 2 RPS speed (default value 18)

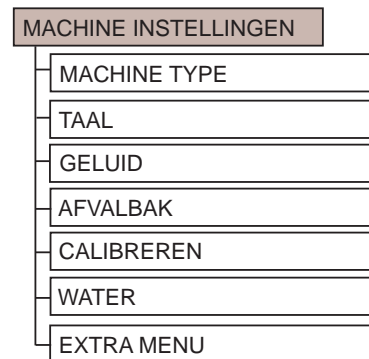


Figure 7-13



The factory setting for coffee 2 RPS is shown on the back of the motor base plate.

Type	Composition	Remedy
A	Coffee tablet is not compact and wet.	Increase the brewing group speed. Repeat the check.
B	Coffee tablet is compact, wet and falls apart in solid lumps.	No action needed.
C	Coffee tablet is compact and dry.	Decrease the brewing group speed. Repeat the check.

7.11 Calibrating the machine



Calibrating the machine requires the following:

- 0.5 l measuring jug
- scales accurate to 0.1 g

- 1 Open the door.
- 2 Pull out the door detection switch (Pos. 3).
- 3 Place the measuring jug under the dispensing holder.
- 4 Press **#4231** on the service panel; this takes you to the Service engineer menu.
- 5 Go to Machine settings.

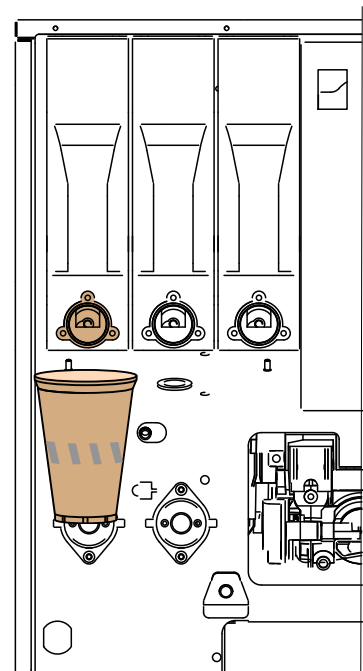


Figure 7-14

- 6 Go to calibrate and press ENTER. "MOTOR 1, 2 and 3" stands for an ingredient name.
- 7 Scroll through the next items:
 - Select the first ingredient and press ENTER.
 - Choose a percentage.
 - Press ENTER and then ENTER again.
 - Weigh the quantity delivered.
 - Enter the measured value.
 - Empty the cup.
 - Repeat these steps for each ingredient.
- 8 Restart the machine; see the restart procedure in par. 9.4.

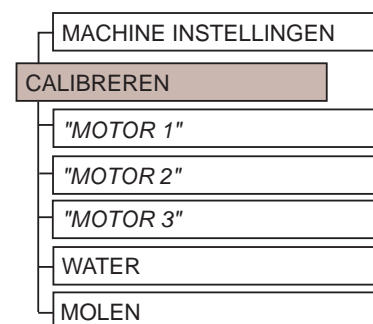


Figure 7-15

8 INSTALLATION

8.1 Connecting the machine

1. Place the machine on a dry and stable surface (*see paragraph 6.5*).
2. Connect to the tap using a water hose with the correct screw thread (3/4 inch BSP) and turn on the tap. Check that there are no leaks.
3. Electronic safety can only be ensured if a correctly earthed wall socket is used, as prescribed in the requirements regarding electronic safety.
4. The supplier cannot be held responsible if the wall socket does not meet the set safety requirements.
5. If in doubt as to whether a socket is correctly earthed, please contact a specialist.
6. If the plug cannot be used with the wall socket, the wall socket must be replaced.
7. The machine must be installed. A password is required for this purpose. This will be provided by your supplier.
8. Switch on the machine (on/off switch).
 - Wait until the software is ready.
 - The display shows the message when this status is reached.

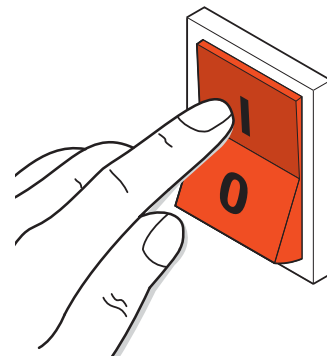


Figure 8-1



The supplier cannot be held responsible for damage to the machine resulting from incorrect handling.

8.2 Test the buttons



The Shift button has a different test function.

1. Press # on the service panel and enter the PIN code.
2. Press 9.
 - All the lights under the buttons will light up.
 - The display will show: **BUTTON/LED TEST**
Press any button
Restart: "1"
Exit: "0"
3. Press any button and the light underneath will go out.
4. Press the same button again and the light underneath will light up again.
5. The Shift button has a different test function: pressing it turns the lights in sequence to white/green/red/deliver left/delivery right. The light under the Shift button does not go out.
6. Press 1 on the service panel to restart.
7. Press 0 on the service panel to stop the test.

9 REPLACEMENT OF PARTS

9.1 Safety requirements - replacing parts



Remove the plug from the wall socket before repairing or replacing any part.

- See also par. 3.1.
- Check the wiring for damage before beginning the repair work.
- Do not re-use self-locking materials and hose clips.
- Ensure everything is clean and dry again after the repair work.

9.2 Repairs



Remove the plug from the socket before carrying out a repair.

Close the water tap and disconnect the water supply hose, where applicable.

Position the machine so that there is easy access to the left and right sides and the rear.

9.2.1 Access to the machine



Be careful when moving the machine. The machine is heavy; see par. 6.5.

- 1 Read the safety instructions; see par. 9.1.
- 2 Open the door.
- 3 Switch OFF the machine (on/off switch); see par. 2.5.
- 4 Remove the plug from the socket.

9.2.2 Removing the plating



Be careful when moving the machine. The machine is heavy; see par. 6.5.



All boiler parts and the water from the boiler are hot.

- 1 Access the machine; see par. 9.2.1.
- 2 Remove the drip tray.
- 3 Open the upper lid.

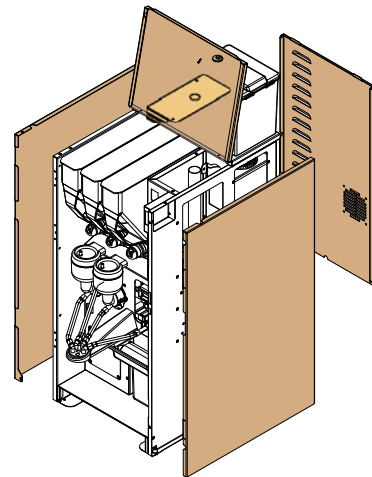


Figure 9-1

Accessing the rear of the machine:

- 1 Unscrew the two screws and lift the rear plate.
- 2 Disconnect the fan cable.

Accessing the left side of the machine:

- 1 Unscrew the screw at the front.
- 2 Unscrew the screw at the top.
- 3 Unscrew the two screws at the rear.
- 4 Remove the plate from the left side of the machine.

Accessing the right side of the machine:

- 1 Unscrew the two screws at the rear.
- 2 Slide the plate forwards.
- 3 Remove the plate from the right side of the machine.

9.3 Emptying the boiler



All boiler parts and the water from the boiler are hot.

- 1 Access the machine; see par. 9.2.1.
- 2 Close the water tap.
- 3 Place a jug (of at least 0.5l) under the dispensing nozzle.
- 4 Press **#4231** on the service panel; this takes you to the Service engineer menu.
- 5 Remove the plating from the machine; see par. 9.2.2.
- 6 Go to Machine settings.
- 7 Go to empty machine and press ENTER.
- 8 Repeat this until the boiler is empty.

When no more water enters the jug, the boiler is empty.

9.4 Restarting

- 1 Check that the wiring has been connected correctly.
- 2 Check that the hoses and flaps have been connected correctly.
- 3 Replace the plating on the machine.
- 4 Carry out the daily maintenance; see par. 4.5.
- 5 Connect the water supply hose again (where applicable) and open the tap.
- 6 Reconnect the mains.
- 7 Pull out the door detection switch (Pos. 3).
- 8 Switch ON the machine (on/off switch).
 - Wait until the software is ready.
 - The display shows the message when this status is reached.
- 9 Check the machine for leaks.
- 10 Perform the fill procedure; see Fill procedure (if applicable)
- 11 The machine is ready for use again.

Fill procedure

- 1 Place a jug (of at least 0.5l) under the dispensing nozzle.

- 2 Press **#4231** on the service panel; this takes you to the Service engineer menu.
- 3 Go to Machine settings.
- 4 Go to fill machine and press ENTER.
"Brewer init" will appear on the display.
Wait until "Place a cup..." appears on the display.
- 5 The machine is ready for use again.

9.5 Drink selection labels

- 1 Remove the relevant button by gripping it between your thumb and index finger and pulling it backwards and to the right.

The drink label is loose inside the button.
- 2 Remove the existing drink label.
- 3 Apply the new label.

Make sure that the label is positioned correctly.
- 4 Replace the button by pressing it on the relevant position on the machine. Check that the button is positioned correctly, that it is correctly attached and that it can be pressed in.

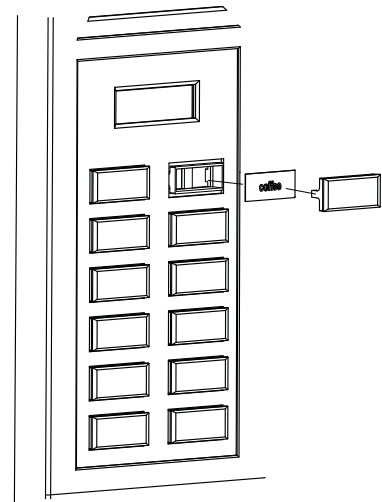


Figure 9-2

9.6 Replacing the inlet valve

- 1 Empty the boiler; see par. 9.3.
- 2 Remove the plating on the left side; see par. 9.2.2.
- 3 Disconnect the wiring from the inlet valve.
- 4 Disconnect the water hoses from the inlet valve.
- 5 Unscrew the two screws from the inlet valve.
- 6 Replace the inlet valve.
- 7 Connect the water hose to the inlet valve.
- 8 Connect the wiring to the inlet valve.
- 9 Restart the machine; see the restart procedure in par. 9.4.

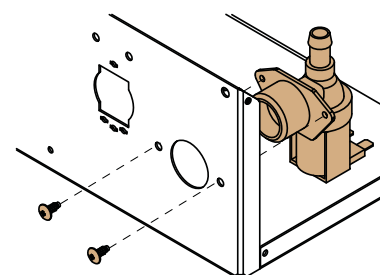


Figure 9-3

Also perform the fill procedure in par. 9.4.

9.7 Replacing the water pump

- 1 Empty the boiler; see par. 9.3.
- 2 Remove the plating on the left side; see par. 9.2.2.
- 3 Disconnect the wiring from the pump.
- 4 Disconnect the water hoses from the pump.
- 5 Unscrew all four screws for the entire pump assembly (motor, bracket and pump cup).
- 6 Replace the pump assembly.
- 7 Connect the water hoses to the pump.
- 8 Connect the wiring to the pump.
- 9 Restart the machine; see the restart procedure in par. 9.4.
Also perform the fill procedure in par. 9.4.
- 10 Calibrate the water pump; see par. 7.11.

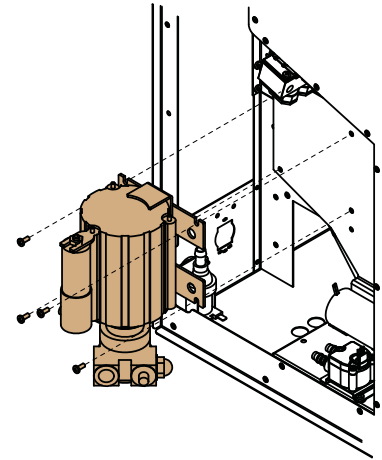


Figure 9-4

9.8 Replacing the flow meter

- 1 Empty the boiler; see par. 9.3.
- 2 Remove the plating on the left side; see par. 9.2.2.
- 3 Disconnect the wiring from the flow meter.
- 4 Disconnect the water hoses from the flow meter.
- 5 Unscrew the two screws from the flow meter.
- 6 Replace the flow meter.
- 7 Connect the water hoses to the flow meter.
- 8 Connect the wiring to the flow meter.
- 9 Restart the machine; see the restart procedure in par. 9.4.
Also perform the fill procedure in par. 9.4.
- 10 Calibrate the machine; see par. 7.11.

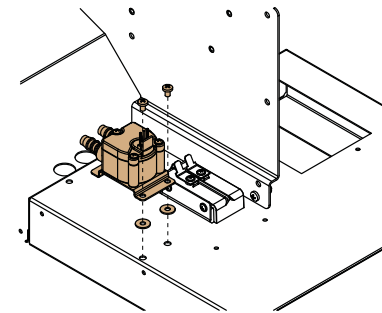


Figure 9-5

9.9 Replacing the boiler



Note

Make sure that the boiler is thoroughly cooled.

- 1 Empty the boiler; see par. 9.3.
- 2 Remove the plating on the left side; see par. 9.2.2.
- 3 Disconnect the wiring from the boiler.
- 4 Disconnect the water hoses from the boiler.
- 5 Unscrew the four screws.
- 6 Replace the boiler.
- 7 Connect the water hoses to the boiler.
- 8 Connect the wiring to the boiler.
- 9 Restart the machine; see the restart procedure in par. 9.4.

Also perform the fill procedure in par. 9.4.

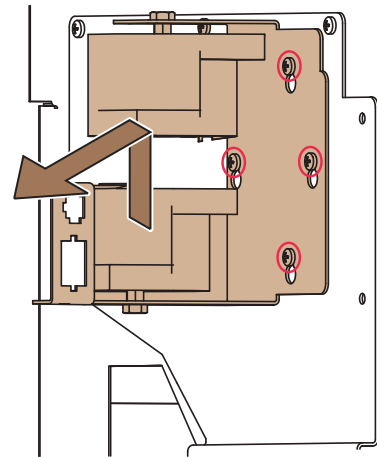


Figure 9-6

9.10 Replacing the outlet valve

- 1 Empty the boiler; see par. 9.3.
- 2 Remove the plating on the left side; see par. 9.2.2.
- 3 Remove the instant coffee containers and (if applicable) the liquid container from the machine
- 4 Remove the waste container from the machine
- 5 Disconnect the wiring from the valve block.
- 6 Disconnect the water hoses from the valves.
- 7 Replace the valve block.
This is fitted with two screws.
- 8 Connect the wiring to the valve block.
- 9 Connect the water hoses to the valves; use new hose clips.
- 10 Restart the machine; see the restart procedure in par. 9.4.

Also perform the fill procedure in par. 9.4.

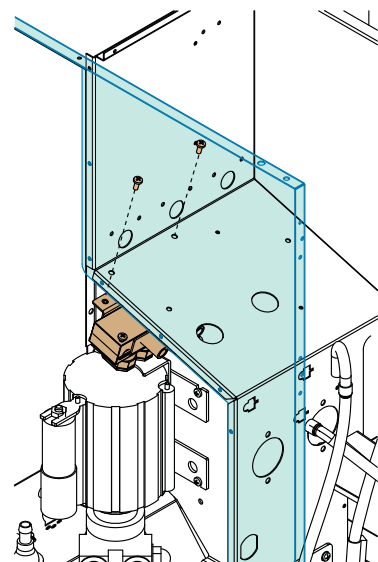


Figure 9-7

9.11 Replacing the grinder

- 1 Access the machine; see par. 9.2.1.
- 2 Remove the plating on the rear; see par. 9.2.2.
- 3 Disconnect the wiring from the grinder.
- 4 Replace the grinder.
This is fitted with four screws.
- 5 Connect the wiring to the grinder.
- 6 Connect the coffee guide pipe to the grinder.
- 7 Restart the machine; see the restart procedure in par. 9.4.
- 8 Calibrate the grinder; see par. 7.11.

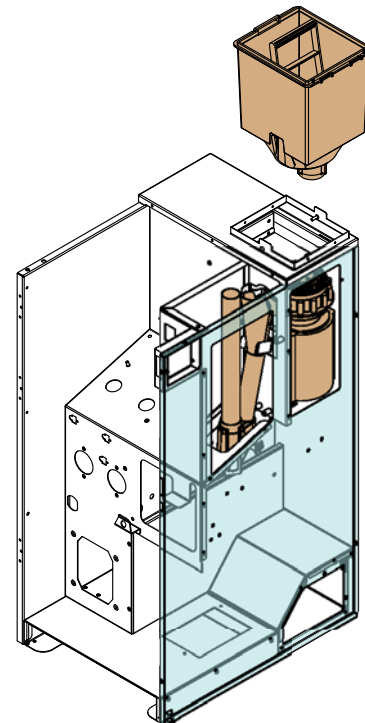


Figure 9-8

9.12 Replace millstone

- 1 Access the machine; see par. 9.2.1.
- 2 Remove the plating on the rear; see par. 9.2.2.
- 3 Pull the pawl out of the adjusting disk, so that the adjusting disk can be rotated.
- 4 Loosen the adjusting disk (turn it counter clockwise) and remove it.

The top and bottom millstones are now visible.

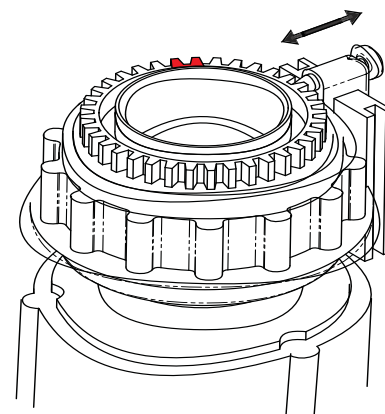


Figure 9-9

- 1 Remove both screws from the top millstone and remove it.
- 2 Remove both screws from the bottom millstone and remove it.
- 3 Position the new bottom millstone and attach it with both screws.
- 4 Position the new top millstone and attach it with both screws.
- 5 Place the adjusting disk back on the grinder.
- 6 Adjust the millstones:
 - Hand-tighten the adjusting disk until the millstones touch each other.
 - Rotate the adjusting disk a couple of pawl positions (teeth) back; the pawl must be in the position marked **red** (see figure 9-9).
 - Rotate the adjusting disk six pawl positions back (counter clockwise).
- 7 Reinsert the grinder in the machine.
- 8 Restart the machine; see the restart procedure in par. 9.4.

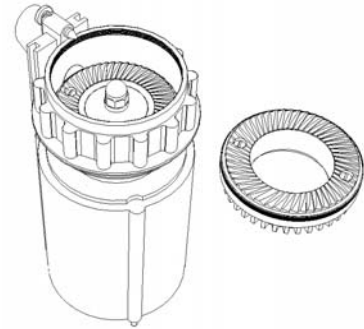


Figure 9-10

9.13 Replacing the motor base plate

Remove the motor base plate

- 1 Access the machine; see par. 9.2.1.
- 2 Remove the plating at the rear and on the right side; see par. 9.2.2.
- 3 Remove the brewer; see par. 4.6.3.
- 4 Unscrew the two screws at the rear.
- 5 Unscrew the five screws at the right side.
- 6 Unscrew the screw at the front (behind the outlet holder).
- 7 Unscrew the two screws from the top cover.
- 8 Remove the two pipes:
 - coffee feeder
 - tablet feeder
- 9 Unscrew the two screws from the bean chute on the coffee feeder pipe cover and remove the bean chute.
- 10 Disconnect the water hose.
- 11 Disconnect the wiring from the motor base plate.
- 12 Remove the motor base plate.

Fit the motor base plate

- 1 Remove the left bracket from the old motor base plate.
- 2 Remove both right brackets from the old motor base plate.
- 3 Position the new motor base plate.
- 4 Fit the left bracket on the new motor base plate.
- 5 Fit the shortest right bracket back onto the new motor base plate, paying attention to the position of the double rings.
- 6 Fit the long right bracket onto the new motor base plate.
- 7 Place the new motor base plate in the machine.
- 8 Reconnect the water hose.
- 9 Connect the wiring to the motor base plate.
- 10 Reinsert the bean chute and tighten the two screws of the chute to the cover of the coffee feeder pipe.
- 11 Reinsert the coffee feeder pipe and tablet feeder pipe.
- 12 Retighten the lid on top (two screws).
- 13 Fit the screw at the front (behind the outlet holder).
- 14 Fit the five screws on the right side.
- 15 Fit the two screws at the rear.
- 16 Position the brewer: see par. 4.6.3.
- 17 Restart the machine; see the restart procedure in par. 9.4.

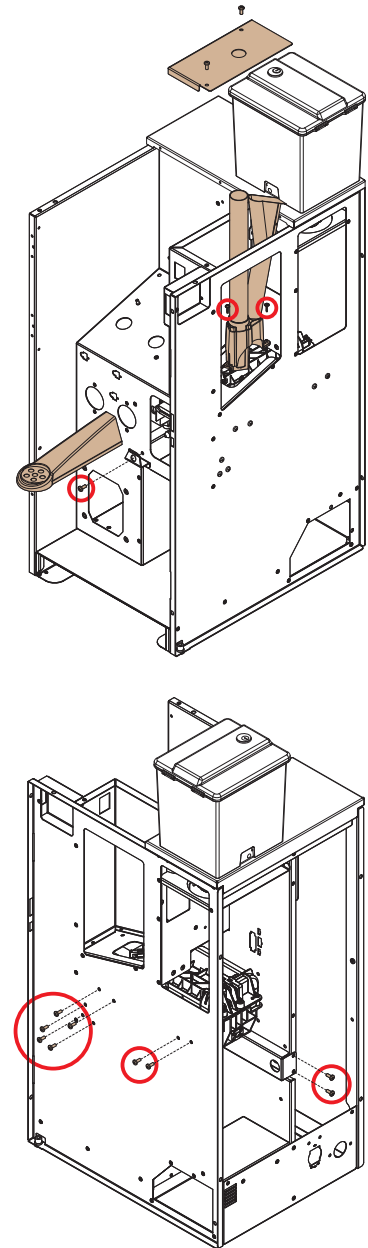


Figure 9-11

9.14 Replacing the extraction fan

- 1 Access the machine; see par. 9.2.1.
- 2 Remove the plating on the left and right sides; see par. 9.2.2.
- 3 Disconnect the wiring from the fan.
- 4 Unscrew the two screws on the fan fixing.
- 5 Unscrew the two screws on the cap.
- 6 Unscrew the two screws on the hose.
- 7 Remove the exhaust hoses.
- 8 Replace the fan.
- 9 Replace the exhaust hoses.
- 10 Refit the hose with two screws.
- 11 Fit the cap with the two screws.
- 12 Fit the fan fixing with the two screws.
- 13 Connect the wiring.
- 14 Restart the machine; see the restart procedure in par. 9.4.

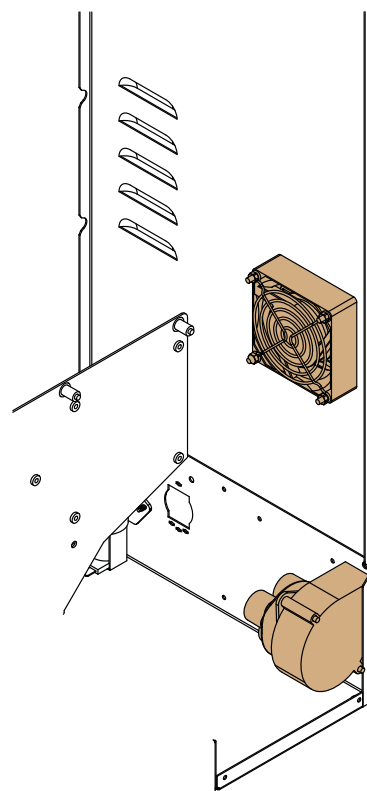


Figure 9-12

9.15 Replace the brewing group fan

- 1 Access the machine; see par. 9.2.1.
- 2 Remove the plating on the rear; see par. 9.2.2.
- 3 Disconnect the wiring from the fan.
- 4 Unscrew the four screws from the fan fixing.
- 5 Replace the fan.
- 6 Fit the fan with the four screws.
- 7 Connect the wiring.
- 8 Restart the machine; see the restart procedure in par. 9.4.

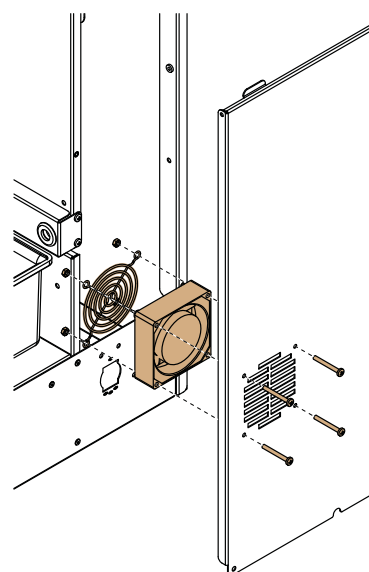


Figure 9-13

9.16 Replacing the mixer engine

Removing the mixer engine

- 1 Remove the mixer parts, see para. 4.6.1.
- 2 Access the machine; see par. 9.2.1.
- 3 Remove the plating on the rear, see par. 9.2.2.
- 4 Disconnect the wiring from the engine (rear of the machine).
- 5 Remove the two screws and supports that are used to fit the engine (front of the machine).
- 6 Remove the engine.

Fitting the mixer engine

- 1 Position the engine in the installation holes from the rear.
- 2 Fit the supports and screw the engine in place (front of the machine).
- 3 Reconnect the wiring for the engine (rear of the machine).
- 4 Position the mixer parts, see para. 4.6.1.
- 5 Restart the machine; see the restart procedure in par. 9.4.

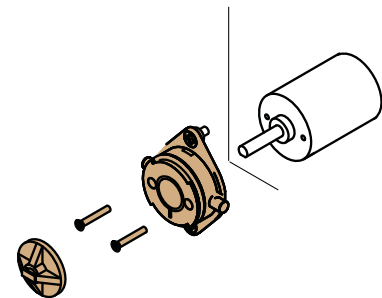


Figure 9-14

9.17 Replacing the ingredient engine

Removing the ingredient engine

- 1 Access the machine; see par. 9.2.1.
- 2 Remove the plating on the rear, see par. 9.2.2.
- 3 Only remove the boiler if necessary; see par. 9.9.
- 4 Open the door of the machine.
- 5 Remove the containers.
- 6 Remove the gear wheel for the relevant engine axle.
- 7 Disconnect the connector from the engine (rear of the machine).
- 8 Remove the four screws that are used to fit the engine.
- 9 Remove the engine by sliding it to the right and downwards under the mounting bracket.

Fitting the ingredient engine

- 1 Position the engine in the mounting bracket from below.
- 2 Screw the engine in place with the four screws.
- 3 Reconnect the connector for the engine.
- 4 Position the gear wheel on the engine axle.
- 5 Position the containers.
- 6 Restart the machine; see the restart procedure in par. 9.4.

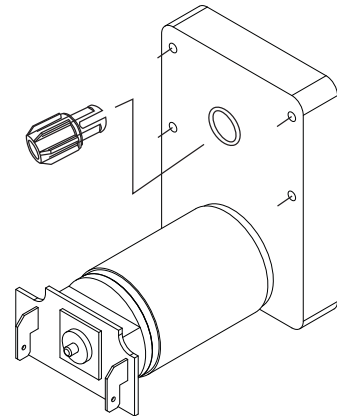


Figure 9-15

9.18 Replacing the drip tray sensor

- 1 Access the machine; see par. 9.2.1.
- 2 Remove the plating on the left side, see par. 9.2.2.
- 3 Disconnect the wiring from the sensor.
- 4 Unscrew the two screws (A) from the sensor fixing.
- 5 Replace the drip tray sensor (B).
- 6 Connect the wiring.
- 7 Restart the machine; see the restart procedure in par. 9.4.

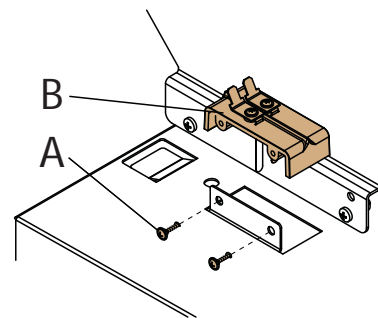


Figure 9-16

9.19 Door plate



Note : The printed circuit boards are ESD sensitive. Use ESD protection before working on these parts. Wear an ESD wristband and connect it to the machine frame.

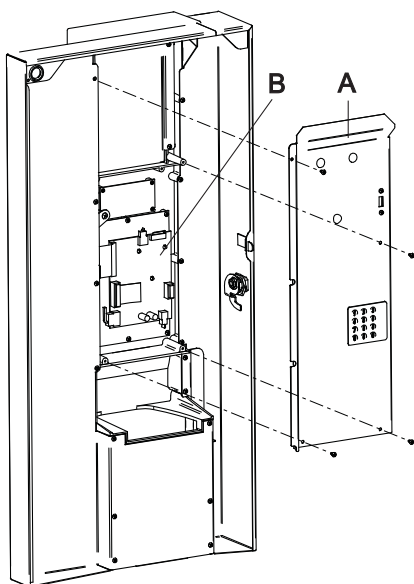


Figure 9-17

- A=Door plate
- B=Display PCB

Removing the door plate

- 1 Access the machine; see par. 9.2.1.
- 2 Unscrew the plate (A).
- 3 Disconnect the flat cable for the service panel from the display PCB (B).
- 4 Remove the plate.

Fitting the door plate

- 1 Connect the flat cable for the service panel to the display PCB (B).
- 2 Fit the plate (A).
- 3 Restart the machine; see the restart procedure in par. 9.4.

9.20 Replacing the cup sensor



Note : The printed circuit boards are ESD sensitive. Use ESD protection before working on these parts. Wear an ESD wristband and connect it to the machine frame.

- 1 Remove the door plate; see par. 9.19.
- 2 Disconnect the sensor connector from the display PCB.
- 3 Unscrew the 2 screws from the sensor fixing.
- 4 Replace the complete sensor.
- 5 Fit the sensor fixing with the 2 screws.
- 6 Connect the sensor connector to the display PCB.
- 7 Fit the door plate; see par. 9.19.

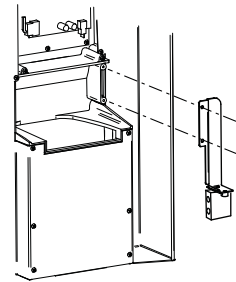


Figure 9-18

9.21 LCD display and display PCB



Note : The printed circuit boards are ESD sensitive. Use ESD protection before working on these parts. Wear an ESD wristband and connect it to the machine frame.

Replacing the LCD display

- 1 Remove the door plate; see par. 9.19.
- 2 Remove the 4 screws from the LCD display (C).
- 3 Remove the LCD display.
- 4 Position the LCD display and align the display with the frame in the door. Position the 4 screws.
- 5 Fit the door plate; see par. 9.19.

Replacing the display PCB

- 1 Remove the door plate; see par. 9.19.
- 2 Detach the display PCB (B) from the 3 clamping pins that are used to attach it.
- 3 Remove the display PCB.
- 4 Position the display PCB by pressing it onto the three clamping pins.
- 5 Connect the connectors to the display PCB (B).

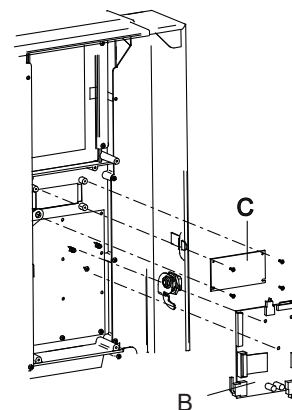


Figure 9-19

- 6 Fit the door plate; see par. 9.19.

9.22 Replacing the selection panel print



Note : The printed circuit boards are ESD sensitive. Use ESD protection before working on these parts. Wear an ESD wristband and connect it to the machine frame.

- 1 Remove the door plate; see par. 9.19.
- 2 Disconnect the connectors from the display PCB (B).
- 3 Detach the display PCB from the 3 clamping pins that are used to attach it.
- 4 Remove the display PCB.
- 5 Disconnect the connector from the selection panel PCB (D).
- 6 Unscrew the 8 screws from the PCB fixing.
- 7 Replace the selection panel PCB.
- 8 Fit the selection panel PCB with the 8 screws.
- 9 Connect the connector to the selection panel PCB.
- 10 Position the display PCB (B) by pressing it onto the three clamping pins.
- 11 Connect the connectors to the display PCB.
- 12 Fit the door plate; see par. 9.19.

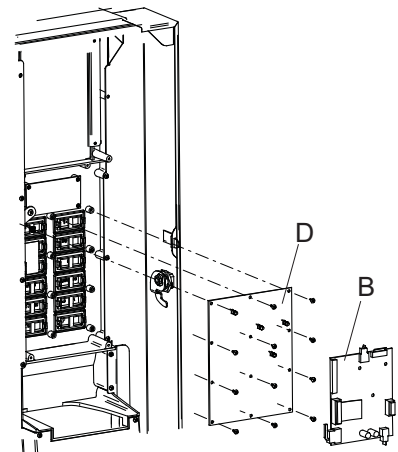


Figure 9-20

9.23 Replacing the illumination panel



Note : The printed circuit boards are ESD sensitive. Use ESD protection before working on these parts. Wear an ESD wristband and connect it to the machine frame.

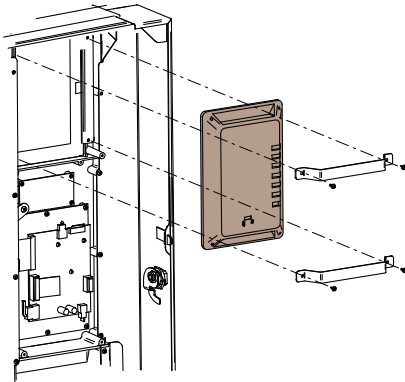


Figure 9-21

- 1 Remove the door plate; see par. 9.19.
- 2 Detach the illumination panel (E) from the 3 clamping pins that attach it to the door plate (A).
- 3 Disconnect the wiring from the illumination panel.
- 4 Replace the illumination panel.
- 5 Connect the wiring for the illumination panel.
- 6 Position the illumination panel by pressing it onto the three clamping pins on the door plate.
- 7 Fit the door plate; see par. 9.19.

9.24 Digital photo frame (optional)



A digital photo frame can also be fitted instead of the standard lighting panel.

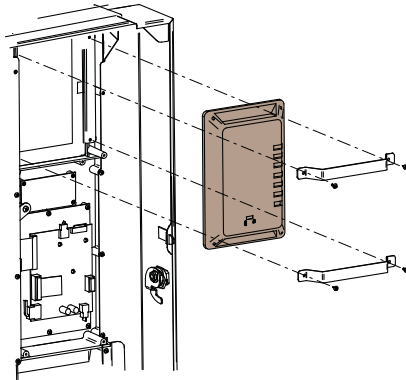


Figure 9-22

Replacing the photo frame

- 1 Remove the door plate; see par. 9.19.
- 2 Disconnect the connector from the photo frame.
- 3 Remove both the brackets that attach the photo frame.
- 4 Replace the photo frame; make sure that the display is positioned correctly.
- 5 Fit both brackets.
- 6 Reconnect the connector to the photo display.
- 7 Fit the door plate; see par. 9.19.

Replacing the power supply for the digital photo frame

- 1 Remove the door plate; see par. 9.19.
- 2 Access the machine; see par. 9.2.1.
- 3 Remove the plating on the right side, see par. 9.2.2.
- 4 Isolate the connectors from the power supply.
- 5 Remove the tie wraps that attach the power supply.
- 6 Replace the power supply.
- 7 Attach the power supply tie wraps.

- 8 Connect the connectors to the power supply.
- 9 Fit the door plate; see par. 9.19.
- 10 Restart the machine; see the restart procedure in par. 9.4.

Operating the photo frame



Please refer to the manuals enclosed for the correct use of the remote control and the digital photo frame.

The photo frame is operated with the remote control.

The photos can be stored on a memory card (SD, MS, MMC, XD). The photos must be in JPG format.

The computer files can be loaded via the USB connection on the door plate (inside of the door).

Photo frame settings

- 1 Press the SETUP button on the remote control or select Setup in the main menu.
- 2 The following settings can be created in the Setup menu:
 - Interval: the time between the photos
 - Transition effect: the transition between the photos
 - Browse mode: searching with thumbnails or file names
- 3 The following settings can be created in the Photo setting menu:
 - Photo: switching the playback of photos on/off
 - Music: n/a
 - Movie: n/a
- 4 The following settings can be created in the Display setting menu:
 - TV standard: NTSC, PAL or Auto
 - Brightness
 - Contrast
 - TFT brightness
 - TFT contrast
 - TFT saturation: saturation of the colours
- 5 The following settings can be created in the Custom setup menu:
 - OSD language: the language setting on the screen
 - UI style: the style of the screen menus
 - Contrast
 - Repeat mode: the repeat setting
 - OFF: repeat off
 - On: repeat file
 - Leaflet: repeat folder
 - All: repeat all files
 - Default: exit to factory settings
 - Exit

- 6 Exit: exit to the main menu

9.25 Replacing the peristaltic pump

- 1 Access the machine; see par. 9.2.1.
- 2 Disconnect the pump cup by pulling the bracket downwards. Leave the hoses attached!
- 3 Unscrew the four screws from the pump assembly.
- 4 Pull the pump assembly forwards.
- 5 Disconnect the wiring from the pump.
- 6 Replace the pump assembly.
- 7 Connect the wiring to the new pump.
- 8 Fasten the pump assembly in position with the four screws.
- 9 Clean the rotor assembly with a damp cloth.
- 10 Put the pump cup back in place.

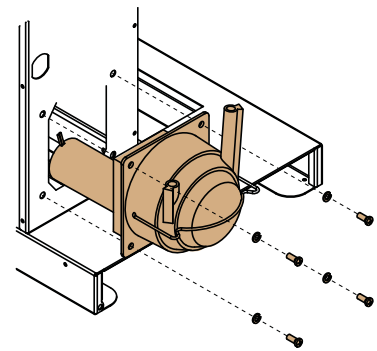


Figure 9-23



Make sure the pump cup is properly in place. Incorrect assembly may cause incorrect dosing of product.

- 11 Move the bracket over the pump cup.
- 12 Restart the machine; see the restart procedure in par. 9.4.
Also perform the fill procedure in par. 9.4.
- 13 Calibrate the liquid pump; see par. 7.11.

9.26 Replacing the relay

- 1 Access the machine; see par. 9.2.1.
- 2 Disconnect the wiring from the relay.
- 3 Unscrew the four screws from the relay.
- 4 Replace the relay.
- 5 Connect the wiring to the relay.
- 6 Restart the machine; see the restart procedure in par. 9.4.

9.27 Replacing the mains filter

- 1 Access the machine; see par. 9.2.1.
- 2 Disconnect the wiring from the mains filter.
- 3 Unscrew the four screws from the mains filter.
- 4 Replace the mains filter.
- 5 Connect the wiring to the mains filter.
- 6 Restart the machine; see the restart procedure in par. 9.4.

9.28 Replacing the mains cable

- 1 Access the machine; see par. 9.2.1.
- 2 Remove the top cover of the mains cable connection, at the back of the machine.
- 3 Disconnect the cable clamps from the mains cable.
- 4 Replace the mains cable.
- 5 Refit the cable clamps of the mains cable.
- 6 Place the top cover back on the mains cable connection.
- 7 Restart the machine; see the restart procedure in par. 9.4.

9.29 Replacing the on/off switch

- 1 Access the machine; see par. 9.2.1.
- 2 Remove the plating on the rear; see par. 9.2.2.
- 3 Remove the connectors from the on/off switch.
- 4 Replace the on/off switch.
- 5 Reconnect the connectors of the on/off switch.
- 6 Restart the machine; see the restart procedure in par. 9.4.