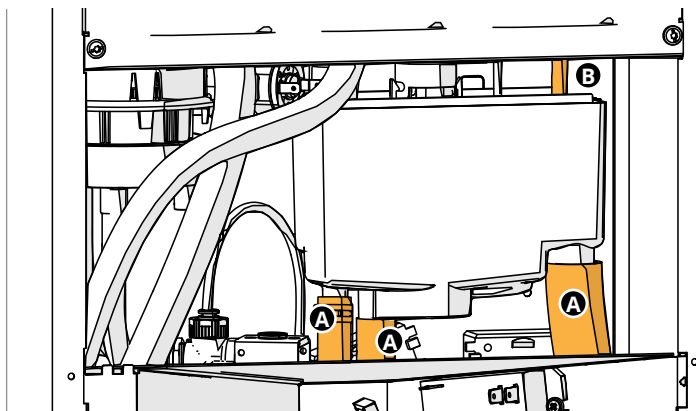


3.20 Remove the pump float tank



Step 1

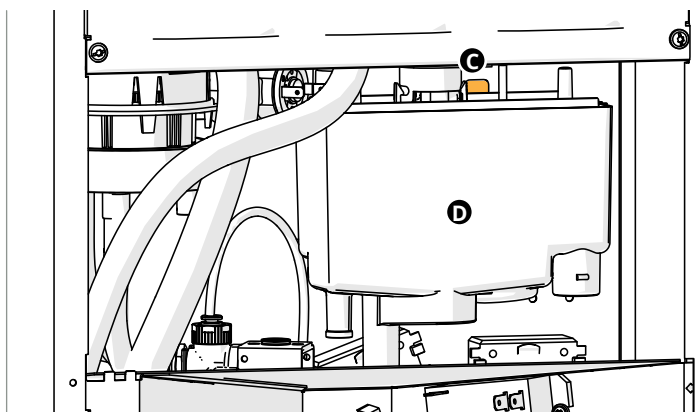
- drain the hot water boiler as in [Step 1](#) of [section 3.17](#)

Step 2

- remove the back panel as in [Step 3](#) of [section 3.6](#)

Step 3

- disconnect the wiring of the float (above the pump float tank)
- remove the front descaler inlet cap
- disconnect the 3 hoses underneath the float tank **A**
- disconnect the aeration hose **B** on top of the float tank
- disconnect the wiring from the pump

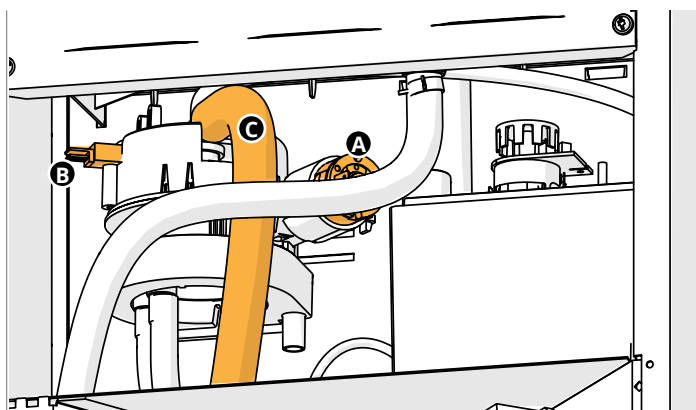


Step 4

- push the locking pawl **C** forward
- move the pump float tank **D** to the left to unlock it
- remove the pump float tank

► First remove the positioning disc to take out the pump motor.

3.21 Remove the water selector



Step 1

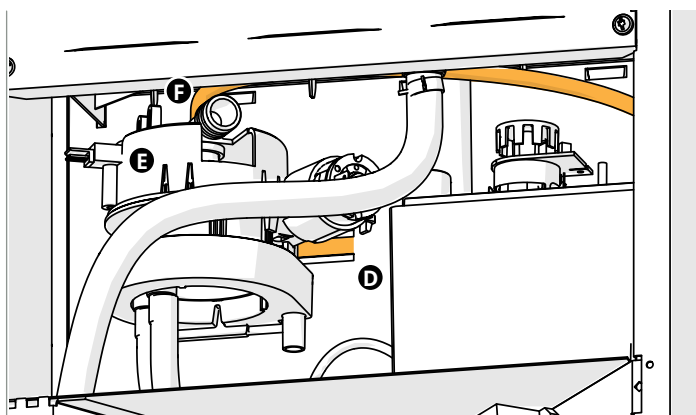
- drain the hot water boiler as in [Step 1](#) of [section 3.17](#)

Step 2

- remove the back panel as in [Step 3](#) of [section 3.6](#)

Step 3

- disconnect the wiring from the motor **A**
- disconnect the wiring from the light sensor **B**
- disconnect the hot water supply hose **C**



Step 4

- push the locking pawl **D** forward
- move the water selector **E** to the right to unlock it
- disconnect the aeration hose **F**

► Maintenance can be carried out without disconnecting the hoses from the water selector outlet.

► Consider greasing the notch **G** in the lid, where the rotating disc rotates, with food-grade silicone grease.



3.22 Remove the pump set

Step 1

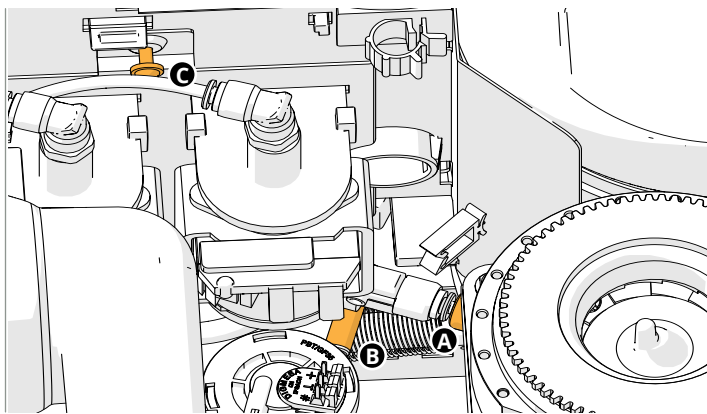
- drain the hot water boiler as in [Step 1](#) of [section 3.17](#)

Step 2

- take out the canisters as in [Step 1](#) of [section 3.3](#)

Step 3

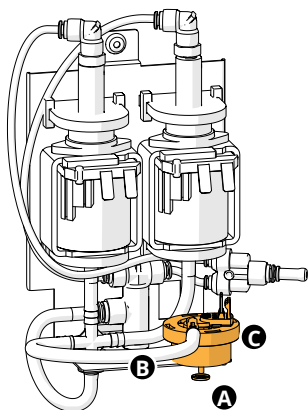
- remove the protective plate/service hatch as in [Step 2](#) of [section 3.3](#)



Step 3

- disconnect the supply pressure hose from the pump set **A**
- disconnect the hose from the water counter **B**
- disconnect the wiring of the water counter and pumps
- remove the screw of the bracket of the pumps **C**
- tilt up the bracket and remove the hose from the water counter
- remove the red pressure hose under the pump
- remove the pump set

3.23 Remove the water counter



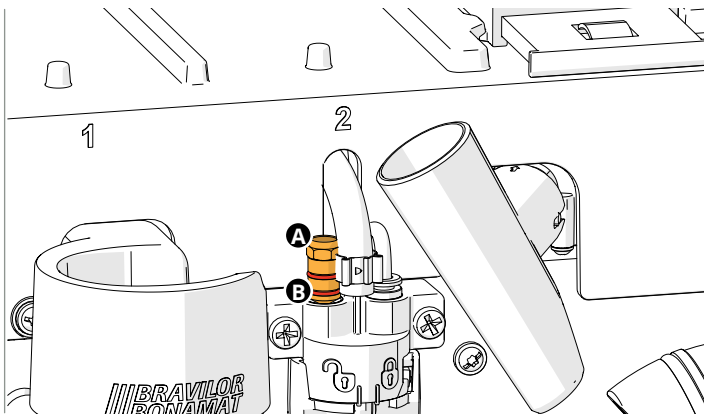
Step 1

- remove the pump set as in [section 3.22](#)

Step 2

- remove the starlock **A** under the water counter
- disconnect the hose **B**
- remove the water counter **C**

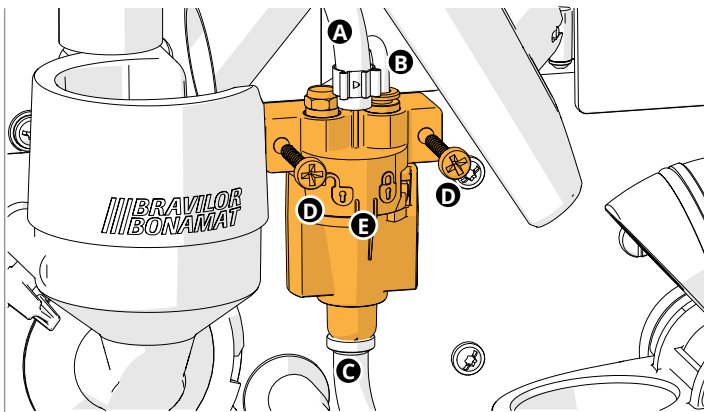
3.24 Remove the air restriction



Step 1

- open the door and lid
- close the "yellow" slider of the canister outlets
- take the instant canisters out of the machine
- use a combination-pliers to pull the air restriction **A** carefully from the milk foamer
- Make sure that the O-rings **B** are not kinked during reassembly

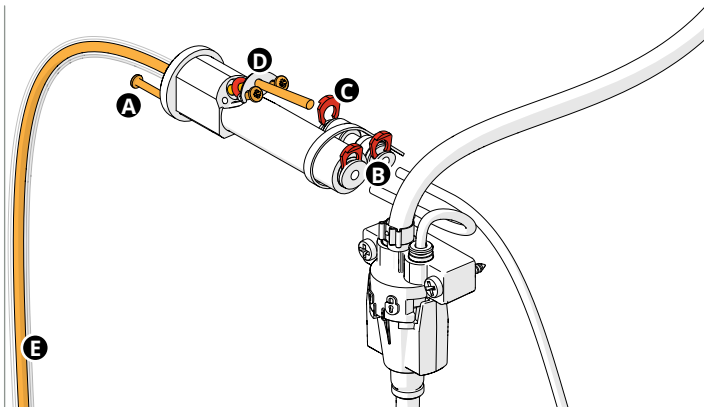
3.25 Remove the milk foamer



Step 1

- open the door and lid
- disconnect the steam hose **A**
- disconnect the milk hose **B**
- disconnect the outlet hose **C**
- remove the 2 screws **D**
- remove the milk foamer **E**

3.26 Replace the double milk suction hose



Step 1

- take out the canisters as in [Step 1](#) of [section 3.3](#)

Step 2

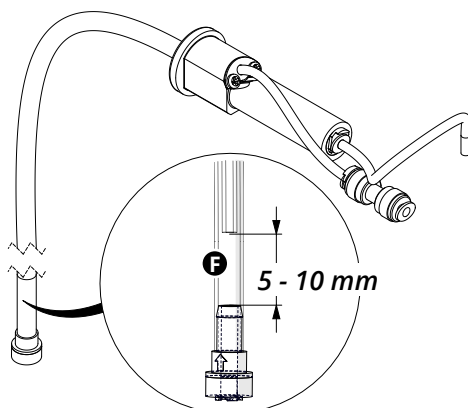
- remove the protective plate/service hatch as in [Step 2](#) of [section 3.3](#)

Step 3

- remove the screw **A** (outside on the left)
- disconnect the cold water hose and the milk hose **B** from the connector
- disconnect the milk supply hose **C**
- remove the 2 screws, bracket and O-ring **D**
- remove the double milk suction hose **E**

Remarks installing the milk supply hose:

- The red clips **B** and **C** may only be inserted after the hoses has been pushed all the way in.
- Adjust the inner hose **F** at indicated distance to non-return valve.



4. Trouble shooting

4.1 Machine errors

code	description	detection	suspected components
00000	communication error bus system	the bus systems circuit is interrupted	• cable between mainboard and touch screen
			• mainboard
			• touch screen
00001	canister motor runs insufficiently	no rotation of the canister motor detected by the software	• resistance in canister too high due to much powder in canister
			• canister motor
			• wiring
			• mainboard
00101	mixer motor runs insufficiently	no rotation of the mixer motor detected by the software	• mix system clogged
			• mixer motor
			• wiring
			• mainboard
00201	low-pressure pump runs insufficiently	light sensor receives not enough pulses for too long a time	• low pressure pump
			• blockage (scale) low pressure pump
			• encoder blocked
			• wiring
			• mainboard
00401	grinder runs insufficiently	the software has not received pulses from the hall sensor for too long a time	• grinder blocked, something between the grinder discs
			• grinder motor
			• hall sensor
			• wiring
			• mainboard
00402	grinder is incorrectly controlled	if a semiconductor on the mainboard gets defect the grinder runs unjustified	• mainboard
			• coffee (static) around the hall sensor
00701	filling process steam boiler takes too long	the water inlet valve of the steam boiler is opened for a short period and the electrode inside the steam boiler does not detect water	• mains water pressure too low (< 2 bar)
			• mains water supply not opened
			• inlet valve
			• scale
			• electrode
			• wiring

code	description	detection	suspected components
00702	steam boiler does not pressurize	the steam boiler does not get on pressure within an amount of time	• pressure safety switch activated
			• steam boiler heating element
			• relay
			• wiring
00703	steam boiler error	the electrode inside the steam boiler keeps measuring water whilst during some period milk related beverages are prepared ► <i>If this happens it could indicate that there's a problem in the water detection and the steam boiler could boil dry.</i>	• inlet valve
			• electrode
			• wiring
00705	steam boiler fills up 3 times without selection	the magnetic inlet valve of the steam boiler is opened 3 times within a short period and no drink has been selected, this indicates that there is a leak in the water system of the steam part of the machine	• steam valve leaks
			• leak in steam boiler
00706	the steam boiler builds up too much pressure during the filling process	the pressure rises too quickly, the software has to open the steam valve for a short time, but the pressure still remains too high ► <i>When the machine is switched on or when it comes out of Eco mode, pressure is built up in the steam boiler.</i>	• steam valve doesn't open (sticks or defect)
02001	filling process takes too long	the water inlet valve was open for 20 seconds in succession and the float did not rise	• water tap not opened
			• water supply hose kinked
			• water pressure too low
			• water flow too low
			• inlet valve
			• wiring
			• float
02002	fill up 3 times without selection	the magnetic inlet valve is opened 3 times within a short period and no drink has been selected	• leakage in the water system
			• float
			• machine moved without switching it off
02101	break temperature sensor boiler	a NTC measures a resistance that is higher than normal	• temperature sensor
			• wiring
			• mainboard

code	description	detection	suspected components
02102	short-circuit temperature sensor boiler	a NTC measures a resistance that is lower than normal	• temperature sensor • wiring • mainboard
02201	no pulse detection water selector sensor	the light sensor receives not enough pulses for too long a time	• scale inside water selector • motor water selector • light sensor • wiring • mainboard
02202	water selector in wrong position	the hot water selector cannot find its zero position	• scale inside water selector • water rotation disc
04301	rotation brewer does not move	the espresso brewer mechanism is not reaching the desired position	• brewer not mounted correct • brewer motor defect • wiring
04401	water counter gives no pulses	pulses from the flow meter have not been measured for too long a time or when both high pressure pumps do not work	• air in hoses • high pressure pumps • wiring • water counter
10001	general I/O error	the I/O module is reporting an error	• mainboard

4.2 Coin mechanism errors

code	description
07001	coin mechanism missing
07002	coin mechanism defective
07003	coin mechanism blocked
07004	coin mechanism sabotaged
07005	communication error coin mechanism
07006	general error coin mechanism
07101	error in cashless device

4.3 Machine messages

Message	Reason of the message	Procedure to reset the message	Check the following
empty waste bin	the amount of cups passed the set amount of cups that fit the waste bin	empty the waste bin, door switch needs to be open for 5 seconds and closed again, a reset message appears in the screen if the waste bin is emptied	> <i>process settings</i> > <i>waste bin counter</i>
the machine shows the milk cleaning system message	24 hours have passed since the last milk cleaning	perform the clean milk system program: > <i>maintenance</i> > <i>cleaning milk system</i> > <i>milk system cleaning</i>	non (this is a fixed setting)
	the machine has been turned off for 3 hours or more. When the machine is then turned on the timers of the coffee and milk boards are no longer synchronized and a milk cleaning must be performed		
the machine shows the clean brewer message	the machine has passed the set amount of cups or days for the clean brewer message	perform the clean brewer program: > <i>maintenance</i> > <i>cleaning brewer</i>	> <i>process settings</i> > <i>cleaning management</i> > <i>message cleaning brewer</i>
the machine shows the rinsing coffee machine message	the machine has passed the set amount of cups or days for the rinsing coffee machine message	perform the rinsing coffee machine program: > <i>maintenance</i> > <i>rinsing coffee machine</i>	> <i>process settings</i> > <i>cleaning management</i> > <i>message rinsing machine</i>
the machine shows the water filter replacement message	the amount of litres or month has past the set value for the water filter	manually reset the replace water filter message: > <i>maintenance</i> > <i>replace water filter</i>	> <i>process settings</i> > <i>water filter</i>
the machine shows the descale coffee system message	the amount of litres used by the machine has passed the amount of litres used for the coffee and instant system, this amount is determined by the setting of the hardness of the water in the machine	perform the descale procedure for the coffee system: > <i>maintenance</i> > <i>descale machine</i> > <i>descale coffee system</i>	> <i>process settings</i> > <i>descale management</i>
the machine shows the descale milk system message	the amount of litres used by the machine has passed the amount of litres for the milk, this amount is determined by the setting of the hardness of the water in the machine	perform the descale procedure for the milk system: > <i>maintenance</i> > <i>descale machine</i> > <i>descale milk system</i>	> <i>process settings</i> > <i>descale management</i>
the machine shows the 'enter the general PIN-code or 'service' menu PIN-code' message	a general pin code is set on the machine, this pin code needs to be entered when accessing the programming menu (maintenance excluded)	enter the general pin code or service menu pin code	> <i>machine settings</i> > <i>PIN code settings</i>
the machine shows the 'enter the 'service' menu PIN-code' message	a PIN code for the service menu is set on the machine, this pin code needs to be entered when accessing the service menu	enter the pin code for the service menu	> <i>machine settings</i> > <i>PIN code settings</i>
Energy-saving mode	The machine is not used for the amount of time that is set in the 'energy-saving mode'	touch the screen	> <i>process settings</i> > <i>energy-saving mode</i>

4.4 Other problems

In addition to the messages and errors present in the machine, a number of other problems may occur; these problems are described below.

4.4.1 Coffee related

Problem description	Possible cause	Check the following
coffee related drink to weak	almost out of coffee beans	• fill bean canister
	grinder calibration	• grinder calibration
	strength / contact time not correct	• adjust drink settings, strength and contact time coffee
	brewer issue	• brewer and brewer process
coffee related drink to strong	grinder calibration	• grinder calibration
	strength / contact time not correct	• adjust drink settings, strength and contact time coffee
only hot water is dispensed when a coffee drink is selected	out of coffee beans	• fill bean canister
less coffee in the cup than normal	brewer leaking	• brewer and brewer process
	high pressure pump not calibrated	• high pressure pump calibration
not enough crema on coffee	drink setting not correct	• adjust drink settings
	grinder setting	• adjust grinder
	grinder calibration	• calibrate grinder
	brewer not cleaned	• run cleaning brewer program with coffee cleaning pill
	coffee outdated, date expired	• use new coffee beans

4.4.2 Instant ingredients related

Problem description	Possible cause	Check the following
instant related drink to weak	almost out of powder in ingredient canister	• ingredient container
	strength not correct	• adjust drink settings, strength instant
instant related drink to strong	strength not correct	• adjust drink settings, strength instant
no water dosed (instant and hot water related)	water level to low	• float
	hose blocked (scale)	• all related hoses
mixing bowl clogs up	to much powder used	• check the advise dosing of the packaging of the powder, use a scale to weight the amount of powder used
	low pressure pump calibration not correct	• calibrate the low pressure pump
	water selector gives water in wrong outlet	• water selector
	hose blocked	• all related hoses
mixing bowl overflows water	low pressure pump calibration to high	• calibrate the low pressure pump
	mixing bowl clogged up	• mixing bowl
mixing bowl leaks	mixing bowl seal worn	• seal mixing bowl

Problem description	Possible cause	Check the following
no foam on instant drink	mixer speed not correct	• adjust drink setting, mixer speed
	type of instant ingredient	• try a different instant ingredient
to much foam on instant drink	mixer speed not correct	• adjust drink setting, mixer speed
water dispensed in wrong outlet	scale in water selector	• clean water selector
	hose blocked	• all related hoses

4.4.3 Milk related

Problem description	Possible cause	Check the following
no milk dosed, only steam	out of milk	• replace milk carton or fill the milk reservoir
	milk hose kinked	• replace milk hose
	milk level to low	• milk level (The correct milk level can be seen on side panel, behind the door)
almost no milk foam	steam hose kinked	• steam hose (from steam valve to milk foamer)
	air restriction sealing not good	• air restriction
	air restriction blocked	• air restriction
no milk and no steam dosed	steam valve doesn't open	• steam valve
	steam hose blocked/kinked	• steam hose (from steam valve to milk foamer)
milk splashes a lot when dosed	milk not cold	• milk temperature (+/- 5°C)
	milk level to low	• milk level (The correct milk level can be seen on side panel, behind the door)
	milk hose not the correct length	• milk hose
	air restriction sealing not good	• air restriction
	steam hose not correctly installed	• adjust the steam hose, see SI 220301
milk drink greyed out, can't be selected (no message displayed)	connection problem between control board milk foamer, interface board and mainboard	• connection cable between control board milk foamer and interface board
		• control board milk foamer
		• Interface board
milk drinks greyed out, cleaning message in the display	perform a milk system cleaning cycle	• advise the responsible person that is in charge of the coffee machine that a milk cleaning cycle is advised
the machine displays more than 1 time a day the milk cleaning cycle	the machine is turned off for a longer period, 3 hours or more	• don't turn the machine off but use the Eco modus setting

4.4.4 Machine related

Problem description	Possible cause	Check the following
machine doesn't turn on	no power	• check power supply • check power cable connection
	main switch off	• main switch
	internal fuse blown	• replace fuse
	transformer issue	• transformer
	wiring issue	• internal wiring
	mainboard issue	• mainboard
	touch screen issue	• touch screen
ventilator doesn't turn	ventilator blocked	• ventilator
	ventilator motor defect	• ventilator motor
drinks blocked and temperature doesn't raise	boiler not heating	• temperature safety device
		• heating element
		• temperature sensor
		• wiring
		• mainboard
heating message in the display but the temperature doesn't rise	boiler not heating	• temperature safety device
		• heating element
		• mainboard
coffee drinks greyed out, instant only drinks and hot water can be selected	temperature not yet on the desired temperature for coffee	• nothing, boiler needs to heat further to reach the desired temperature for coffee
	temperature sensors switched around on the mainboard	• temperature sensor connection on the mainboard
	temperature safety device not functioning correct	• temperature safety device
the waste bin needs to be emptied multiple times a day	the machine is used for more drinks than specified	• consider to use the 'raiser set' which has a bigger waste bin and drip tray