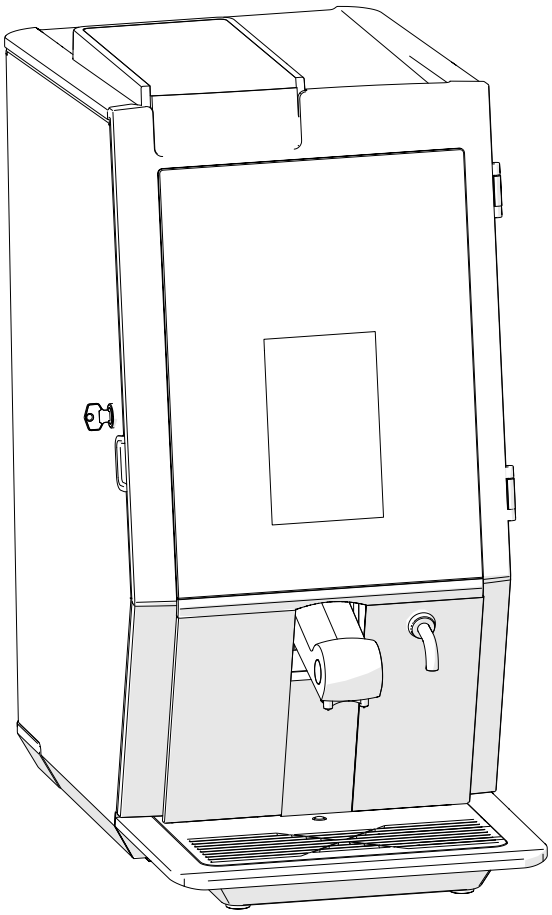
BRAVILOR BONAMAT

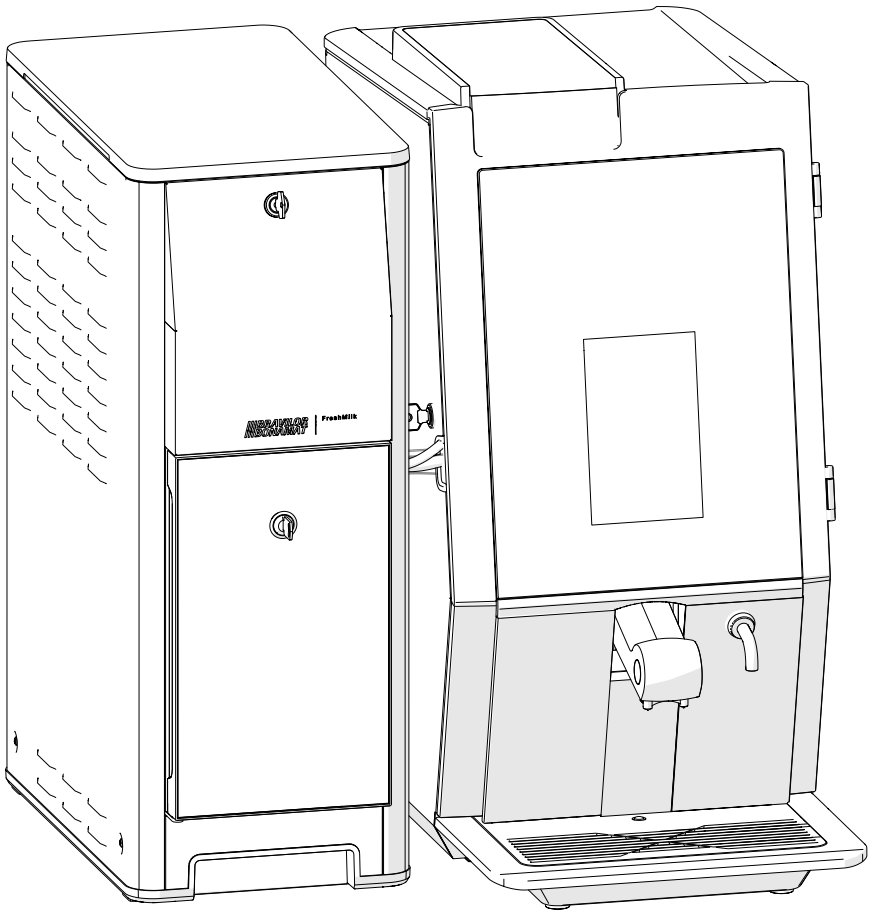
TECHNICAL MANUAL



Esprecious
(from version 2.0)

and

FreshMilk
(from version 3.0)



Technical manual - English

Original document by manufacturer
version 1.0 | 2023-07-21

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The information in this document is based on data that was available at the time the design, the material characteristics and the operating methods were published, meaning that this document is subject to change.
For this reason, the instructions are merely a guideline for the installation, maintenance and repair of the machine shown on the front cover.
This document applies to the standard version of this machine.
The manufacturer therefore declines all liability for any damage arising from specifications that deviate from the standard version of the machine delivered to you.
This document has been compiled with the utmost care. However, the manufacturer cannot be held liable for any errors it contains or the consequences thereof.

BRAVILOR BONAMAT

Table of contents

1. Installation requirements

To enable a smooth and simple installation of the Esprecious please ensure the customer has the following prepared:

- Ensure the electrical supply is situated within 1 meter of the machines proposed location.
- Ensure the power supply is correct for the ordered machine:
- Esprecious
  - » Standard : 1x 230V, 2190W, 10amp (or higher)
  - » North America : 1x 120V, 1440W, 16amp (or higher)
- Ensure that the machine fits the proposed location.
- The water supply must be cold potable (drinking) water terminating in a shut off valve with a male 3/4" connection. This must be within 1 meter of the machines proposed location.
- The water pressure must be between 1 - 10 bar.
  NOTE: Water pressure must be measured as standing pressure AFTER any fitted water filtration.
- The machine must be immediately available to the engineer within a reasonable distance of the proposed install site.

What the engineer can do:

- Upon arrival the fully trained engineer will complete the following;
- Unpack the machine and inspect for transit damage.
- Install the machine in the proposed location.
- Connect the power and water supply to the machine.
- Connect a water filtration system if ordered.
- Commission the machine and complete a function test ensuring full operation.
- Set the machine up to a standard recipe if no pre set recipe has been specified in advance.
- Make adjustments to beverages taste and size (based on the person on site presented as the management representative).
- Setup the recommended dosage of the soluble ingredient of each drink.
- Check if the water volume dosage is correct, if not, a calibration must be performed.
- Train staff on machine maintenance, cleaning and operation.
- Leave the area tidy .

► *Always follow the local and national safety regulations and standards for electrical devices during installation.*

► *Read the safety book carefully. The safety book is provded with the machine or can be downloaded from the Bravilor Bonamat site*

Ingredients you may need:

- Ingredients should be selected based on taste profiles and site requirements.
  We do however provide the following direction:
  - » Roasted whole coffee beans.
  - » Cacao and/or topping (or other soluble ingredient)*
  - » UHT- milk (Esprecious 11L and Esprecious 21L only)

    * Only use instant ingredients that are suitable for vending machines (contains a flowing agent).

    * Use the recommended dosage as indicated on the packaging.

► *Always follow the local and national safety regulations and standards for electrical devices during installation.*

► *The contents of the safety booklet supplied with the machine must be known to both the installer and the customer.*

► *The operator instructions can be downloaded from the Bravilor Bonamat site.*

2. Spare parts replacement Esprecious

► *Precautionary measures*

» Always unplug the machine to turn off the power before opening it.
Note: Beware of electric shock as the machine's capacitors take some time to fully discharge.
» Turn off the water tap and disconnect the water supply hose.
» The service area can have sharp edges, wear gloves and long sleeves.
» When the Esprecious is drained, hot water comes out of the drain hose, therefore take protective measures.

Necessities:

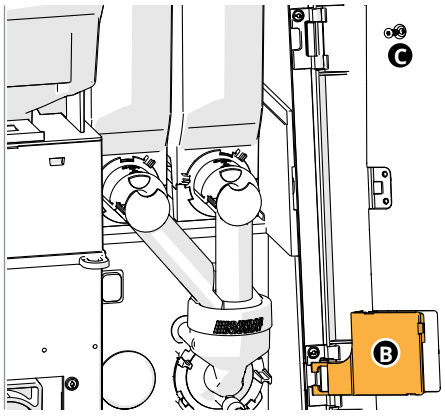
- Philips screwdriver
- screwdrivers torx 10 and 15
- small adjustable wrench
- open-end wrench / socket wrench: M3 and M4
- curved nose pliers
- combination-pliers

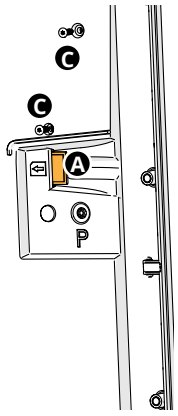
Reassembly remarks:

- see the exploded views for the service part numbers
- see the electric diagram *700.406.742* for the wiring connections and bus cable system
- see the hose schematics for the hose connections

► *The (cleaning) animations can be found on the Esprecious (L) website. These animations can also be found on our You-tube channel: https://www.youtube.com/user/BravilorBonamatBV/playlists*

2.1 Remove the service panel



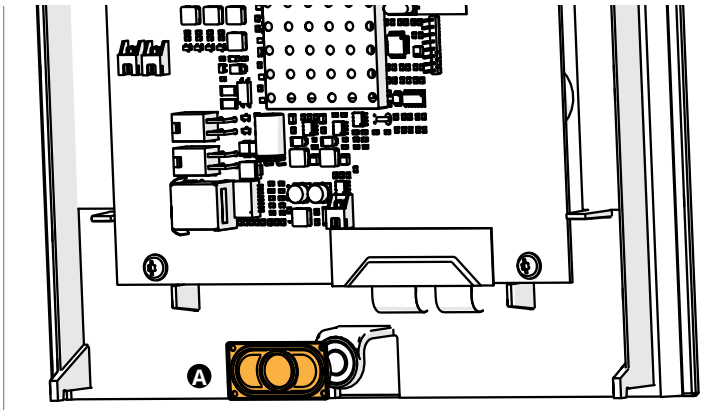


Step 1
- open the door
- remove the SD card Ⓐ, if present
- disconnect the wiring cover Ⓑ
- disconnect the wiring
- hold the touch screen and remove the 3 screws Ⓒ on the inside of the door
- pull the service panel towards you

► *The service panel is delivered without software, you need to download the software yourself on an SD-card from our website. When installing a new service panel or updating the software on an Esprecious you need to be sure that you use the correct software, this because we have different software versions available.*

- go to www.bravilor.com and log in with your login name and password
- select "Espresso machines" and then the corresponding Esprecious model
- download the software on the SD card
- mount the new service panel
- insert the SD card with the software in the machine (SD-slot in the door)
- set the time and date
- enter the serial number (see ID−plate − 02000******)
- the software is now loaded from the SD card (this may take several minutes)
- the machine will start up with the installation program
- remove the SD card
- run the complete installation program
- the machine is now ready for use again

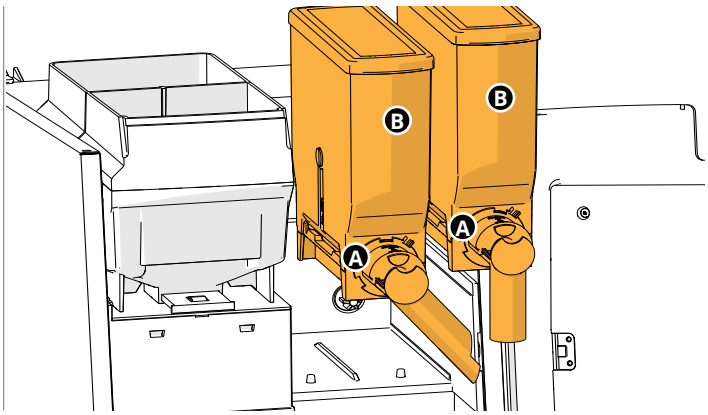
2.2 Remove the speaker



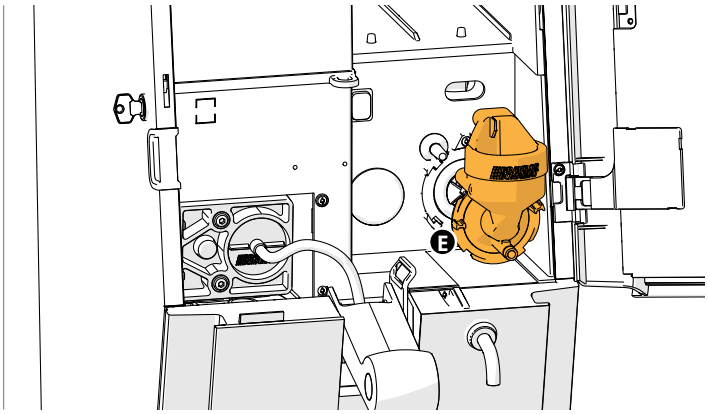
Step 1
- remove the serice panel as in Step 1 of section 2.1

Step 2
- disconnect the wiring
- pull the speaker towards you Ⓐ

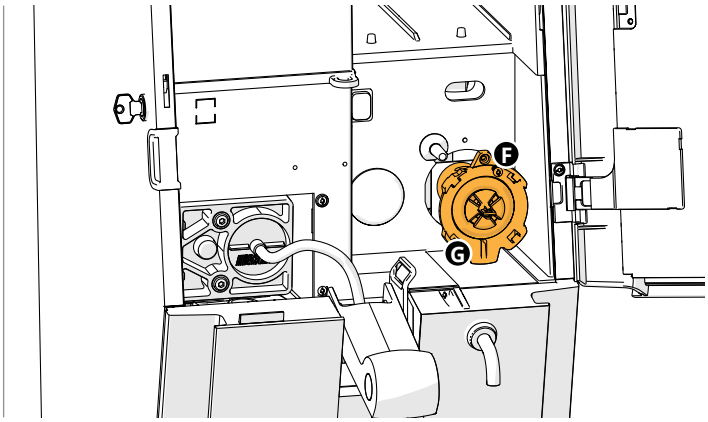
2.3 Remove the mixer motor



Step 1
- open the door and lid
- close the “yellow” slider of the canister outlets Ⓐ
- take the instant canisters out of the machine Ⓑ

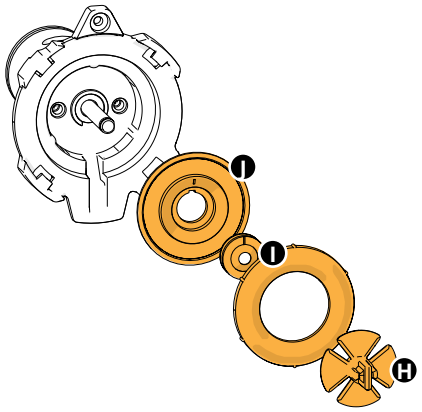


Step 3
- disconnect the hose from the mix unit
- turn the fixation ring Ⓔ counter-clockwise
- remove the mix unit



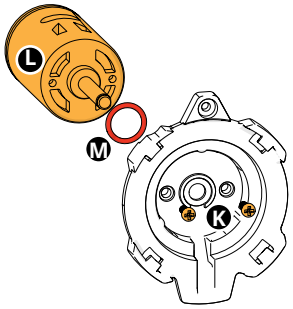
Step 4
- remove the screw Ⓕ of the mixer motor plate
- detach the mixer motor plate Ⓖ and carefully and pull it towards you
- disconnect the connector from the mixer motor

► *When mounting, make sure that the bus cabling is correctly connected red to red and white to white, see the wiring diagram.*



Step 5
- remove the mixer H
- remove both seals I and seal holder J

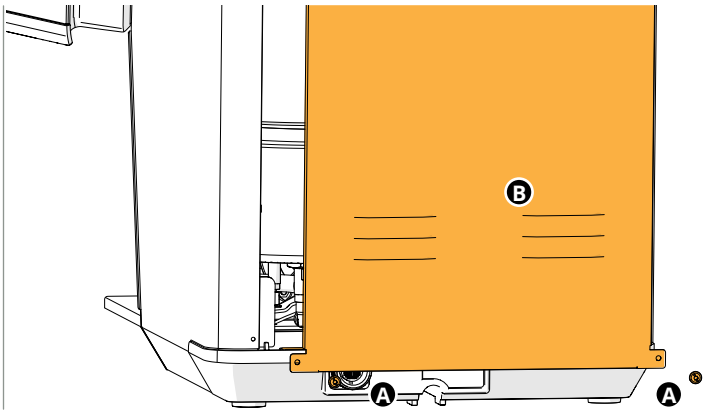
► *Consider to exchange the seals.*



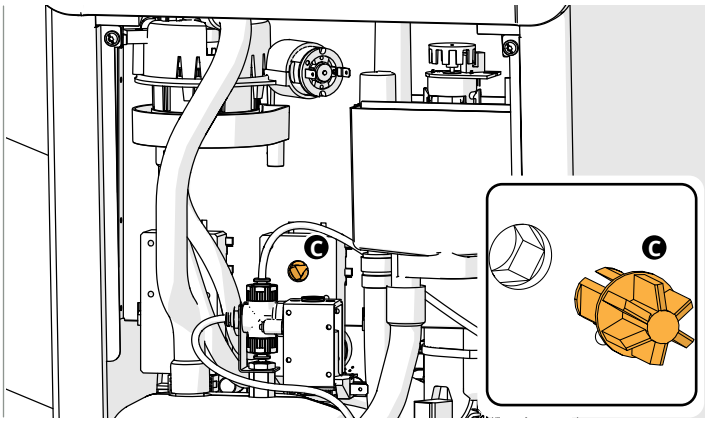
Step 6
- remove the 2 screws K
- remove the mixer motor L

► *Consider to exchange the O-ring M*

2.4 Remove the canister motor

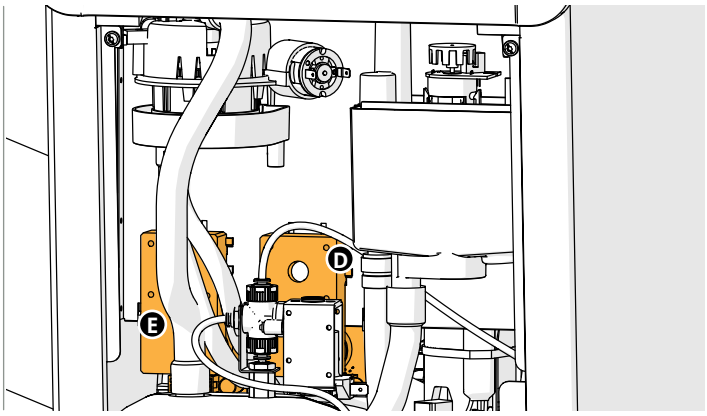


Step 1
- remove the 2 screws A of the back panel
- remove the back panel B



Step 2
- take out the canisters as in Step 1 of section 2.3

Step 3
- push the drive shaft C forward out of the gearbox

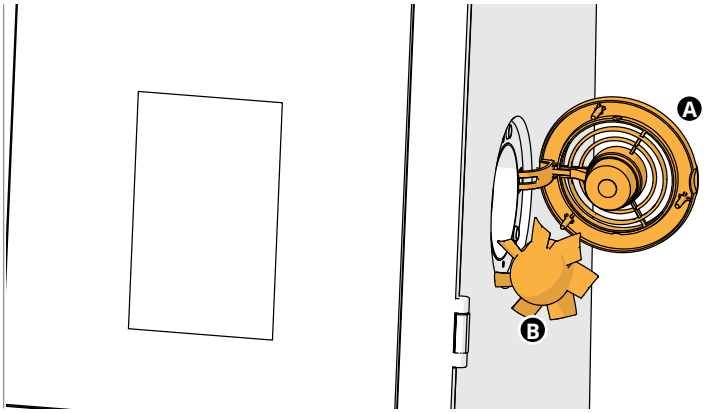


Step *4*
- unhook the canister motors (up a little and towards you)
- disconnect the wiring

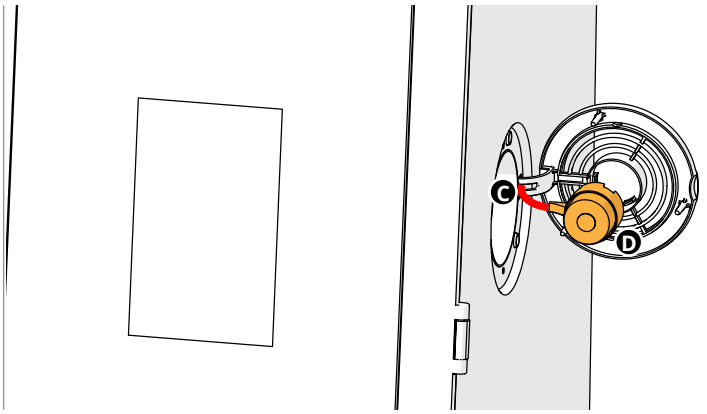
► *Remove the right motor* Ⓓ *first to create space, if the left motor* Ⓔ *needs to be replaced.*

► *When reassembling, make sure that the bus cabling is correctly connected (red to red and white to white), see the wiring diagram.*

2.5 Remove the fan motor



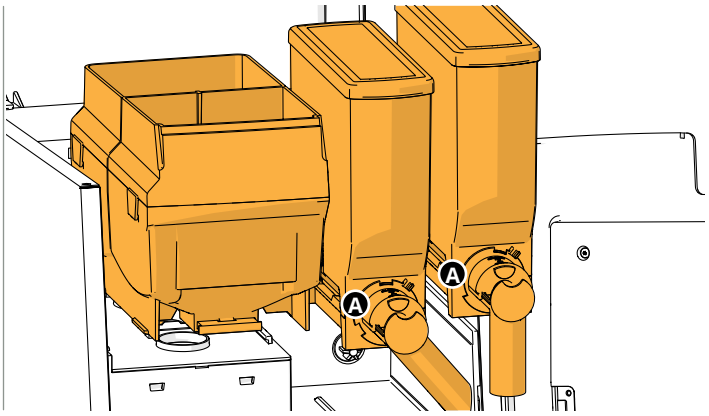
Step 1
- open the fan grid Ⓐ
- remove the fan rotor Ⓑ



Step 2
- remove the back panel as in Step 1 of section 2.4

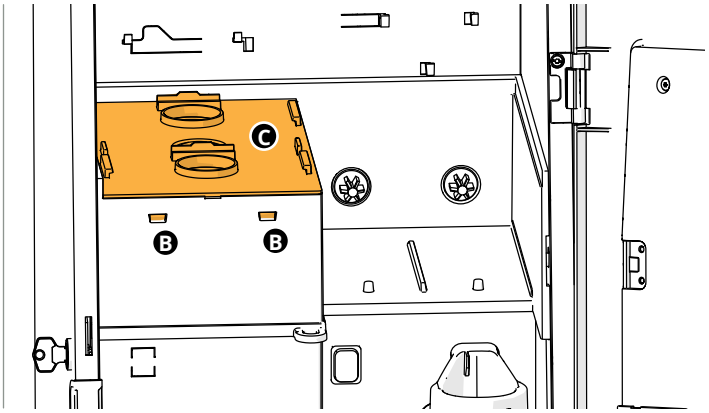
Step 3
- disconnect the connector in the wiring
- lead the wiring with the connector through the opening Ⓒ to the outside
- remove the fan motor Ⓓ

2.6 Remove the complete grinder

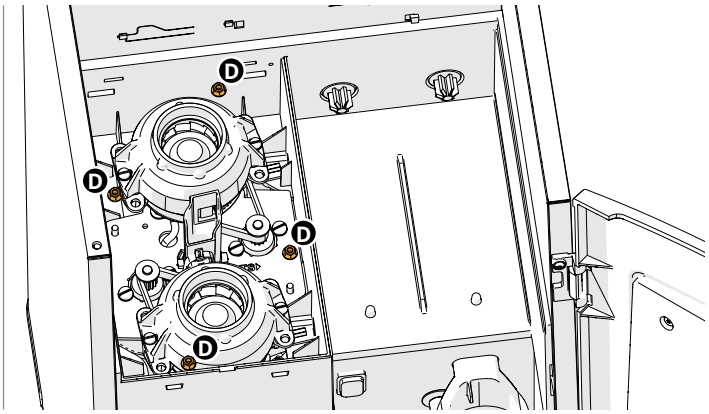


- ► *Use a vacuum cleaner to remove all existing coffee beans.*
- ► *Wear gloves to protect your hands.*
- ► *Always replace both disks at the same time.*
- ► *When reassembling the machine, ensure that the grinding discs do not touch before switching on the machine.*

Step 1
- open the door and lid
- close the “yellow” slider of the canister outlets Ⓐ
- take out all the canisters



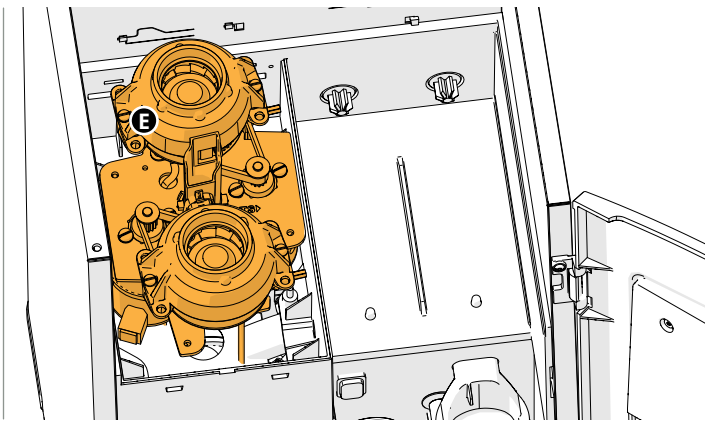
Step 2
- press the snap fingers Ⓑ and lift the lid
- remove the protective lid Ⓒ



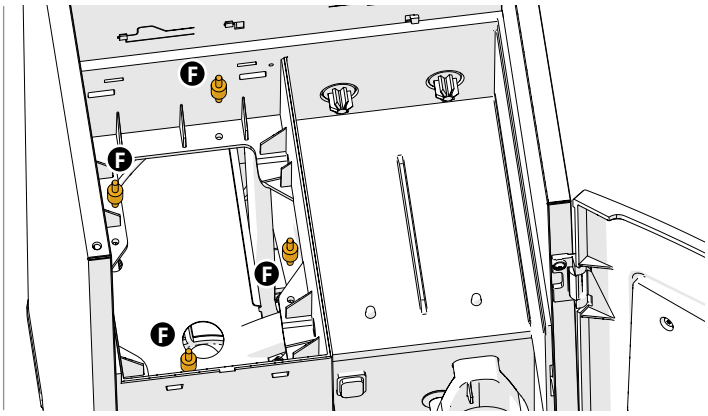
Step 3
- remove the back panel as in Step 1 of section 2.4

Step 4
- disconnect the wiring of the grinder from the mainboard (1 connector for each motor and 1 for each Hall sensor)

Step 5
- remove the 4 bolts Ⓓ



Step 6
- remove the complete grinder Ⓔ



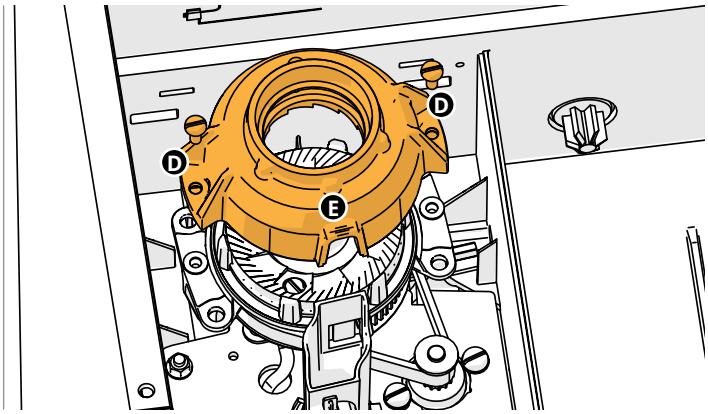
Step 6

► *The vibration dampers could be damaged during this procedure.*

- consider to exchange the vibration dampers Ⓕ

2.7 Remove grinder parts

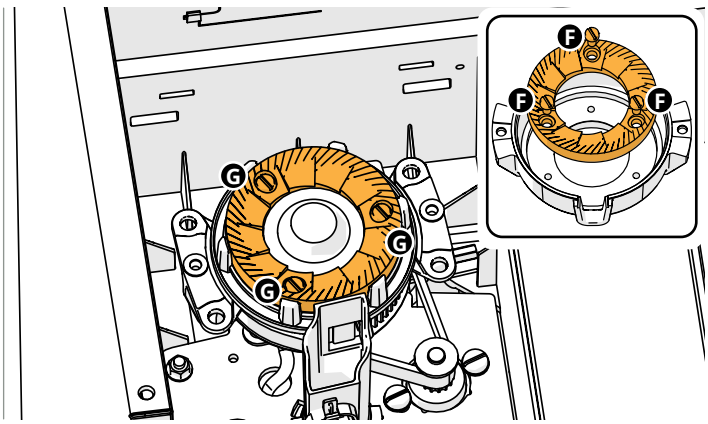
2.7.1 Remove the grinding discs



Step 1
- remove the canisters as in Step 1 of section 2.6

Step 2
- remove the protective lid as in Step 2 of section 2.6

Step 3
- remove the 2 screws Ⓓ of the grinding cap
- remove the cap Ⓔ, with the upper grinding disc



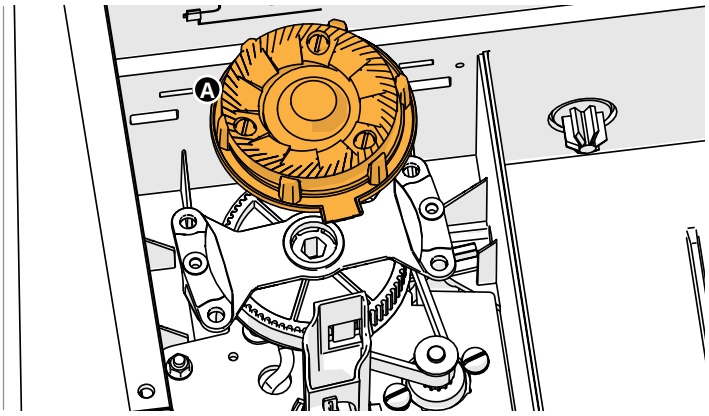
Step 4
- remove the 3 screws Ⓕ of the upper grinding disc and remove it
- remove the 3 screws Ⓖ of the lower grinding disc and remove it

► *Press and hold the drive belt slightly to hold the grinding wheel in place, then loosen the screws.*

► *Always replace both grinding discs at the same time*

► *Check section 2.7.4 Reassembly remarks on p.8.*

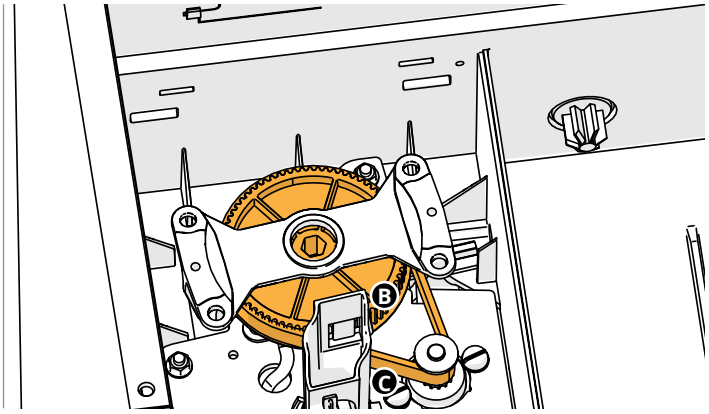
2.7.2 Remove the grinder gear wheel and drive belt



Step 1
- remove the canisters as in Step 1 of section 2.6

Step 2
- remove the protective lid as in Step 2 of section 2.6

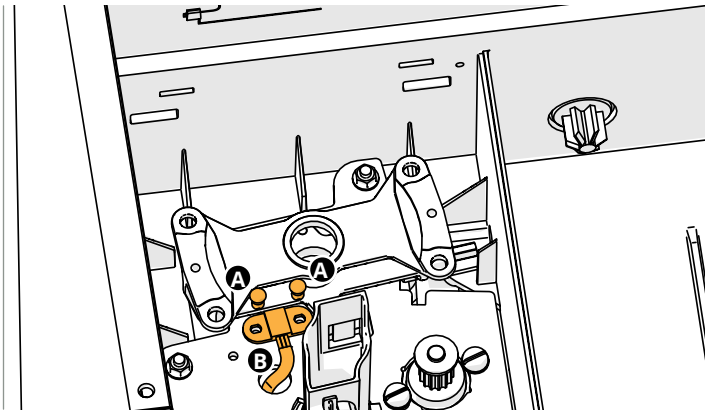
Step 3
- remove the grinding cap as in Step 3 of section 2.7.1
- remove the rotating burr carrier and the lower grinding disc Ⓐ all at once



Step 4
- slide the gear wheel Ⓑ and belt Ⓒ out from under the bracket
- remove the gear wheel and drive belt

► *Check section 2.7.4 Reassembly remarks on p.8.*

2.7.3 Remove the Hall sensor

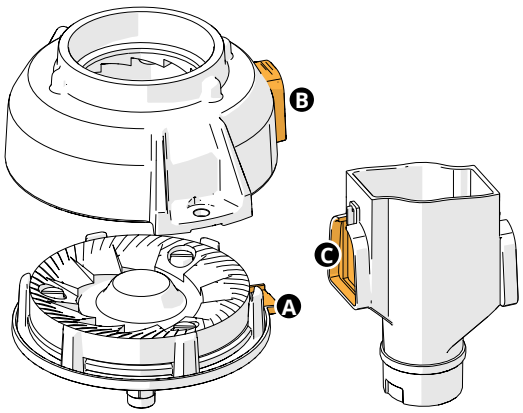


Step 1
- remove the grinder gear wheel and drive belt as in section 2.7.2

Step 2
- remove the back panel as in Step 1 of section 2.4
- disconnect the wiring (Hall sensor) from the mainboard

Step 3
- remove the 2 rivets Ⓐ
- remove the Hall sensor Ⓑ

2.7.4 Reassembly remarks

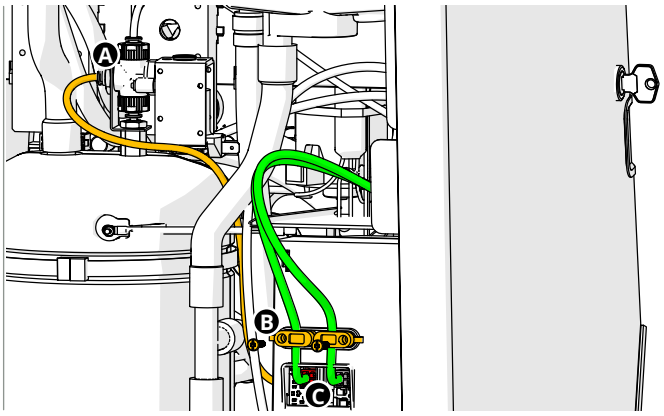


► *Make sure Ⓐ is on the base of Ⓒ*

► *Make sure Ⓑ is placed in Ⓒ*

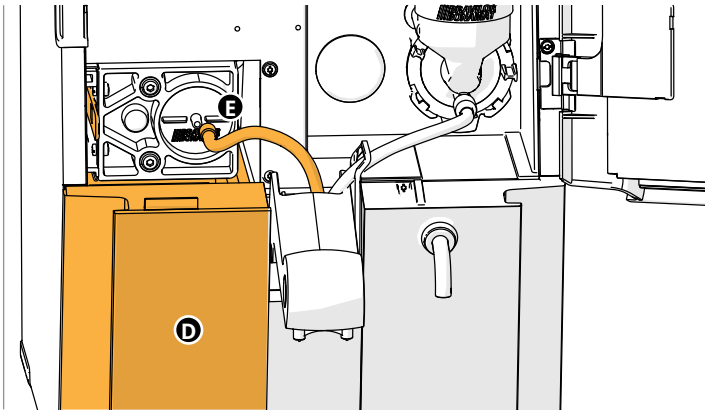
► *Test the grinding degree after installation and make sure that the grinder is not leaking ground coffee.*

2.8 Remove the brewer



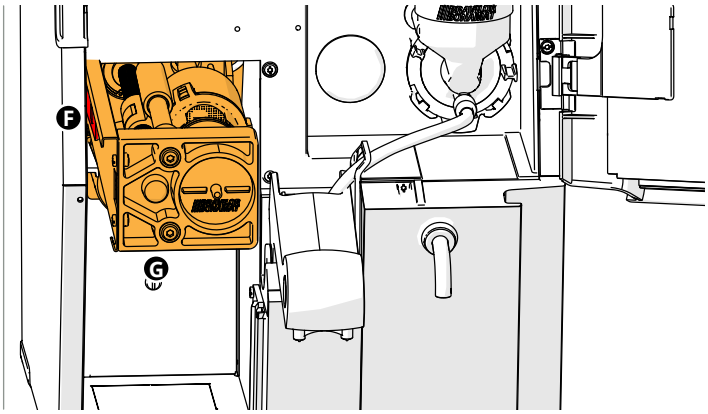
Step 1
- remove the back panel as in Step 1 of section 2.4

Step 2
- disconnect the hose Ⓐ from the hot water valve
- remove 2 screws Ⓑ from both pull reliefs
- disconnect both bus cables



Step 4
- pull the waste bin Ⓓ forward to remove it

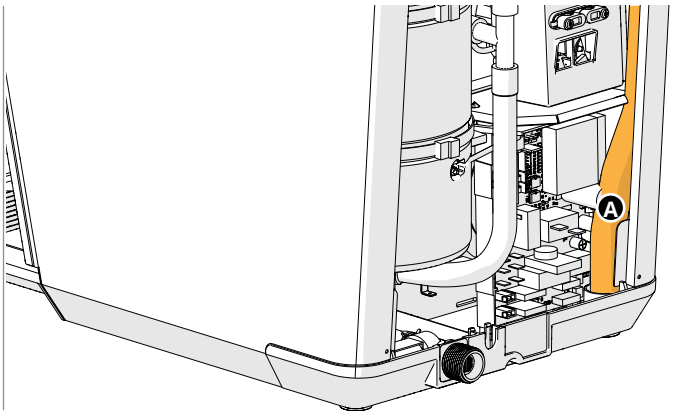
Step 5
- disconnect the hose Ⓔ from the brewer



Step 6
- push the click finger Ⓕ to the left and pull the brewer to the front, push the click finger again (use if necessary a screwdriver) and pull the brewer to the front
- take the brewer Ⓖ out the machine

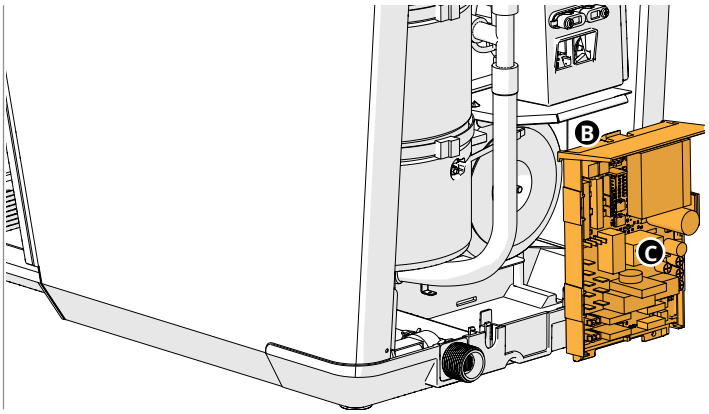
► *A maintenance kit is available for the periodic replacement of the brewer components, the instructions of which are shown in an animation.*

2.9 Remove the mainboard



Step 1
- remove the back panel as in Step 1 of section 2.4

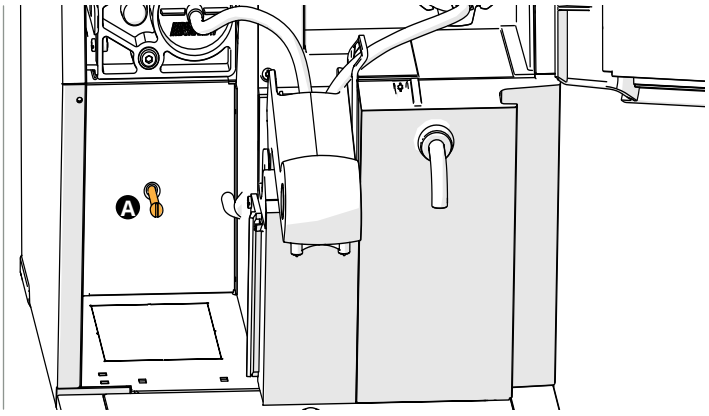
Step 2
- remove the overflow hose Ⓐ to create space
- disconnect the wiring



Step 2
- press the snap finger Ⓑ and remove the backet with mainboard Ⓒ
- detach the mainboard from the bracket

► *When reassembling, make sure that the wiring and bus cabling are correctly connected (red to red and white to white), see the wiring diagram.*

2.10 Remove the transformer / fuse

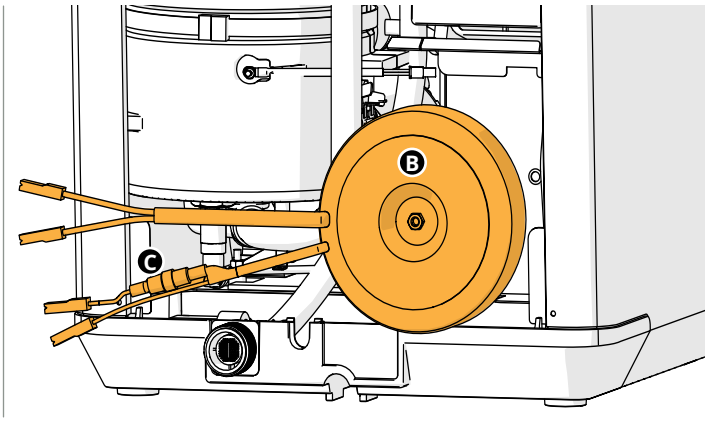


► ***The fuse Ⓒ can be changed without removing the mainboard and the transformer.***

Step 1
- remove the backet with mainboard as in section 2.9

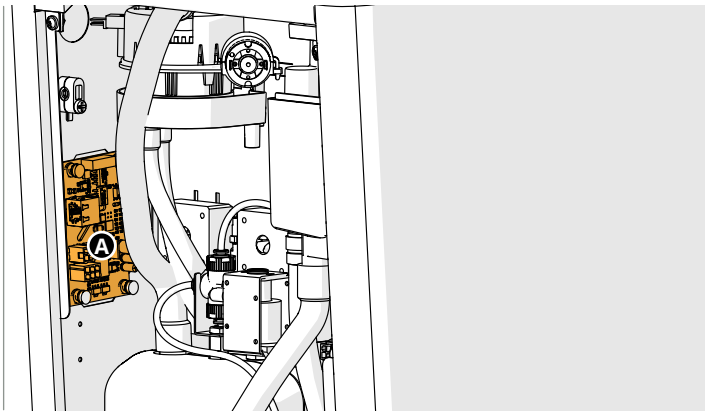
Step 2
- remove the waste bin as in Step 4 of section 2.8

Step 3
- remove the bolt Ⓐ



Step 3
- remove the transformer Ⓑ
- replace the fuse Ⓒ

2.11 Remove the (optional) interface board



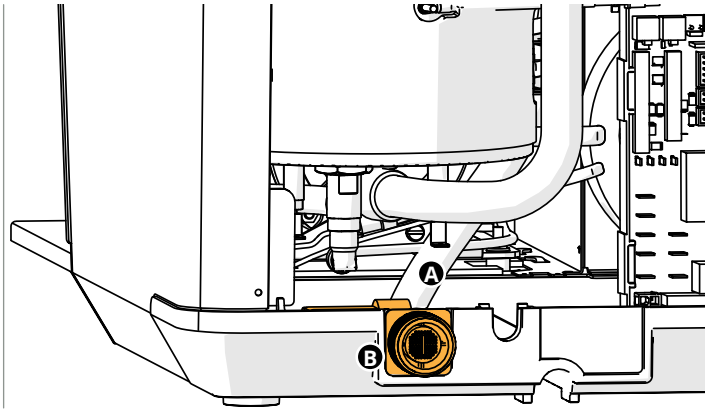
Step 1
- remove the back panel as in Step 1 of section 2.4

Step 2
- disconnect the wiring
- remove the interface board Ⓐ

► *The interface board is used with the Esprecious11/12 to link a payment system / telemetry and is optional. The Esprecious11L/21L includes the interface board as standard, for communication with the FreshMilk unit.*

► *See 700.406.742 for bus cable system connections.*

2.12 Remove the inlet valve

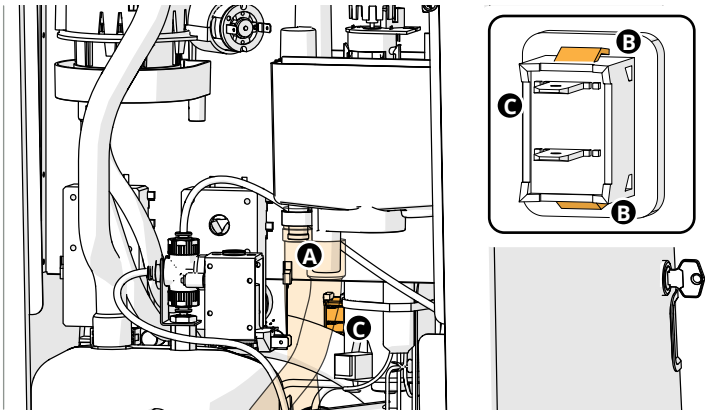


Step 1
- remove the back panel as in Step 1 of section 2.4

Step 2
- disconnect the wiring
- disconnect the water connection hose
- push the inlet valve upward
- disconnect the hose Ⓐ to the pump float tank
- remove the inlet valve Ⓑ

► *Some water may come out of the hose.*

2.13 Remove the on/off switch



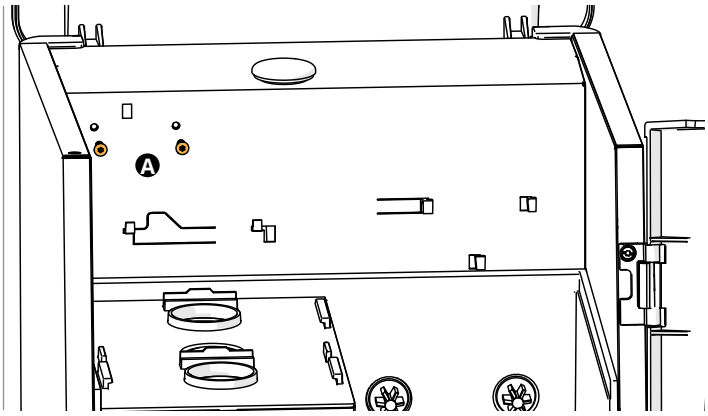
Step 1
- open the door
- remove the back panel as in Step 1 of section 2.4

► *The switch is situated behind the hoses Ⓐ .*

Step 2

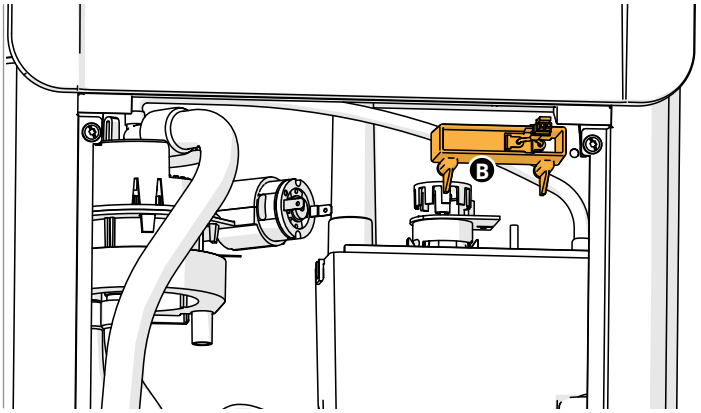
► *Be carefull: sharp edges.*
- pinch the 2 snap fingers Ⓑ together and push the switch forward
- disconnect the wiring (at the front)
- remove the on/off switch Ⓒ

2.14 Remove the safety switch bean canister



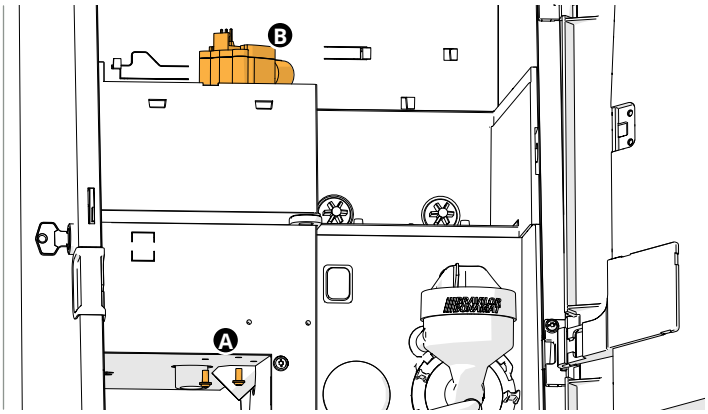
Step 1
- open the door
- remove the canisters as in Step 1 of section 2.6

Step 2
- remove the 2 screws Ⓐ



Step 3
- remove the back panel as in Step 1 of section 2.4
- disconnect the wiring
- unhook the bracket Ⓑ with safety switch
- remove the safety switch

2.15 Remove the water counter



Step 1
- remove the complete grinder as in section 2.6

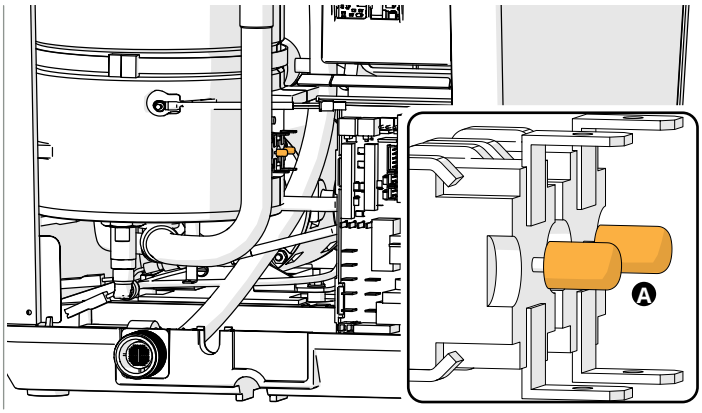
Step 2
- remove the brewer as in section 2.8

Step 2
- disconnect the wiring
- remove the 2 screws Ⓐ under the water counter
- disconnect the 2 thin hoses
- remove the water counter Ⓑ

2.16 Remove the boiler (parts)

► *The boiler and their parts can be hot.*

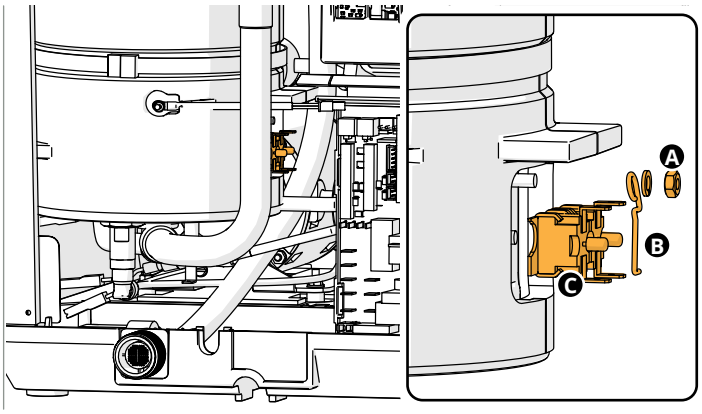
2.16.1 Reset the boiler thermostat



Step 1
- remove the back panel as in Step 1 of section 2.4

Step 2
- push both switches Ⓐ to reset

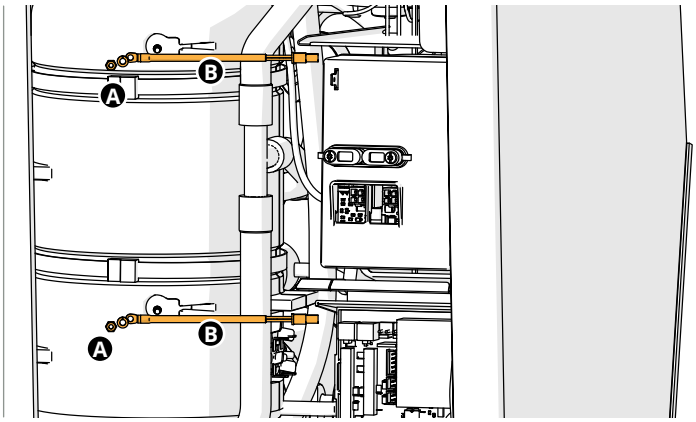
2.16.2 Remove the thermostat



Step 1
- remove the back panel as in Step 1 of section 2.4

Step 2
- disconnect the wiring
- remove the bolt of the thermostat Ⓐ
- remove the bracket Ⓑ
- remove the thermostat Ⓒ

2.16.3 Remove the temperature sensor



Step 1
- remove the back panel as in Step 1 of section 2.4

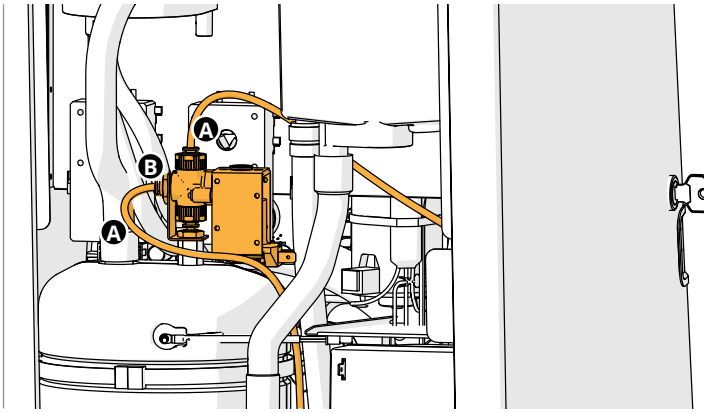
Step 2
- disconnect the wiring from the mainboard
- remove the bolt Ⓐ of the temperature sensor
- remove the temperature sensor Ⓑ

► *Make sure the NTC sensors are plugged into the right position on the mainboard after installation.*

2.16.4 Remove the hot water valve

► *When the boiler is drained, hot water comes out of the drain hose, therefore take protective measures.*

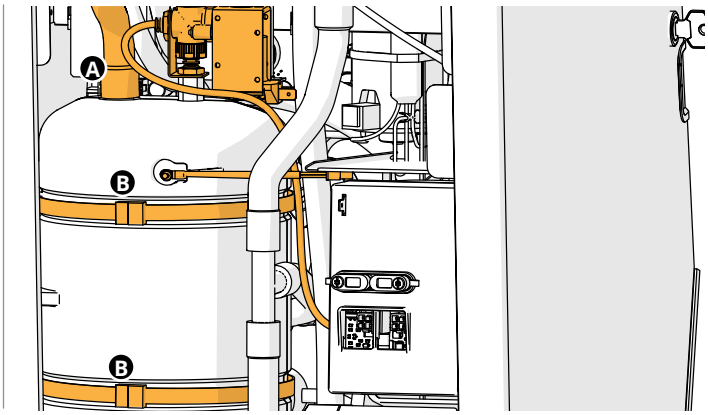
Step 1
- remove the drip tray
- pull out the drain hose Ⓐ
- place a container under the drain hose Ⓑ
- remove the tightening plug Ⓒ
- wait until all the water has drained out of the boiler
- replace the tightening plug



Step 2
- remove the back panel as in Step 1 of section 2.4

Step 3
- disconnect the wiring
- disconnect the 2 thin hoses Ⓐ
- loosen the bolt Ⓑ
- remove the hot water valve

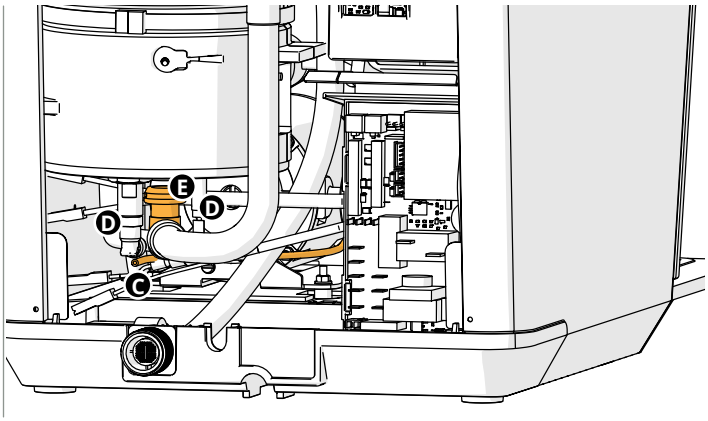
2.16.5 Remove the boiler



Step 1
- drain the boiler as in Step 1 of section 2.16.4

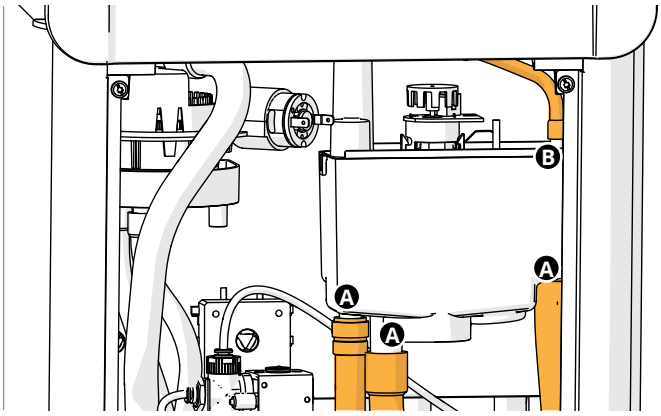
► *When the boiler is drained, hot water comes out of the drain hose, therefore take protective measures.*

Step 2
- disconnect the wiring of the thermostat
- remove the temperature sensors from the boiler as in section 2.16.3
- remove the hot water valve as in section 2.16.4
- disconnect the hose on top of the boiler Ⓐ
- loosen the 2 metal boiler clamps Ⓑ and move the boiler up



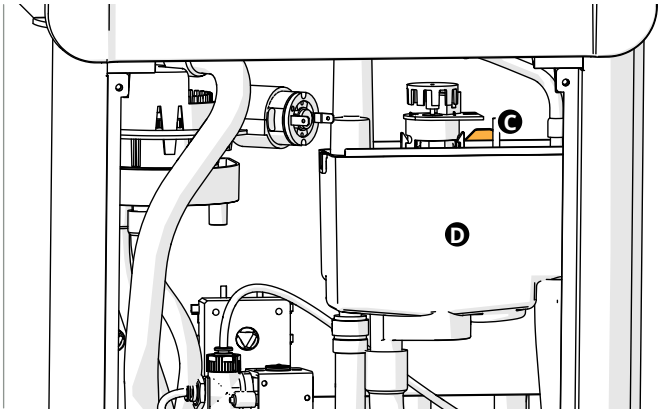
Step 3
- disconnect the pressure hose Ⓒ and wiring of the elements Ⓓ underneath the boiler
- pull the boiler supply Ⓔ out of the boiler
- open the 2 metal boiler clamps to remove the boiler
- remove the isolation parts

2.17 Remove the pump float tank



Step 1
- drain the boiler as in Step 1 of section 2.16.4

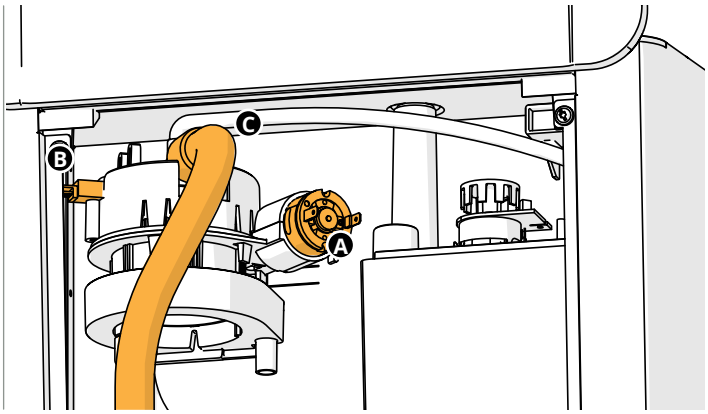
Step 2
- disconnect the connector of the float from the wiring
- remove the descaler inlet cap
- disconnect the 3 hoses underneath the float tank Ⓐ
- disconnect the aeration hose Ⓑ on top of the float tank
- disconnect the wiring from the pump



Step 3
- push the locking pawl Ⓒ forward
- move the pump float tank Ⓓ to the left to unlock it
- remove the pump float tank

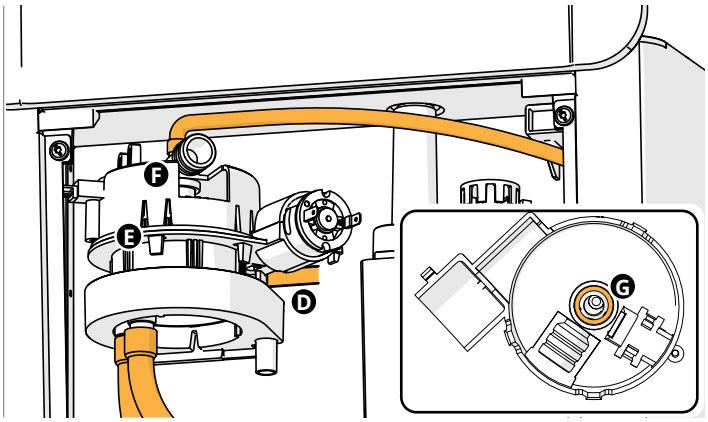
► *First remove the positioning disc to take out the pump motor.*

2.18 Remove the water selector



Step 1
- drain the boiler as in Step 1 of section 2.16.4

Step 2
- disconnect the wiring from the motor Ⓐ
- disconnect the wiring from the light sensor Ⓑ
- disconnect the hot water supply hose Ⓒ

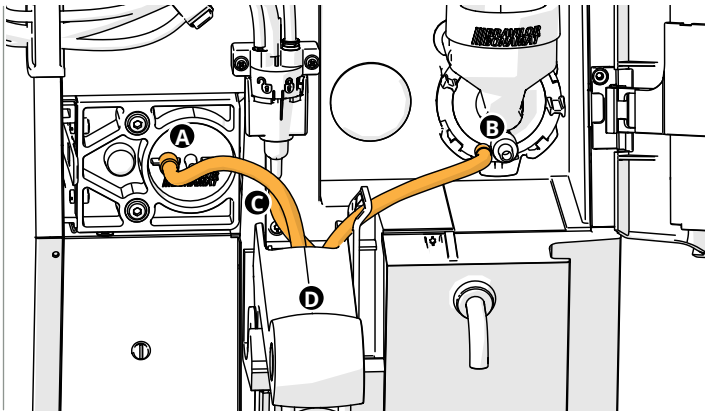


Step 3
- push the locking pawl Ⓓ forward
- move the water selector Ⓔ to the right to unlock it
- disconnect the aeration hose Ⓕ

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

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

2.19 Remove the beverage outlet

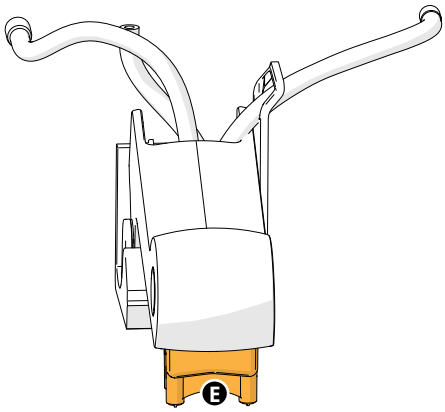


Step 1
- remove the waste bin

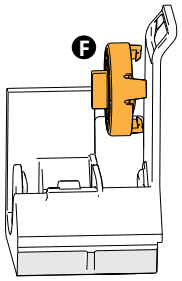
Esprecious 11 / 12 / 22
- remove the outlet hoses from the brewer Ⓐ and mix unit Ⓑ

Esprecious 11L / 21L
- remove the outlet hoses from the brewer Ⓐ, mix unit Ⓑ and frother Ⓒ

Step 2
- slide the beverage outlet Ⓓ to the left
- remove the complete beverage outlet

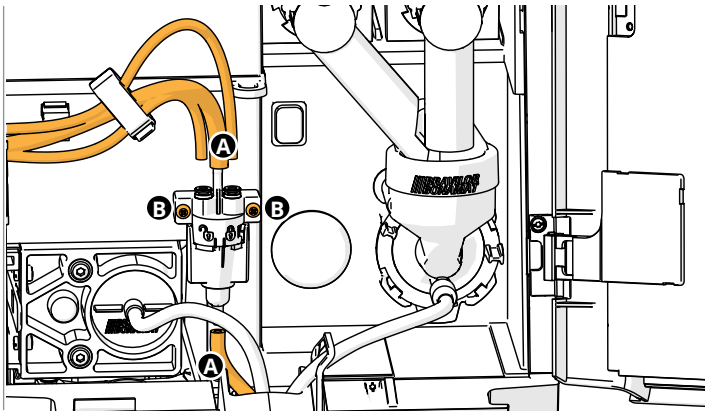


Step 3
- pull the tray Ⓔ downwards
- remove the hoses



Step 4
- remove the outlet cover and arm
- remove the outlet stabiliser Ⓕ

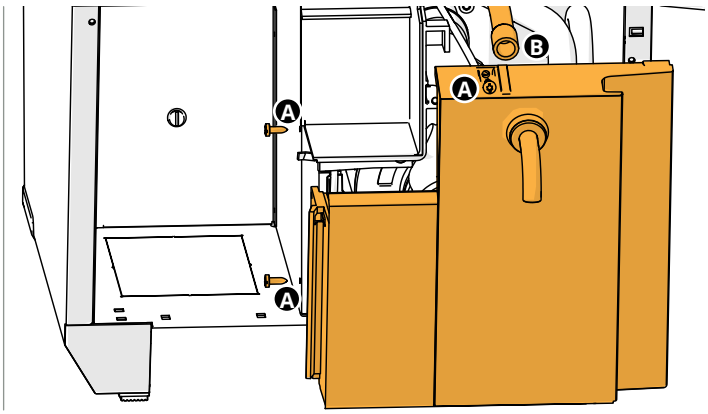
2.20 Remove the frother (11L / 21L)



Step 1
- remove the 4 hoses Ⓐ from the frother

Step 2
- remove the 2 screws Ⓑ of the frother
- remove the frother

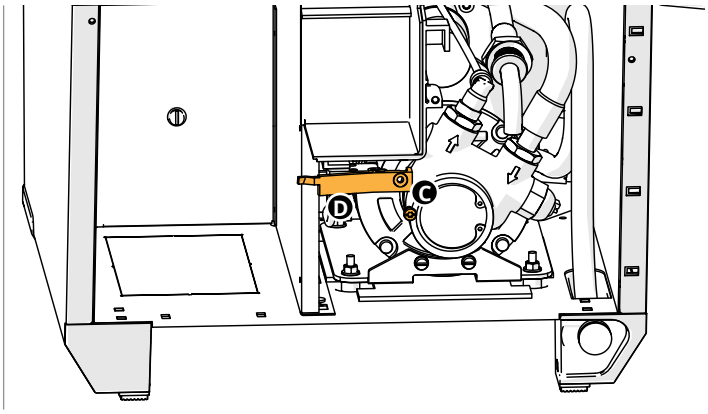
2.21 Remove the waste bin safety switch



Step 1
- remove the drip tray
- remove all the canisters
- remove the beverage outlet as in section 2.19

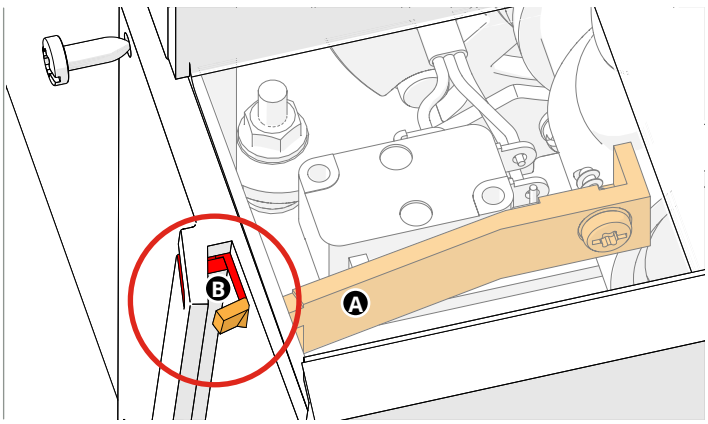
Step 2
- remove the 3 screws of the frontpanel Ⓐ
- move the front panel slightly forward
  - » ***carefully*** unhook the front panel from the right side panel

Step 3
- disconnect the hose Ⓑ from the hot water outlet
- remove the front panel



Step 4
- remove the screw of the bracket Ⓒ
- unhook the bracket Ⓓ with safety switch
- disconnect the wiring
- remove the safety switch

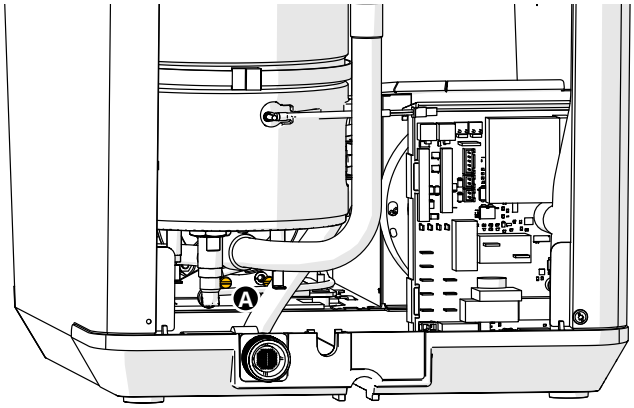
2.21.1 Reassembly remarks



► *When reassembling the front panel make sure that the safety switch lever is mounted correctly in the front panel.*
- position the safety switch lever Ⓐ through the hole Ⓑ of the front panel
- hook the front panel into the side panel on the right
  - » ***carefully*** position the front panel
- attach the front panel with the 3 screws

2.22 Remove the pump (head)

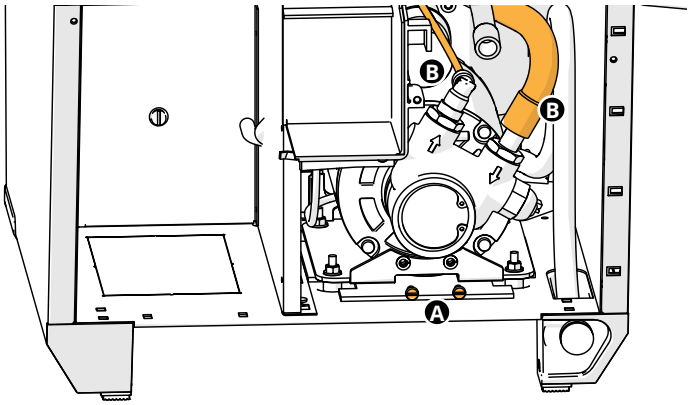
► *In some cases the head of the pump can be released by turning the screw on the backside of the motor of the high pressure pump.*



Step 1
- drain the boiler as in Step 1 of section 2.16.4

Step 2
- remove the back panel as in Step 1 of section 2.4

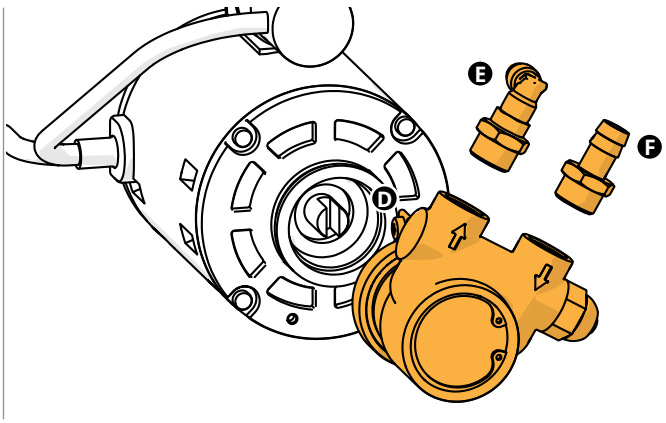
Step 3
- remove the screw(s) of the pump Ⓐ, the number of screws varies depending on the version



Step 4
- remove the beverage outlet as in section 2.19

Step 5
- remove the front panel in Step 2 of section 2.21

Step 6
- remove the 2 hoses Ⓑ from the pump
  ► *Some water will come out of the hoses.*
- remove the screw(s) of the pump Ⓒ, the number of screws varies depending on the version
- lift the complete pump slightly forward to create space for head disassembly



Step 7
- loosen the clamp Ⓓ
- remove the knee with nipple Ⓔ, and the hose support Ⓕ for mounting a new pump head
- remove the pump head

3. Spare parts replacement FreshMilk

► ***Precautionary measures***

» Always unplug the machine to turn off the power before opening it.
» Turn off the water tap and disconnect the water supply hose.
» The service area can have sharp edges, wear gloves and long sleeves.
» When the FreshMilk is drained, hot water comes out of the drain hose, therefore take protective measures.

Necessities:

- Philips screwdriver
- screwdrivers torx 10 and 15
- small adjustable wrench
- open-end wrench / socket wrench: M3 and M4
- curved nose pliers
- combination-pliers

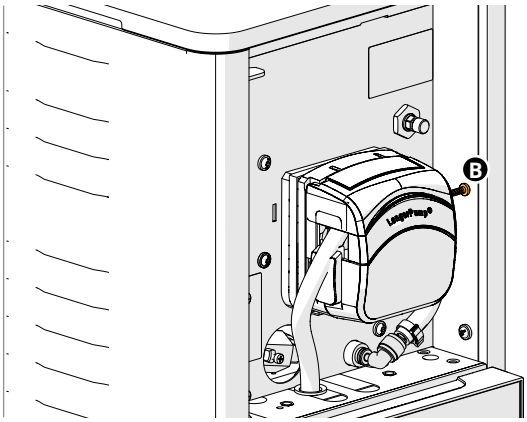
Reassembly remarks:

- see the exploded views for the service part numbers
- see the electric diagram for the wiring connections
- see the hose schematics for the hose connections

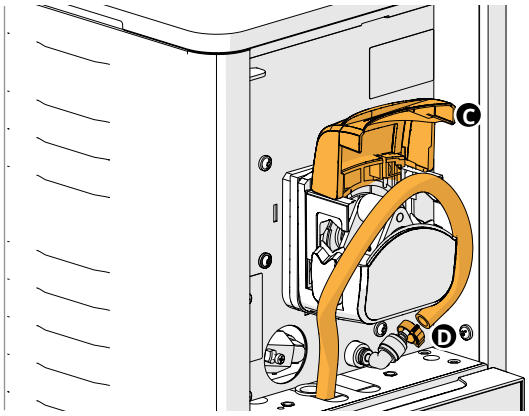
► *The (cleaning) animations can be found on the Esprecious 11L / 21L website.*
These animations can also be found on our You-tube channel:
https://www.youtube.com/user/BravilorBonamatBV/playlists

3.1 Replace the milk hose

Step 1
- open the pump door Ⓐ



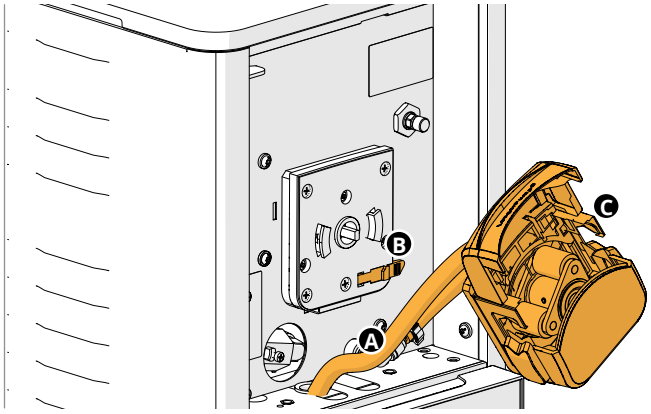
Step 2
- remove the locking screw Ⓑ



Step 3
- open the pump cover C
- disconnect the milk hose D
- remove the milk hose

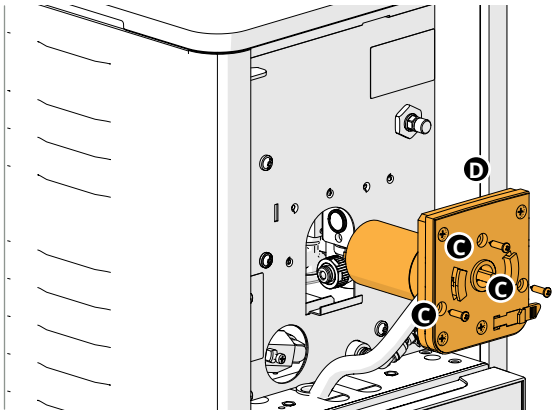
Step 4
- calibrate the milk pump:
  programming > *Milk unit* > *Service* > *Calibrate milk pump*
  » a scale is required

3.2 Remove the peristaltic pump(motor)



Step 1
- open the pump door as Step 1 in of section 3.1
- remove the hose A from the pump ***without*** disconnecting it

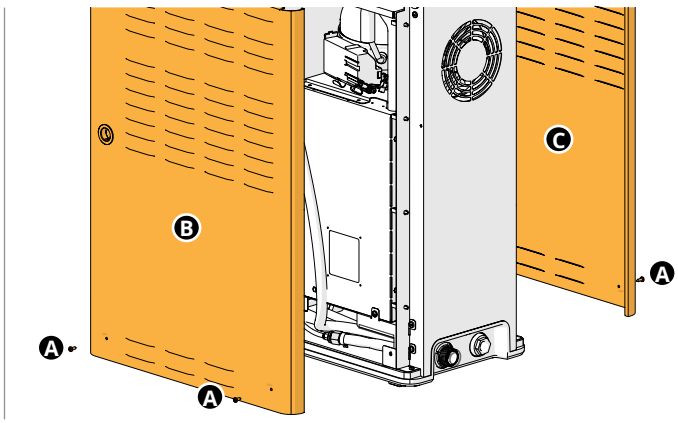
Step 2
- press the pawl B to unlock the pump
- turn the pump C anti-clockwise to remove



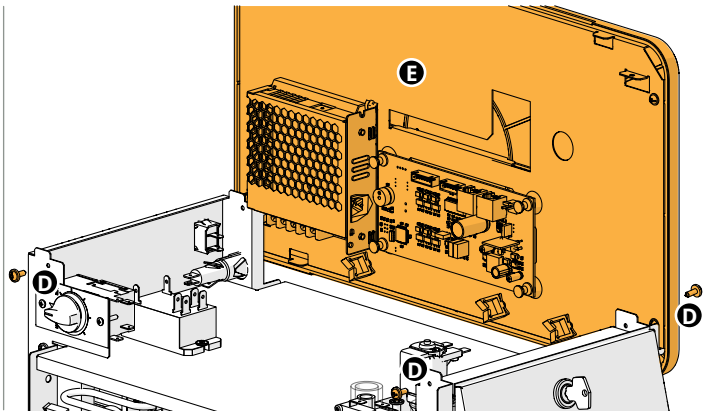
Step 3
- remove the 3 screws C
- take out the motor D
- disconnect the wiring from the pumpmotor

Step 4
- calibrate the milk pump as in Step 4 of section 3.1

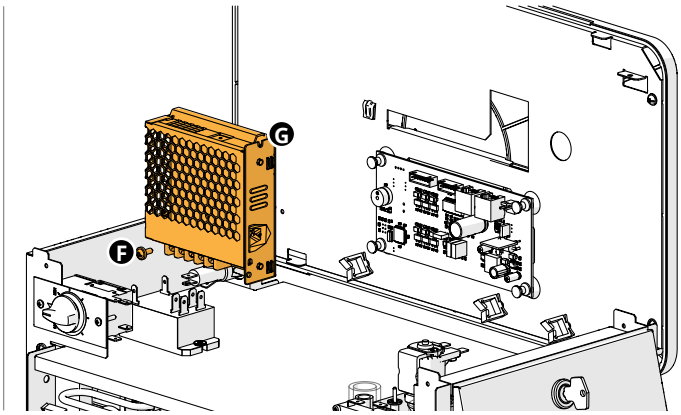
3.3 Remove the power supply



Step 1
- remove the 2 screws A of each side panel
- remove both side panels
  B right side panel
  C left side panel

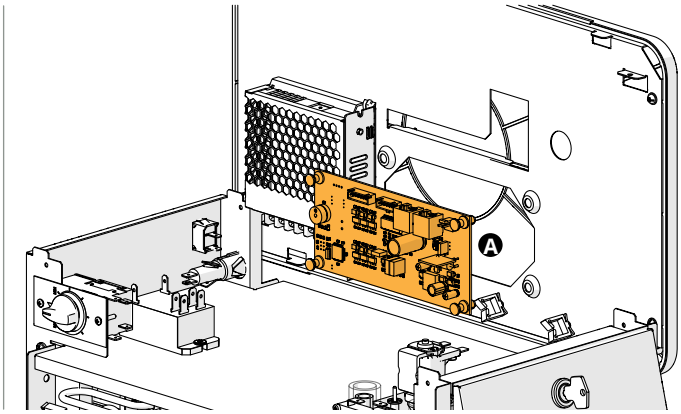


Step 2
- remove the 4 screws Ⓓ of the top panel
- place the top panel Ⓔ in the hooks on the right-hand side



Step 3
- disconnect the wiring from the power supply
- remove the screw Ⓕ of the power supply
- remove the power supply Ⓖ

3.4 Remove the mainboard

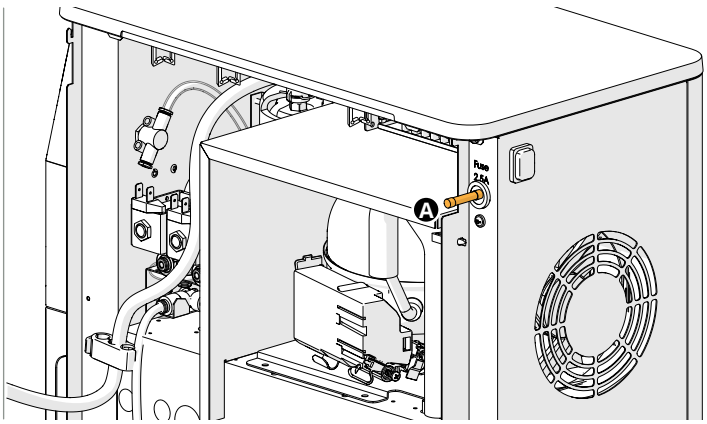


Step 1
- remove both side panels as in Step 1 of section 3.3

Step 2
- place the top panel as in Step 2 of section 3.3

Step 3
- disconnect the wiring from the mainboard
- remove the mainboard Ⓒ

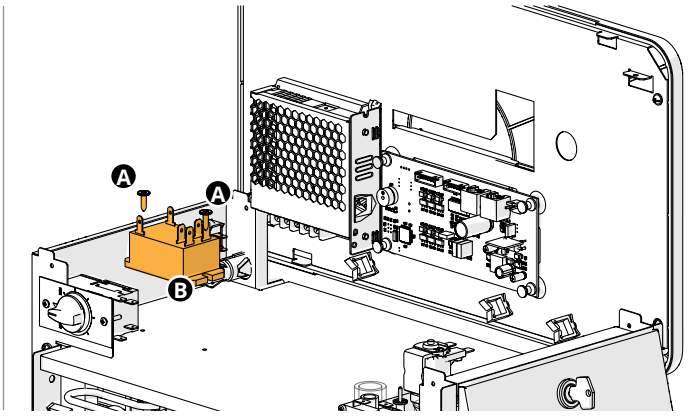
3.5 Remove the fuse



Step 1
- remove the right side panel as in Step 1 of section 3.3

Step 2
- open the fuse holder Ⓐ and remove the fuse (2.5 amps) Ⓐ

3.6 Remove the relay

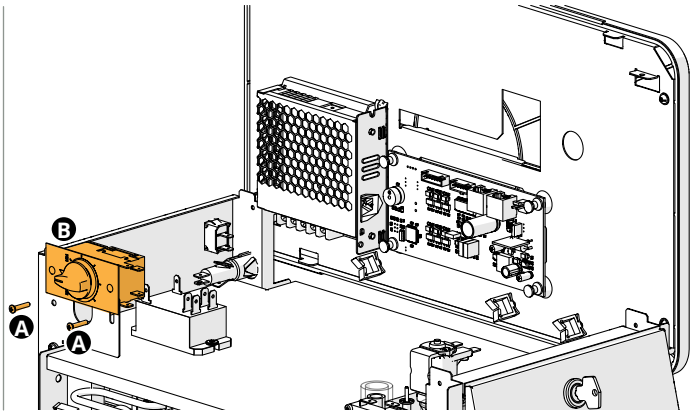


Step 1
- remove both side panels as in Step 1 of section 3.3

Step 2
- remove the top panel as in Step 2 of section 3.3

Step 3
- disconnect the wiring of the relay
- remove 2 screws Ⓐ of the relay
- remove the relay Ⓑ

3.7 Remove the thermostat



Step 1
- remove both side panels as in Step 1 of section 3.3

Step 2
- remove the top panel as in Step 2 of section 3.3

Step 3
- remove 2 screws Ⓐ of the thermostat
- disconnect the wiring
- slide the thermostat Ⓑ off the sheet metal

Step 4
- mark the point, on the capillary pipe, where it enters the cooling unit
- carefully remove the adhesive paste and the capillary pipe out of the cooling unit

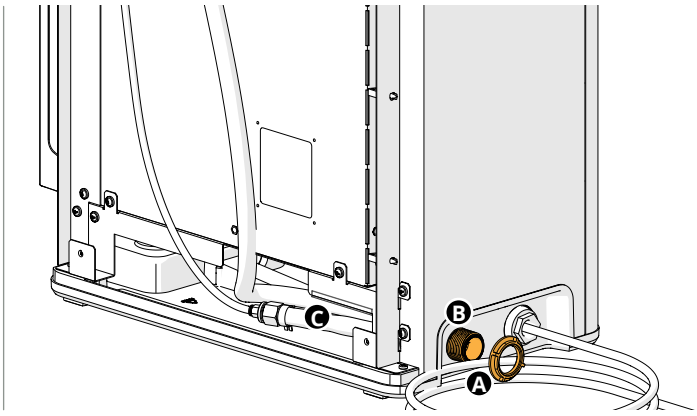
3.7.1 Reassembly remarks

► *Handle the new the thermostat and capillary pipe with care.*

- mark the same distance, on the new capillary pipe, to where it enters the cooling unit
- carefully enter the capillary pipe into the cooling unit
- seal the entry hole again with the “old” adhesive paste

► *Check whether the recommended temperature (5°C) has been reached (after about 20 minutes), adjust the thermostat if necessary*

3.8 Remove the inlet valve

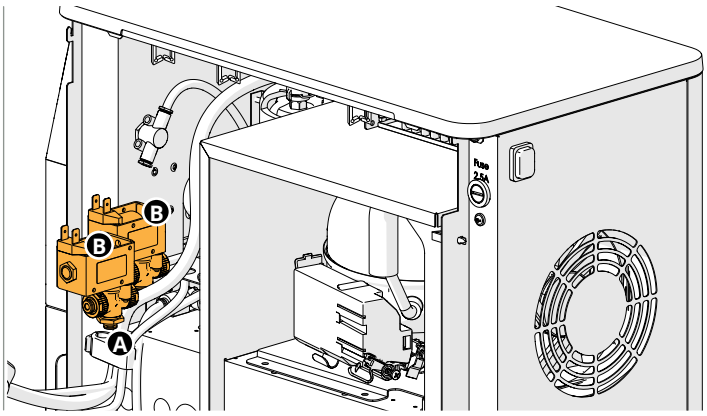


Step 1
- remove the right side panel as in Step 1 of section 3.3

Step 2
- remove the water supply hose
- remove nut Ⓐ of inlet valve
- remove the inlet valve
- loosen the 2 hose from the inlet valve outside the machine

► *Some water can still come out of the hose.*

3.9 Remove the 3-way valve(s)



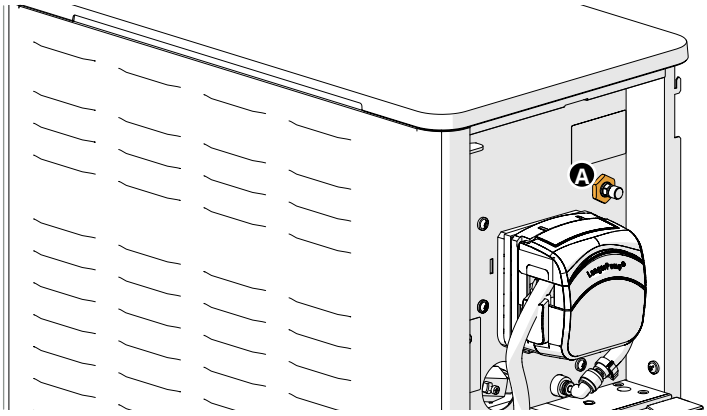
Step 1
- remove the right side panel as in Step 1 of section 3.3

Step 2
- remove the hose Ⓐ underneath the valve
- remove nut underneath trotle valve
- take out the valve(s)

Step 3
- disconnect the other hoses Ⓑ from valve(s)
- disconnect the wiring

► *See the hose schematics for the hose connections.*

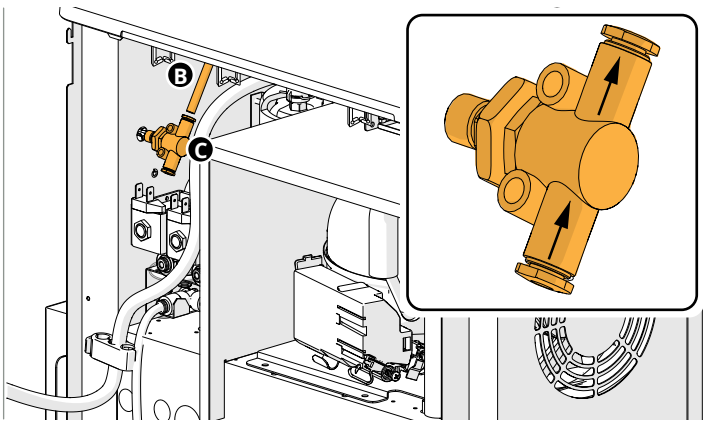
3.10 Remove the trottle valve (air control)



Step 1
- remove the right side panel as in Step 1 of section 3.3

Step 2
- open the pump door as Step 1 in of section 3.1

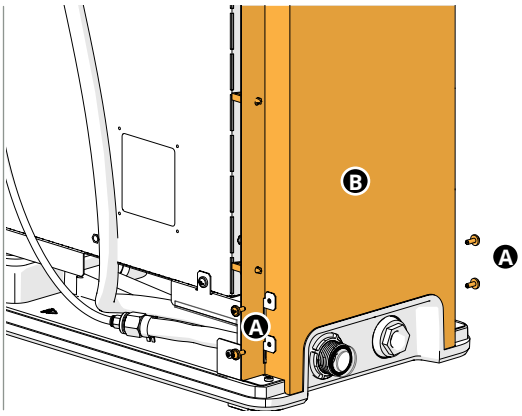
Step 3
- remove nut Ⓐ from trotle valve



Step 4
- disconnect the hose Ⓑ from trotle valve
- take out the trotle valve

► *The arrows on the valve must point towards the hose.*
- calibrate the new air controle as in section 5.2.1

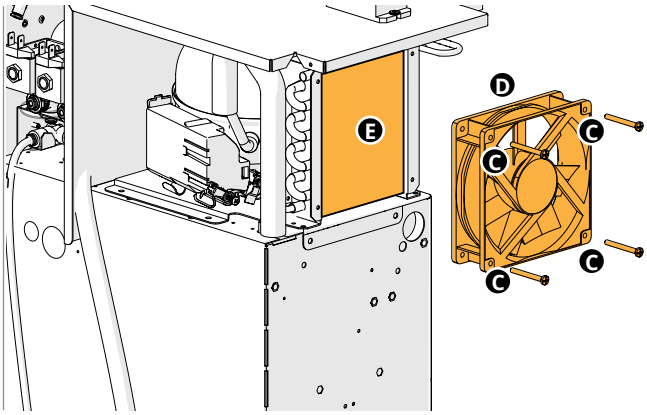
3.11 Remove the fan



Step 1
- remove both side panels as in Step 1 of section 3.3

Step 2
- remove the top panel as in Step 2 of section 3.3
- disconnect the wiring of the mainboard and the power supply
- remove the top panel

Step 3
- remove the thermostat as in as in Step 3 of section 3.7
- disconnect the wiring of the on/off switch
- disconnect the wiring of the fuse holder
- remove the wiring from the cable clips
- remove 4 screws Ⓐ of the back panel Ⓑ to remove it



Step 4
- disconnect the wiring of the fan
- remove 4 screws Ⓒ of the fan Ⓓ to remove it
- remove any dust from the condenser Ⓔ (use a vacuum cleaner if necessary)

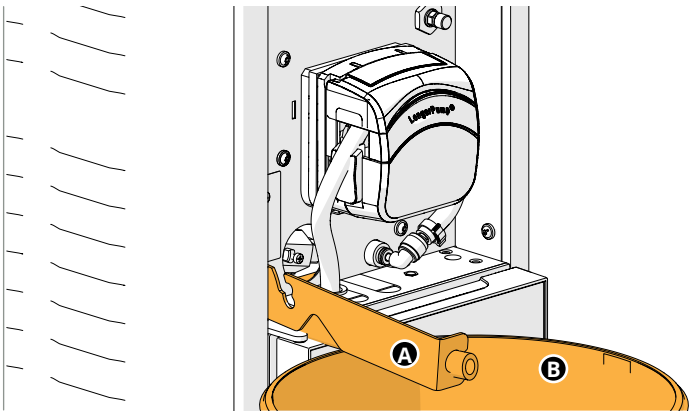
► *The airflow direction is outwards.*

► *Do not forget to connect the earth wire.*

3.12 Steam boiler parts

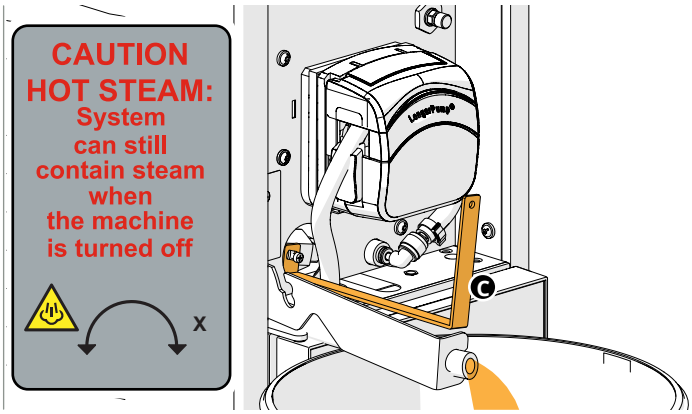
► *The boiler may be hot and pressurised.*
► *The boiler must be depressurized by draining before removing parts.*

3.12.1 Drain the steam boiler



Step 1
- open the pump door as Step 1 in of section 3.1

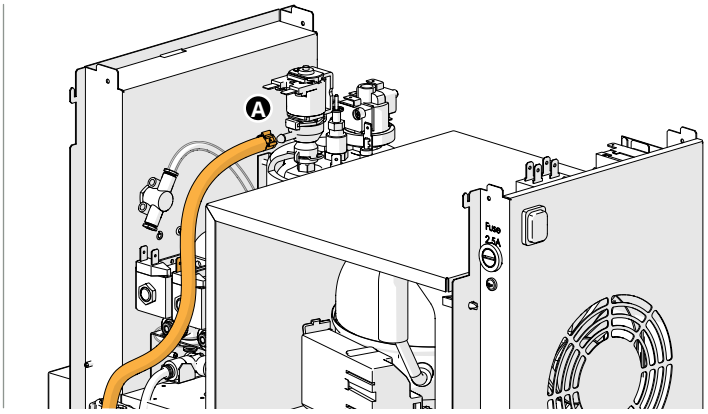
Step 2
- pull out bracket with the drain hose Ⓐ
- place a bucket/container under the drain hose Ⓑ



► ***When the boiler is drained, hot water and steam comes out of the drain hose, therefore take protective measures.***

Step 3
- open the valve with the special tool Ⓒ slowly, when steam/hot water comes out don't open the valve further, when the steam pressure is lower slowly open the valve further so that all water can flow out
- wait until all the water has drained out of the boiler

3.12.2 Remove the steam valve

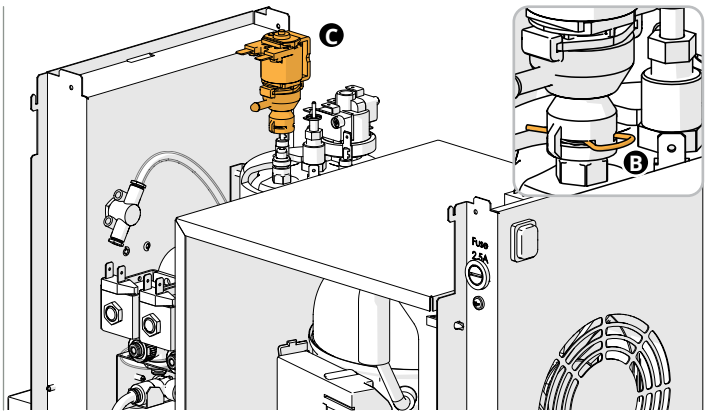


Step 1
- drain the steam boiler as in section 3.12.1

Step 2
- remove both side panels as in Step 1 of section 3.3

Step 3
- remove the top panel as in Step 2 of section 3.3

Step 4
- disconnect the hose Ⓐ from the steam valve



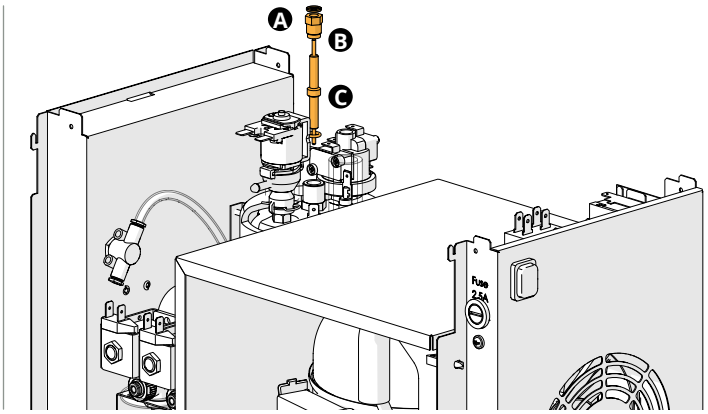
Step 5
- disconnect the wiring from the steam valve

► ***Before removing the retaining pin and steam valve make sure that the steam boiler is empty, see*** section 3.12.1.

- remove the retaining pin Ⓑ
- remove the steam valve Ⓒ

► *Consider to exchange the O-rings.*

3.12.3 Remove water detection sensor



Step 1
- drain the steam boiler as in section 3.12.1

Step 2
- remove both side panels as in Step 1 of section 3.3

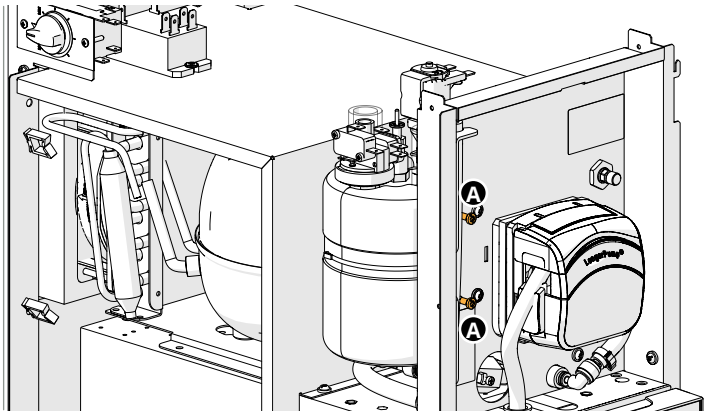
Step 3
- remove the top panel as in Step 2 of section 3.3

► ***Before removing the water detection sensor fasteners and the sensor itself, make sure the steam boiler is empty, see*** section 3.12.1.

Step 4
- disconnect the wiring from water detection sensor
- remove the push-on fastener Ⓐ
- remove the nipple Ⓑ
- take out the water detection sensor Ⓒ

► *Consider to exchange the O-ring.*

3.12.4 Remove complete steam boiler

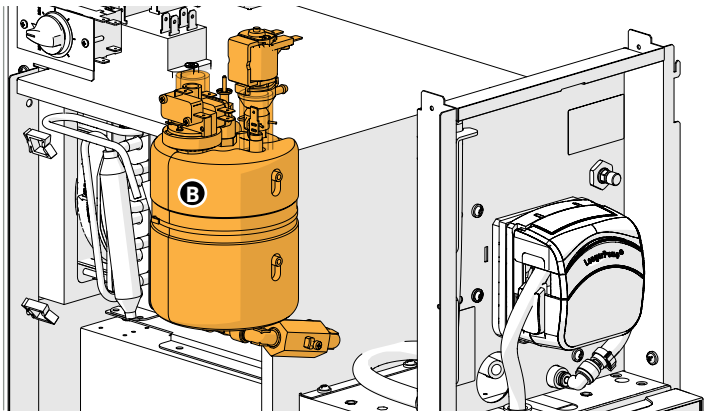


Step 1
- drain the steam boiler as in section 3.12.1

Step 2
- remove both side panels as in Step 1 of section 3.3

Step 3
- remove the top panel as in Step 2 of section 3.3

Step 4
- open the pump door as Step 1 in of section 3.1



► ***Before removing the hoses and steam boiler make sure that the steam boiler is empty, see section 3.12.1.***

Step 5
- remove all the hoses from the steam boiler
- remove all the wiring from the steam boiler
- remove the 2 screws Ⓐ (see previous image)
- remove the complete steam boiler Ⓑ

► *Consider to exchange the O-rings.*

4. Trouble shooting

4.1 Esprecious machine errors

code	description	detection	suspected components
00000	communication error bus system	the bus systems circuit is interrupted	• all bus cables • canister motor • mixer motor • 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 • mainboard
00101	mixer motor runs insufficiently	no rotation of the mixer motor detected by the software	• mix system clogged • mixer motor • 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
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	float is activated 3 times and no drink is selected	• leakage in the water system • machine is moved • water is boiling • mainboard • float
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
04101	communication error brewer	the espresso brewer has not been receiving messages for too long	• software
04102	break temperature sensor brewer	the NTC of the brewer heating is measuring an unrealistic resistance	• brewer heating • wiring
04103	short−circuit temperature sensor brewer	the brewer heating element is using too much power	• brewer heating • wiring
04104	brewer does not move	the espresso brewer mechanism is not reaching the desired position or one of the light sensors is not receiving any pulses	• brewer motor • screws of the brewer motor to tight • belt between the gears to tight • coffee grind on the axe of the brewer
04201	water meter gives no pulses	pulses from the flow meter have not been measured for too long a time	• the head of the high pressure pump is stuck » In some cases the head of the pump can be released by turning the screw on the backside of the motor of the high pressure pump • scale • magnetic valve (on the boiler) • wiring • water counter
10001	general I/O error	the I/O module is reporting an error	• mainboard • software

4.2 Esprecious L (FreshMilk) machine errors

code	description	detection	suspected components
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	• water tap not open • water hose kinked • water pressure to low • inlet valve • blockage in the water system/steam boiler
00702	steam boiler does not pressurize	the steam boiler does not get on pressure within an amount of time	• reset pressure switch manually • steam boiler • mainboard • wiring • relay
00703	steam boiler error	the electrode inside the steam boiler keeps measuring water whilst during some period milk drinks are prepared. If this happens it could indicate that there's a problem in the water detection and the steam boiler could boil dry	• inlet valve • electrode • wiring
00704	milk pump error	the milk pump runs insufficiently	• milk pump • wiring • mainboard
00705	the 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 the steam part of the machine	• steam valve • steam boiler • hoses
00706	the steam boiler builds up too much pressure during the filling process	the machine is switched on or when it comes out of Eco mode, pressure is built up in the steam boiler. If the pressure builds up to quick, the software intervenes by opening the steam valve for a short time. If the pressure is still too high the error will appear	• steam valve • steam boiler
		the steam valve does not open (sticks or defect)	• steam valve

4.3 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

4.4 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	> *machine settings* > *process settings* > *waste bin counter*
the machine shows the 'flush brewer + mixer' message	the machine has passed the set amount of cups or days for the 'flush brewer + mixer' message	perform the 'flush brewer + mixer' program: > *'flush brewer + mixer'*	> *process settings* > *cleaning management*
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: > *'clean brewer'*	> *process settings* > *cleaning management*
the machine shows the water filter replacement message	the amount of litres or months has past the set value for the water filter	manually reset the replace water filter message: > *maintenance* > *replace water filter*	> *machine settings* > *process settings* > *water hardness* > *water hardness*
the machine shows the message 'The machine should be descaled'	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: > *maintenance* > *descale*	> *machine settings* > *process settings* > *water hardness* > *water hardness*
the machine shows the 'enter the security PIN code for the programming'	a pin code for the machine settings is set on the machine, this pin code needs to be entered when accessing the programming menu of the machine settings	enter the pin code for the machine settings	> *general settings* > *put functions on / off* > *programming security*
the machine shows the 'enter the security PIN code for the service menu'	a pin code for the service menu is set on the machine, this pin code needs to be entered when accessing the programming menu of the service	enter the pin code for the service menu	> *general settings* > *put functions on / off* > *programming security*
energy saving mode	the machine is not used for the amount of time that is set in the 'energy saving mode'	touch the screen	> *process settings* > *energy saving mode*

Message	Reason of the message	Procedure to reset the message	Check the following
Attention! Too much coffee!	the machine detects that there is to much coffee in the brewer by the amount of pulses of the brewer motor	press the 'ok' button in the message	• calibrate the grinder • check if there is no grinded coffee behind the sieve of the brewer • check if press 2 in the drink settings 'strength and amount' is not a negative number
Attention! Out of Coffee beans!	the machine detects that there is not enough coffee in the brewer by the amount of pulses of the brewer motor	press the 'ok' button in the message	*fill the coffee canister with coffee beans*

4.5 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.

4.5.1 Machine related (Esprecious)

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 (transformer	• replace fuse on the wiring of the transformer
	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
	ventilator speed turned off or too low in the programming	> *machine settings* > *process settings* > *fan speed*
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, only instant 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

Problem description	Possible cause	Check the following
the waste bin needs to be emptied multiple times a day	the machine is used for more drinks than specified	• consider to use the waste chute and a big waste bin underneath the counter
bean canister needs to be filled frequently	the machine is used for more drinks than specified	• consider to use the bean canister extension set
	the amount of coffee used per drink is higher than the standard amount which results in the bean canister being empty quicker	• consider to use the bean canister extension set

4.5.2 Coffee related

Problem description	Possible cause	Check the following
coffee related drink too weak	almost out of coffee beans	• fill bean canister
	grinder calibration	• grinder calibration
	grind size not correct	• adjust the grind size
	strength too low	• adjust the strength setting of the drink
	contact time too low	• adjust brewer settings to get a longer contact time
	brewer issue	• brewer and brewer process
coffee related drink too strong	grind size	• adjust the grind size
	strength setting to high	• adjust the strength setting of the drink
less coffee in the cup than normal	brewer leaking	• brewer and brewer process
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

4.5.3 Instant ingredients related

Problem description	Possible cause	Check the following
instant related drink too weak	almost out of powder in ingredient canister	• ingredient container
	strength not correct	• adjust drink settings, strength instant
instant related drink too strong	strength not correct	• adjust drink settings, strength instant
no water dosed (instant and hot water related)	water level too low	• float
	hose blocked (scale)	• all related hoses

Problem description	Possible cause	Check the following
mixing bowl clogs up	too 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 too high	• calibrate the low pressure pump
	mixing bowl clogged up	• mixing bowl
mixing bowl leaks	mixing bowl seal worn	• seal mixing bowl
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

4.5.4 FreshMilk machine related

Problem description	Possible cause	Check the following
machine doesn't turn on	no power	• power supply
		• power cable connection
	main switch off	• main switch
	internal fuse blown (power supply)	• internal fuse
	power supply issue	• power supply
	wiring issue	• internal wiring
	mainboard issue	• mainboard
refrigerator not cold	thermostat not correctly set	• adjust thermostat
	fan blocked	• fan dirty
		• condensor dirty
	fan doesn't rotate	• fan
		• wiring
		• mainboard
	cooling system issue	• cooling system
	thermostat issue	• thermostat

4.5.5 Milk related

Problem description	Possible cause	Check the following
no milk dosed, only steam	out of milk	• milk carton / milk reservoir
	milk tube blocked	• milk tube
almost no milk foam	air restriction not set correct	• calibrate the air restriction (see section 5.2.1 on p.37)
	3 way valve doesn't open	• 3 way valve
	tube blocked	• tube between air restriction and 3 way valve

Problem description	Possible cause	Check the following
cold milk dosed and no steam	steam valve doesn't open	• steam valve
milk splashes a lot when dosed	milk not cold	• milk temperature (± 5°C)
	air restriction not set correct	• calibrate the air restriction (see section 5.2.1 on p.37)
	milk pump not calibrated	• calibrate the milk pump (programming > milk module > service > calibrate milk pump)
	tubes not correctly attached to the milk foamer	• tubes connected to the milk foamer
milk drink greyed out, can't be selected (no message displayed)	connection problem between mainboard FreshMilk and interface board	• connection cable between FreshMilk and Esprecious
		• connection cable (inside the Esprecious) from Interface board to the 6-pin connector
		• interface board (Esprecious)
		• mainboard FreshMilk
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
milk leaks around the milk pump	milk tube leaks	• replace the milk tube within 10.000 milk drinks

5. Special functions

5.1 Esprecious

5.1.1 Master PIN-code

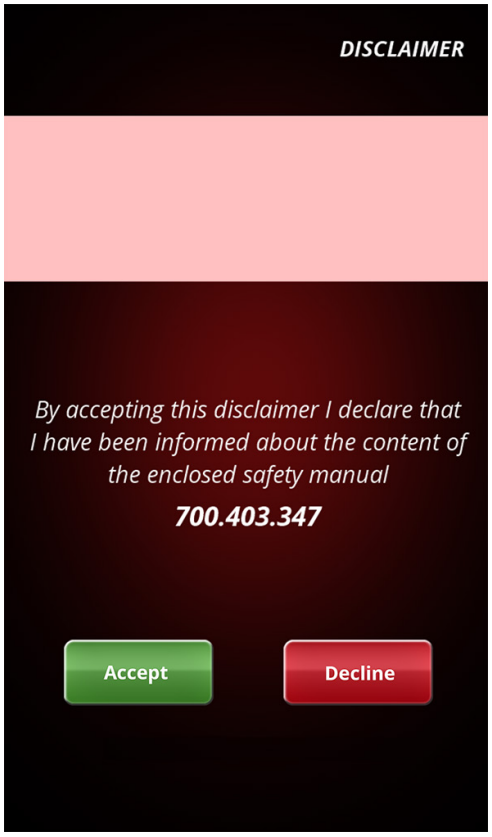
► *The master PIN code can be used when the set security PIN code is forgotten.*

- The master PIN code to overrule the security PIN code is ***1948***.

5.1.2 Overriding the first install program

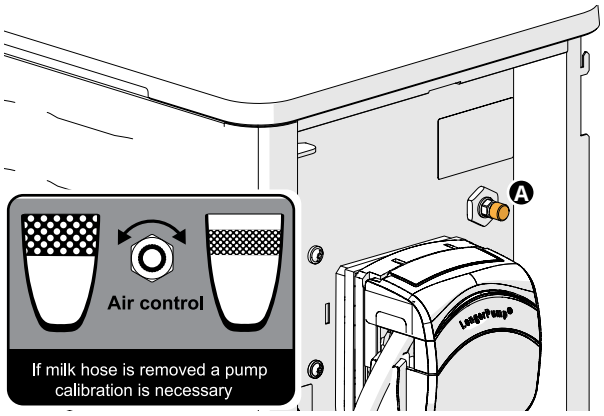
► *This is mainly to check the function of the machine if an unexpected error occurs during the first install program.*

- in the disclaimer screen there is an invisible button *(see the pink area in the screen below)*
- touch the screen for at least 10 seconds until the machine overrules the first install program
- after turning the machine off and on the machine will start up in the first install program again



5.2 FreshMilk

5.2.1 Calibrate the air restriction

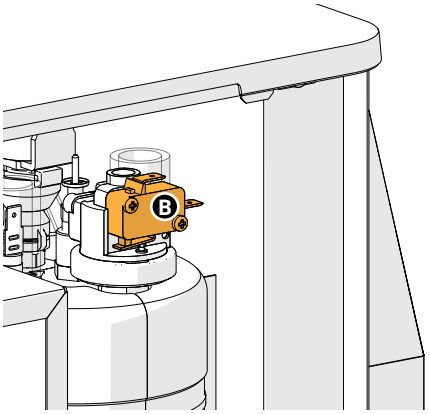


Step 1
- open the pump door as Step 1 in of section 3.1

Step 2 (factory setting)
- completely close the air restriction Ⓐ
- turn the air control open 5 whole turns

► *Use the factory setting as a starting point for the optimum setting.*

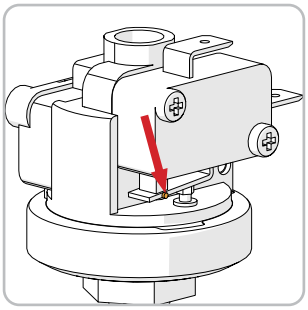
5.2.2 Reset the micro switch on the pressure switch



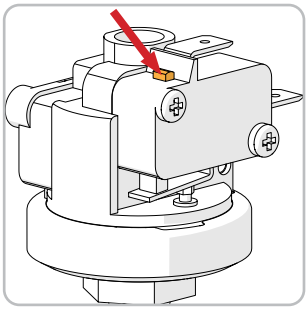
Step 1
- remove the left side panel as in Step 1 of section 3.2
- push the button down to reset the micro switsch

► *The position of the reset button may be at a different position depending on the production date, for more information, see SI 230322.*

Used in machine produced till 2023



Used in machine produced from 2023



6. Recipes (ex-factory)

6.1 Standard Esprecious beverages/recipes

► *Only use instant ingredients that are suitable for vending machines (contains a flowing agent).*

Recipe	Dosing sequence	Ingredient	Ratio grams	Partial ml	Total ml
espresso	1	coffee beans	12	40	40
lungo / caffè crema	1	coffee beans	8.5	120	120
cappuccino	1	topping	10	80	120
	2	coffee beans	9	40	
latte macchiato	1	topping	5	40	120
	2	topping	5	40	
	3	coffee beans	9	40	
caffè latte / café au lait	1	coffee beans	8.5	40	120
	2	topping	10	80	
hot chocolate	1	cacao	20	120	120
hot chocolate deluxe	1	cacao	20	80	120
	2	topping	2	40	
espreschoc	1	cacao	20	40	120
	2	topping	2	40	
	3	coffee beans	9	40	
espressochoc	1	coffee beans	9	40	120
	2	cacao	20	80	
moccachino / wiener melange	1	topping	13	40	120
	2	cacao	7	40	
	3	coffee beans	8.5	40	
hot milk	1	topping	10	120	120
hot water	1	-	-	-	120

6.2 Standard Esprecious L (FreshMilk) beverages/recipes

► *Only use instant ingredients that are suitable for vending machines (contains a flowing agent).*

Recipe	Dosing sequence	Ingredient	Ratio grams	Partial ml	Total ml
espresso	1	coffee beans	12	40	40
lungo / caffè crema	1	coffee beans	8.5	120	120
cappuccino	1	milk	-	80	120
	2	coffee beans	9	40	
cappuccino dark	1	coffee beans	9	80	120
	2	milk	-	40	
latte macchiato	1	milk	-	40	120
	2	milk	-	40	
	3	coffee beans	9	40	
caffè latte / café au lait	1	coffee beans	7.5	60	120
	2	milk	-	60	
hot chocolate	1	cacao	20	120	120
hot chocolate deluxe	1	milk	-	40	120
	2	cacao	20	80	
espreschoc	1	cacao	14	40	120
	2	milk	-	40	
	3	coffee beans	9	40	
espressochoc	1	coffee beans	9	40	120
	2	cacao	20	80	
moccachino / wiener melange	1	milk	-	50	120
	2	coffee beans	9	40	
	3	cacao	7	30	
hot milk	1	milk	-	120	120
hot water	1	-	-	-	120

6.3 Premix beverages

A premix is a customized blend of two or more ingredients.
With premix 1 and/or premix 2 in the canisters, you can choose the following recipes:

Recipe	Dosing sequence	Ingredient	Ratio grams	Partial ml	Total ml
coffee + premix 1B	1	coffee beans	8.5	-	120
	2	premix 1	20%	-	
coffee + premix 2B	1	coffee beans	8.5	-	120
	2	premix 2	20%	-	
coffee + premix 1B+2B	1	coffee beans	8.5	-	120
	2	premix 1	20%	-	
	2	premix 2	20%	-	
premix 1A	1	premix 1	8%	-	120
premix 1B	1	premix 1	20%	-	120
premix 1C	1	premix 1	40%	-	120
premix 2A	1	premix 2	8%	-	120
premix 2B	1	premix 2	20%	-	120
premix 2C	1	premix 2	40%	-	120
premix 1B+2B	1	premix 1	20%	-	120
	1	premix 2	20%	-	

The letters indicates a standard ratio
- A 8%
- B 20%
- C 40%

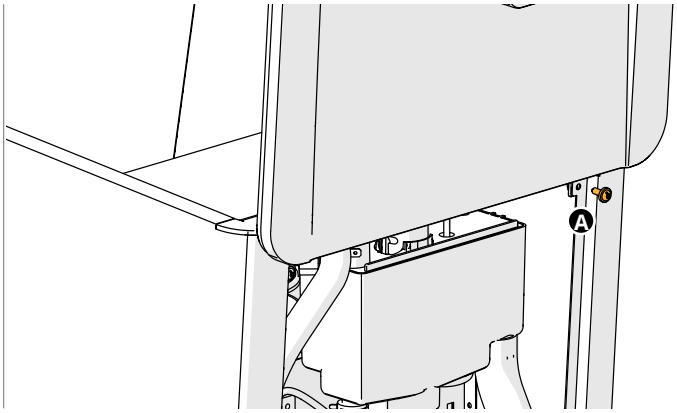
The ratio/grams can be changed in the programming

7. Esprecious accessoires

7.1 Bean canister expansion set

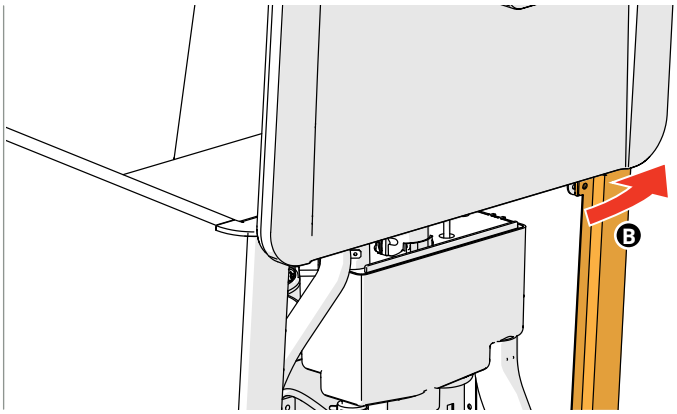
The extension set contains:
- a bean canister,
  - » 7.270.609.101 bean canister Esprecious 11(L) and 12 (1x2.4 kg)
  - » 7.270.610.101 bean canister Esprecious 21(L) and 22 (2x1.2 kg)
- a canister lid with key/lock
- a machine lid.

The extension set will increase the Esprecious with 13 cm in height.

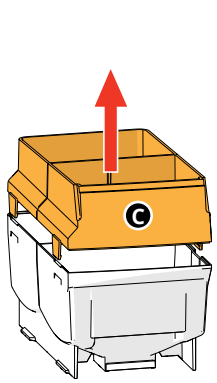


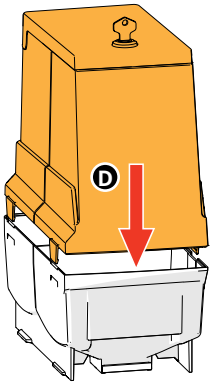
Step 1
- open the door
- open the lid
- remove all the canisters
- remove the back panel as in Step 1 of section 2.4

Step 2
- remove screw A



Step 3
- bend the side panel B sligthly outward
- remove the lid
- install the new lid supplied with the set
- fasten the screw from Step 2
- replace the back panel and fasten the screws





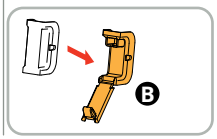
Step 4
- remove the top part of the canister C

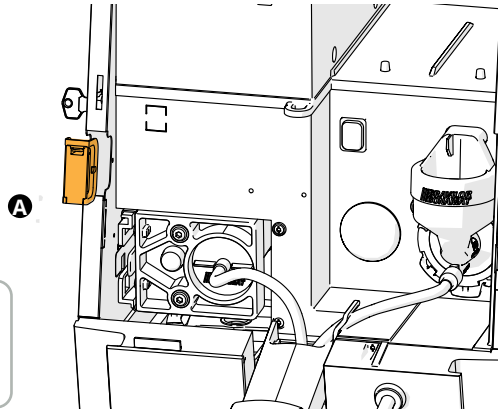
Step 5
- install the new canister part supplied with the set D

Step 5
- refill the bean canister
- replace all canisters in the machine

7.2 Conversion kit Esprecious - 7.270.612.101

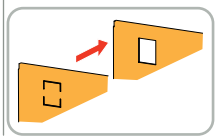
This kit makes it possible to convert an Esprecious into an Esprecious L

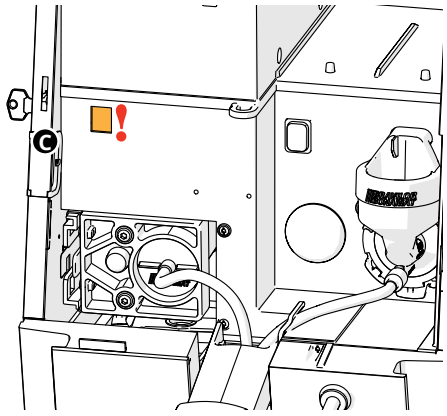




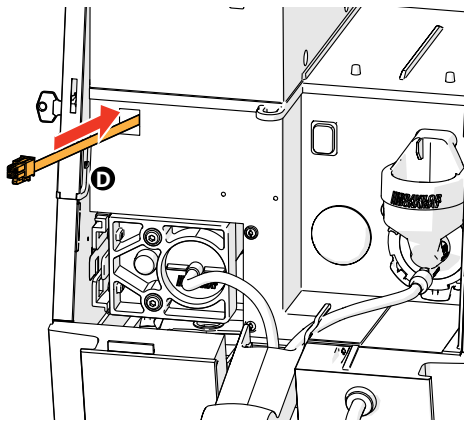
Step 1
- open the door
- remove all the canisters
- remove the back panel as in Step 1 of section 2.4

Step 2
- remove the profile seal Ⓐ
- install the new tube inlet Ⓑ



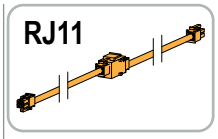


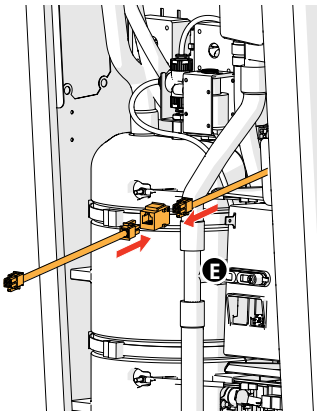
Step 3
- remove the piece of metal from the incision Ⓒ



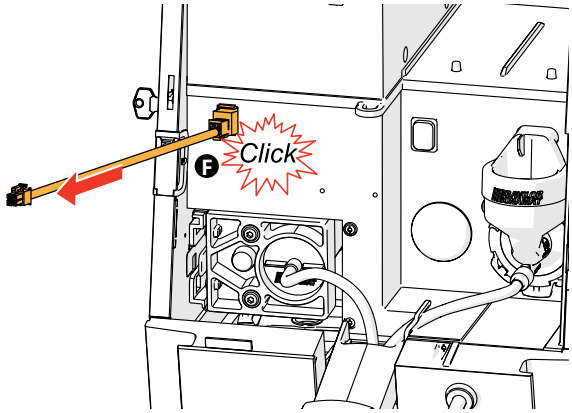
Step 4
- lead 1 of the 2 cables (RJ11) through the hole Ⓓ

  ► *Wear gloves, the edges can be sharp.*



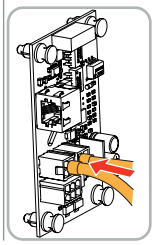


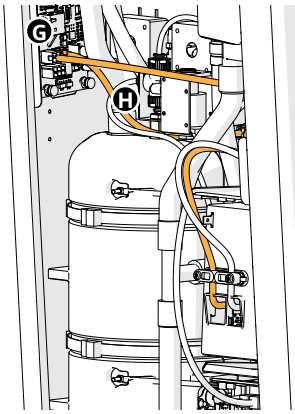
Step 5
- connect the 2 cables using the coupler Ⓔ



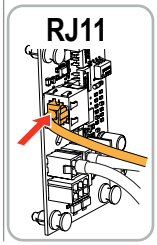
Step 6
- gently pull the coupled cable until it clicks into place Ⓕ

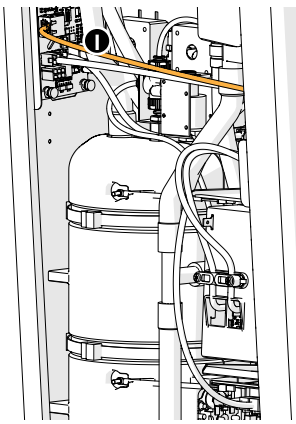
  ► *Guide the coupling at the rear.*



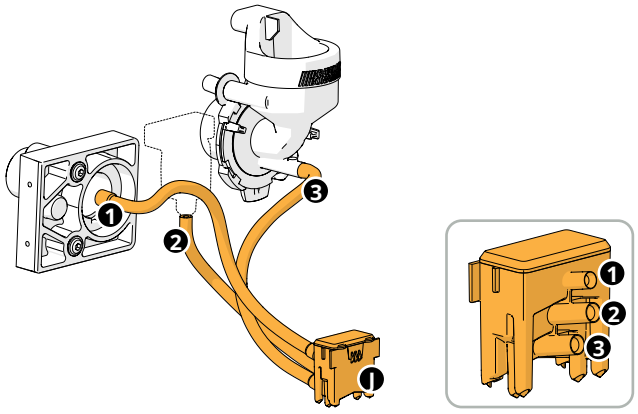


Step 7
- install the interface board Ⓖ as in section 2.11 on p.11
- rewire the bus cables Ⓗ according to the model, refer to the diagrams in sections section 7.3.1 or 7.3.2 on p.45.

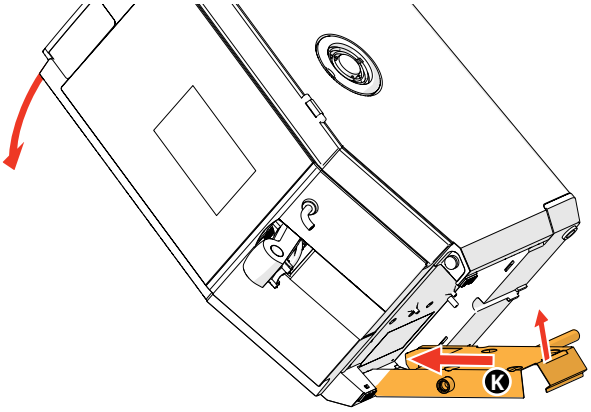




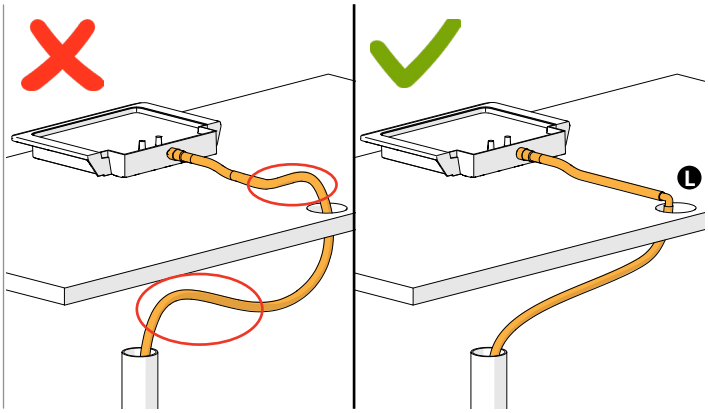
Step 8
- connect the RJ11 cable to the interface board



Step 9
- replace the outlet box ❶,
- connect the hoses
  1. coffee
  2. fresh milk
     (connect when the FreshMilk unit is installed)
  3. instant product



Step 10
- drain the boiler as in Step 1 of section 2.16.4
- connect the hose with the drip tray coupling
- tilt the machine
- hook the drip tray mounting frame under the Esprecious ❽



Step 11
- cut the hose to the required length and guide it down the correct way using the coupling ❿
- place the new drip tray in front of the Esprecious

► *Install the hose without siphoning*

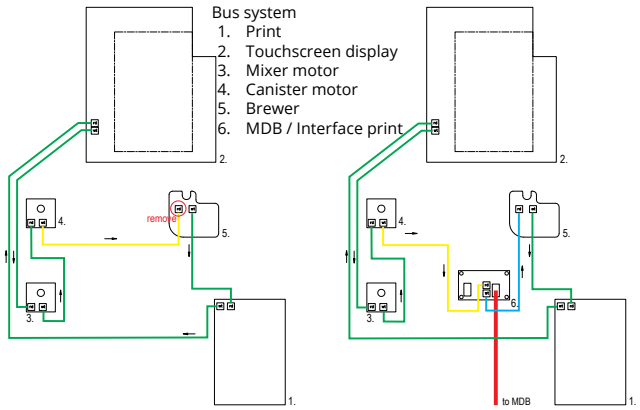
► *Ensure that the drip tray is correctly connected to the coupling.*

► *Proceed with the installation of the FreshMilk in accordance with the Quick Start Guide that is supplied with it.*

7.3 Connect a MDB device to Esprecious 11/21

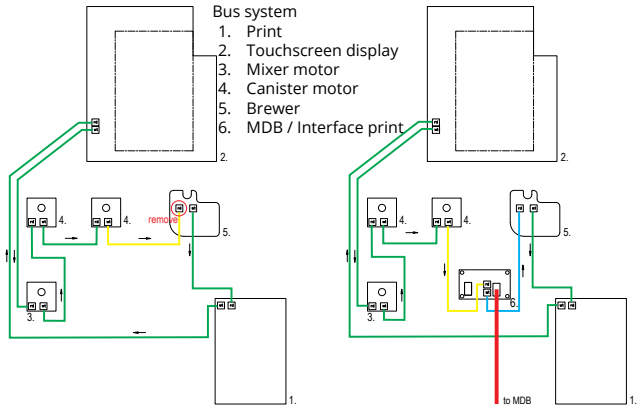
For the Esprecious to work properly, the machine's main working parts must be connected in the correct sequence.

7.3.1 Cabling diagram of the Esprecious 11/21



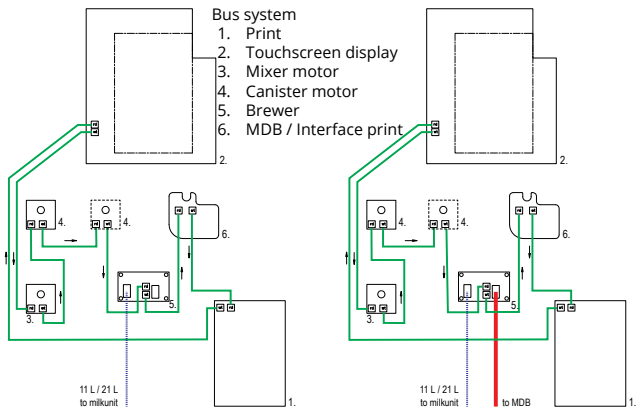
- install the interface board, see section 2.11 (in reverse order)
- rewire the cable between canister motor and brewer
- install the new cable beween the interface board and brewer
- install the new cable between the the interface board and the MDB device
- install the new MDB cable entry plate
- close the back panel

7.3.2 Cabling diagram of the Esprecious 12/22



- install the interface board, see section 2.11 (in reverse order)
- rewire the cable between canister motor and brewer
- install the new cable beween the interface board and brewer
- install the new cable between the the interface board and the MDB device
- install the new MDB cable entry plate
- close the back panel

7.3.3 Cabling diagram of the Esprecious 11L/21L

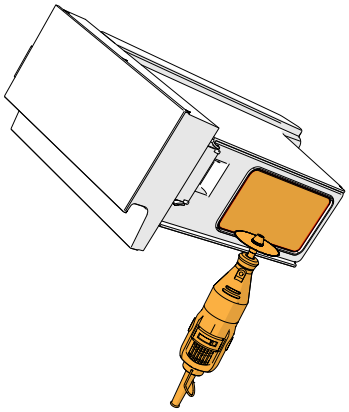


- install the new cable between the the interface board and the MDB device
- install the new MDB cable entry plate
- close the back panel

7.4 Waste chute - 7.290.107.101

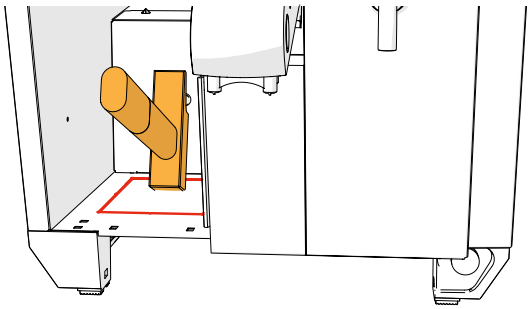
The counter cut-out is meant for an external waste bin to create extra space for coffee residue below the machine. This is a solution, especially if you have installed your machine on a counter or cabinet.

► Making a hole in your counter is your own responsibility.

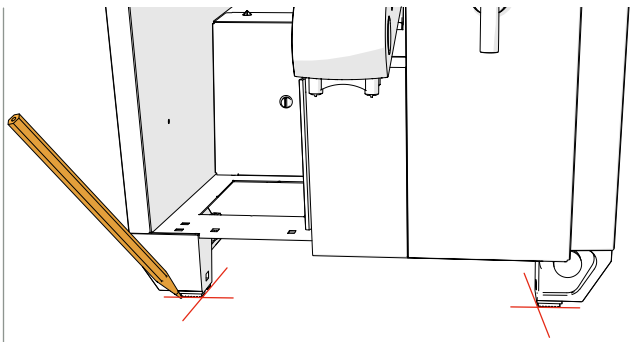


Step 1
- open the door
- remove the wate bin
- carefully make the cut-out in the bin, following the template
- smooth / sand the edges

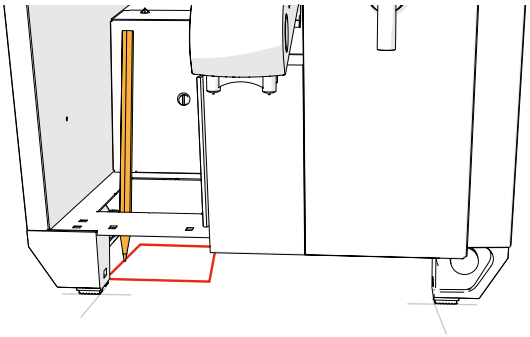
► *Do not exceed outline to prevent leaking.*



Step 2
- use a hammer to knock the push-through part out of the sheet of metal



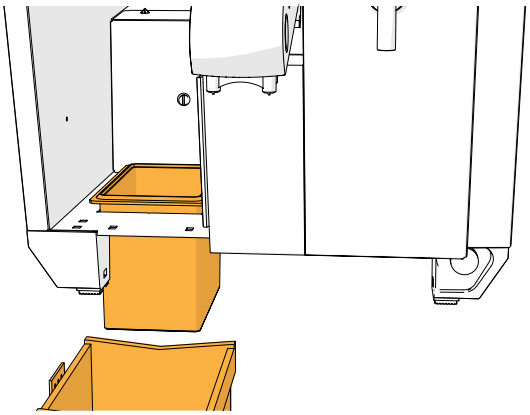
Step 3
- put the Esprecious in its final position and mark it



Step 4
- mark the location of the hole in the counter
- remove the Esprecious to create a free workplace
- cut out the hole in the counter

► ***Making a hole in your counter is your own responsibility.***

► *Protect the edges of the hole from moisture penetration.*



Step 5
- place the Esprecious on the previously marked place
- place the waste chute in the Esprecious
- put the waste bin back in place
- place the bin under the cabinet pass-through
- close the door

Step 6
- enter programming
  - » select machine settings
  - » select process settings
  - » select waste bin counter
- set the 'waste bin counter' *OFF*

► *Emptying the bin is now your responsibility. There is no longer a warning message.*

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