SERVICE MANUAL
BEVERAGE CENTER
GENIO 2

Version 1.1 en

CONTENTS

PREFACE

i Please keep this manual together with the corresponding service documentation. This way you are assured to have the necessary information.

The purpose of this Service Manual is to provide the service personnel with all necessary information with regards to correct handling, maintenance and repair of the Genio 2 beverage center W.I.K. model 9771.
This beverage center is a further development of the Genio beverage center W.I.K. 9747.12.

This Service Manual should be used by the technicians as a valuable aid to guarantee the permanent readiness for use of the machine. In order to take full advantage of all the functions, it is absolutely necessary to follow the instructions in this manual.

If you have any questions, please contact your country's Nestlé hot line, listed in the user manual.

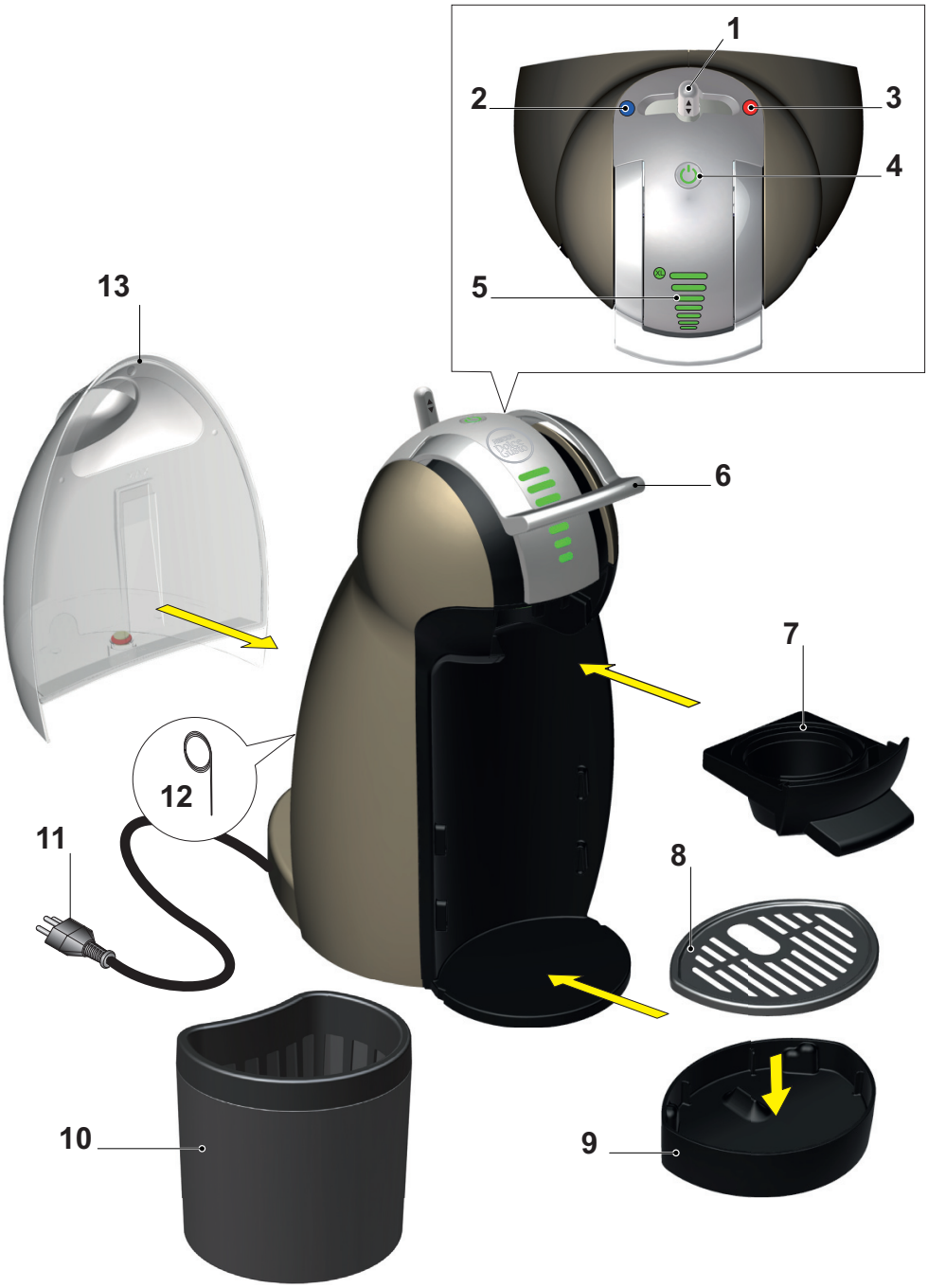
For a quick information access, this service manual is also available in the internet as a PDF file.

i If you display the service manual on a computer you can click on the contents or on page references to jump to the required information immediately.

The required utility software to read PDF files (Adobe Reader®) for PCs and MAC computers can be downloaded (under http://www.adobe.com) for free - please click the logo:

MAIN COMPONENTS

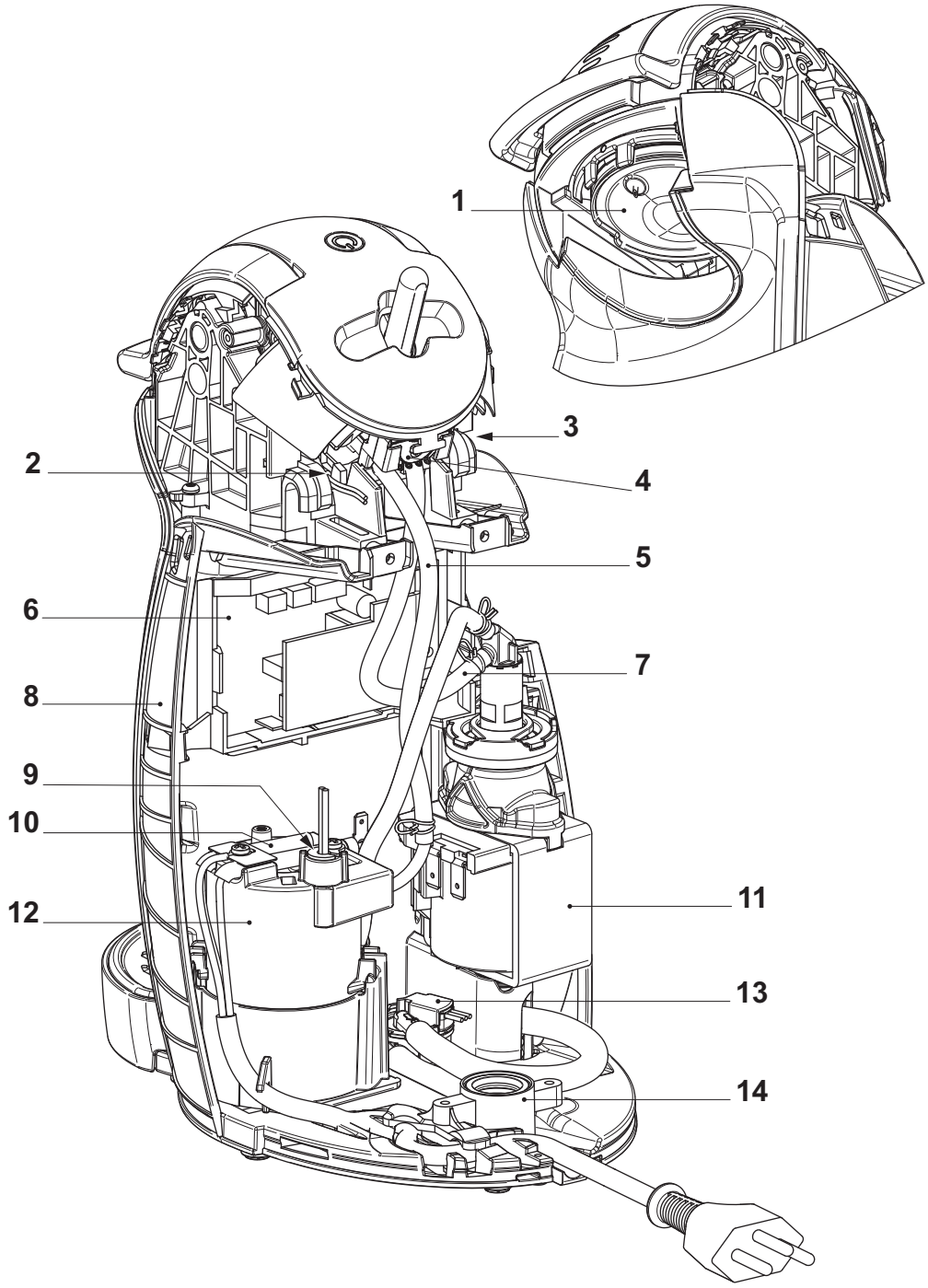
Overview of external parts



1. Selection lever
2. Cold water setting
3. Hot water setting
4. Power button, illuminated (red, green)
5. Bargraph (display of filling quantity)
6. Locking handle
7. Capsule holder
8. Drip grid
9. Drip tray
10. Capsule bin
11. Power cord (e.g. with Swiss power plug)
12. Cleaning needle
13. Water tank

i This is the Krups machine version which is also shown in the repair chapter.

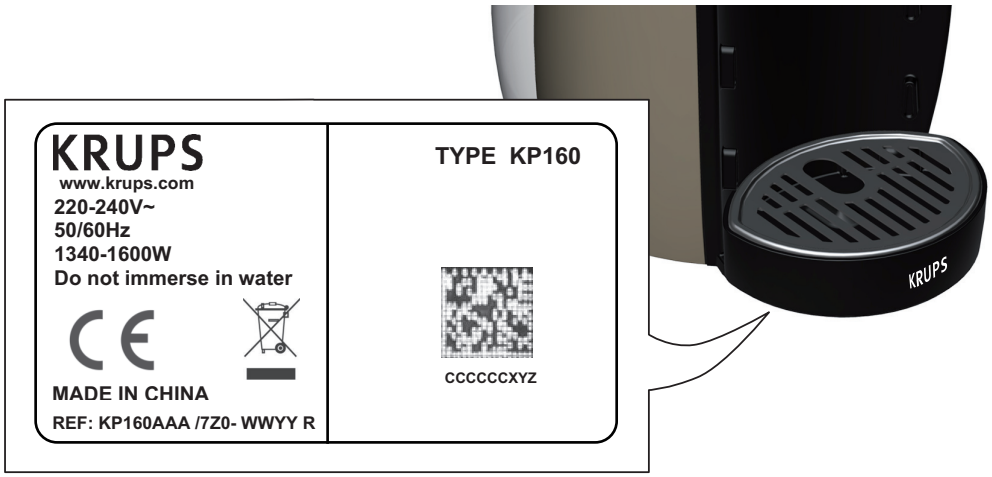
Overview of internal parts



1. Needle plate
2. Reed sensor (capsule holder detection)
3. Electromagnet
4. Valve micro switch (selection lever setting)
5. Hot water pressure hose
6. Electronic main board with support
7. Cold water pressure hose
8. Main housing
9. NTC temperature sensor
10. Thermo fuses (2x)
11. Pump
12. Thermoblock
13. Flow meter
14. Water tank connector

Overview of rating plates

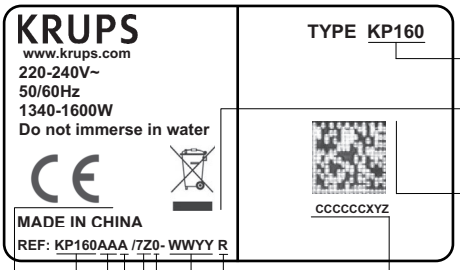
Krups rating plate



The rating plate is laser-engraved.

The rating plate

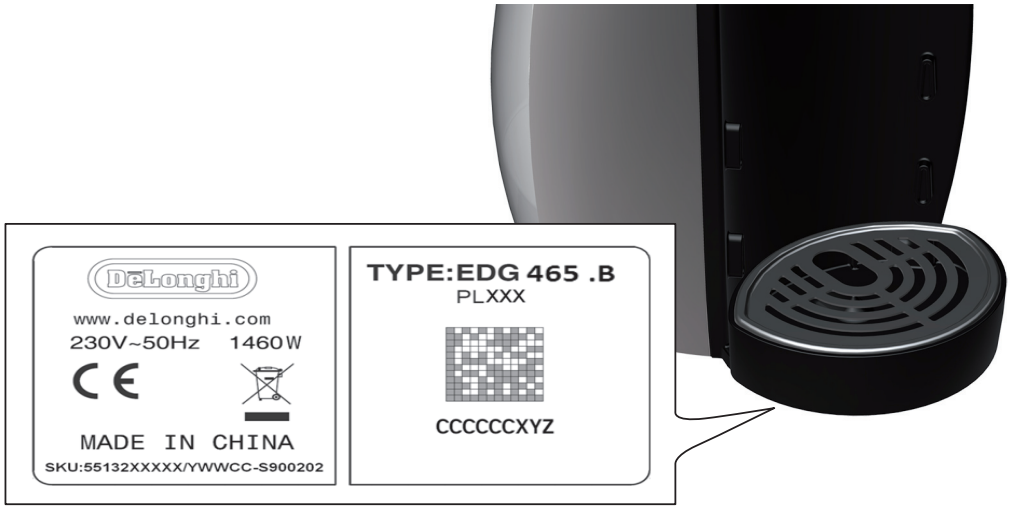
- can be found on the underside of the machine,
- carries the following information:



- Trade reference
- Special disposal icon (do not dispose with ordinary waste)
- Data Matrix code
- Bar code label
  CCCCCC = Serial number : 0 - 999999
  X = Colour code : 6 = red, 9 = titanium, 8 = espresso red, 0 = piano black / matt black, 2 = white / chocolate
  Y = Country code: 0 = EU, 1 = CH, 2 = UK, 3 = US 4 = Brazil, 5 = Chile, 6 = Argentina, 7 = HK, 8 = Korea, J = Japan, M = Mexico, T = Taiwan
  Z = Pump type : D = Defond, U = Ulka
- Only if RoHS (Restriction of Hazardous Substances) compliant
- WWYY = Fabrication date : WW = Week / YY = Year
- Technical variant
- Fabrication origin code Technical variant
- Origin variant if production transfer
- Commercial variant
- Trade reference
- Approval sign for European Union

De´Longhi rating plate

The rating plate is laser-engraved.



The rating plate

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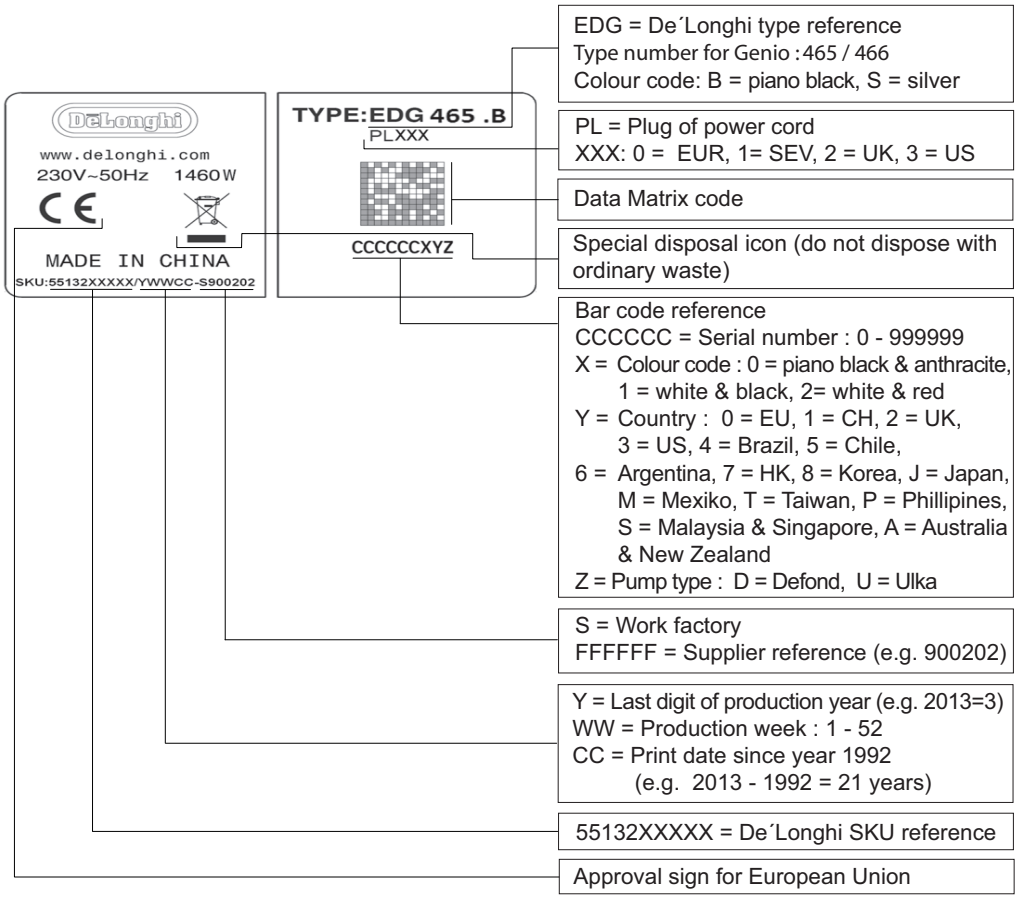
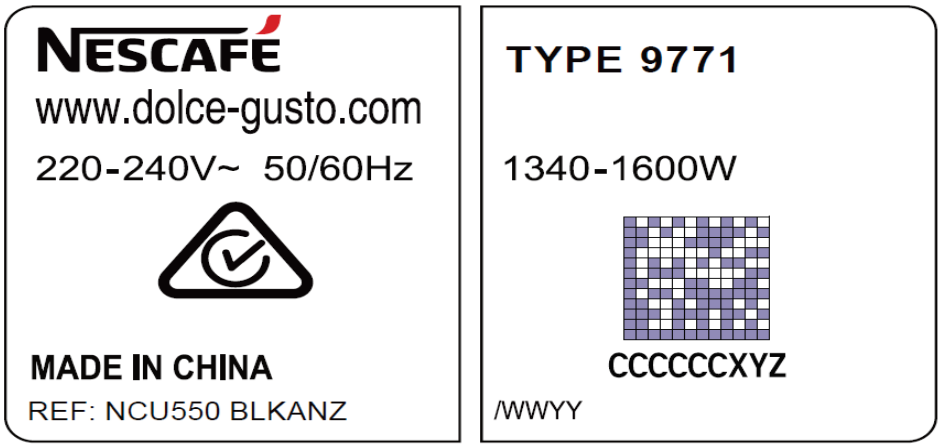
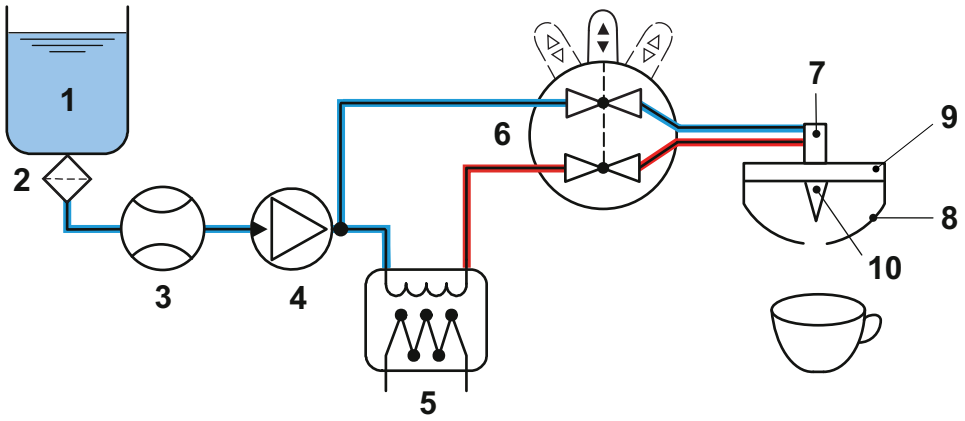
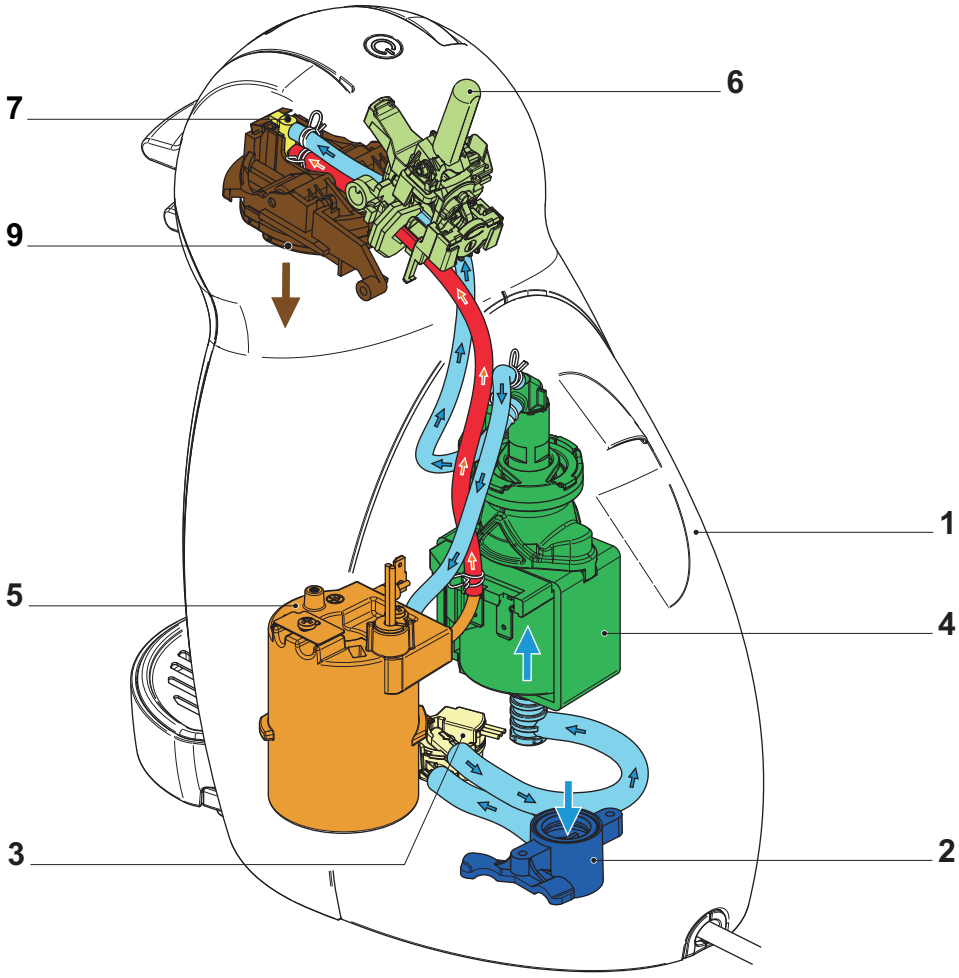


Breville rating plate (example)



Water circuit





1. Water tank with valve
2. Filter and connector
3. Flow meter
4. Pump
5. Thermoblock
6. Selection lever
7. F-connector
8. Capsule holder
9. Needle plate
10. Needle

Technical data

Mains voltage

Europe (UK, CH, DE, AT, FR, ES, PT, IT, NL, LU, BE, NO, SE, FI, DK, GR, CZ, SK, PL, HU, RU, UA, LT, LV, EE, BG, RO, SI, BiH, SRB, HR)... 230 V / 50 Hz
USA / Canada ..... 120 V / 60 Hz
Japan ..... 100 V / 50/60 Hz
Mexico, Brazil ..... 127 V / 60 Hz

Approvals (country dependent) e.g.

Europe ..... CE
USA, Canada ..... UL, C-UL, CSA
Japan ..... JET
Russia ..... PCT

Power consumption ..... max. 1’500 W
Thermoblock ..... 1’400 W
Pump ..... 41 W

Energy consumption (CECED / FEA 2009 method)

Energy efficiency class level ..... A
Daily energy consumption ..... 90 Wh
Annual energy consumption ..... 33 kWh

Preset water quantities (without capsule)

Bar graph segment 1 (bottom) ..... 53 ml
Bar graph segment 2 ..... 68 ml
Bar graph segment 3 ..... 94 ml
Bar graph segment 4 ..... 130 ml
Bar graph segment 5 ..... 146 ml
Bar graph segment 6 ..... 173 ml
Bar graph segment 7 (top) ..... 230 ml
Bar graph segment 7 + XL ..... 300 ml

Capacities

Water tank ..... max. 1 l
Drip tray ..... approx. 70 ml

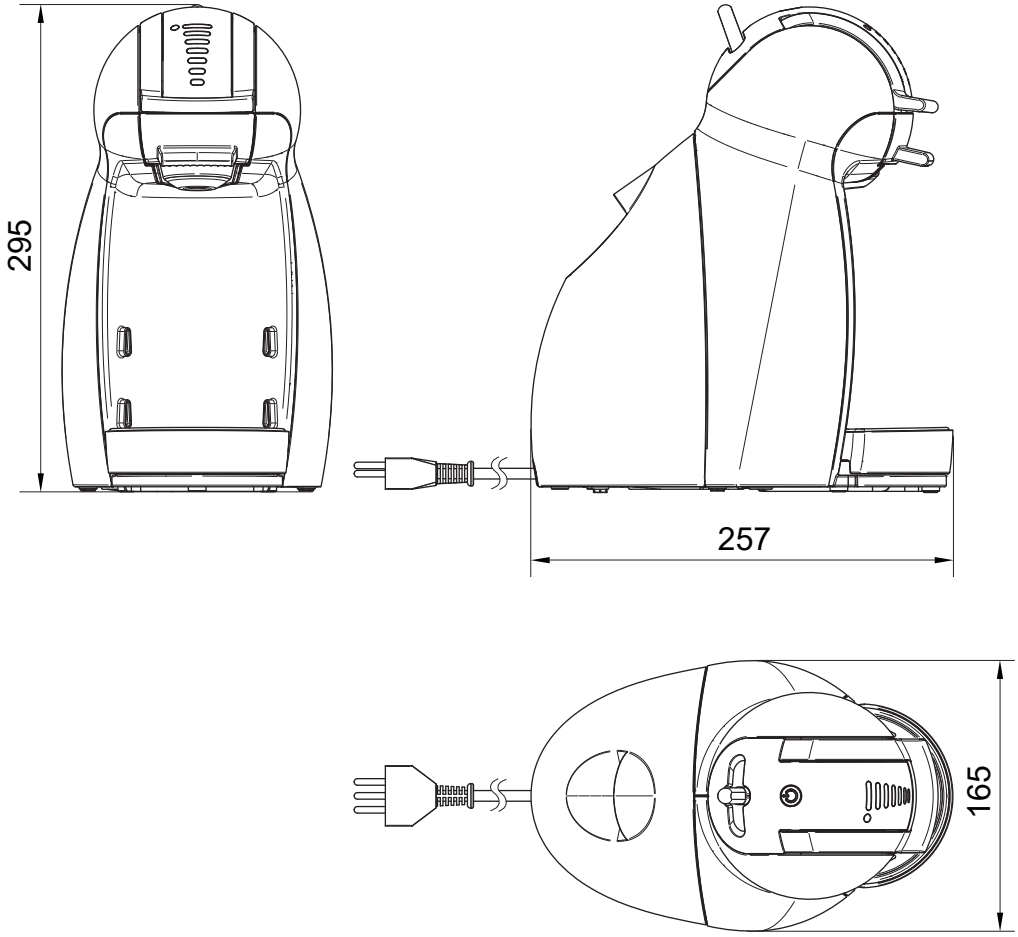
Environmental conditions

Operating temperature ..... 5 °C up to + 45 °C (+ 41 °F up to + 113 °F)

Various data

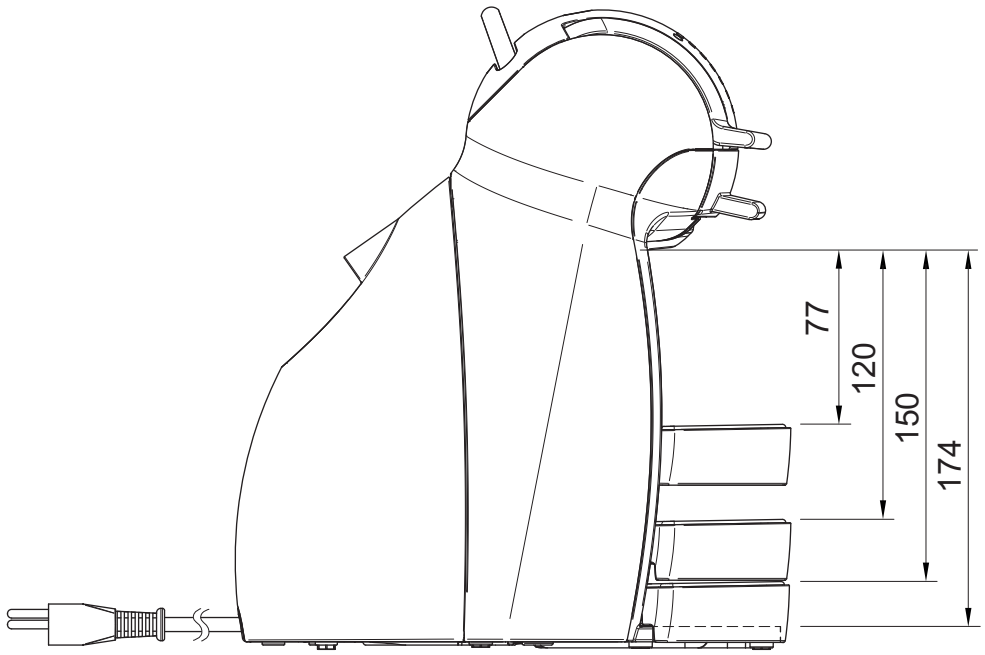
Pre-heating time ..... approx. 30 sec.
Automatic shut off time (eco mode) ..... 5 min
Hot beverage outlet temperature ..... 85 °C ± 5 °C (185 °F ± 41 °F)
Descaling temperature ..... 65 °C to 70 °C (149 °F to 158 °F)
Safety temperature for thermo block (thermal cut-off) ..... 133 °C (271 °F)
Safety temperature for pump (thermal cut-off) ..... 113 °C (235 °F)
Pump pressure ..... max. 13.5 ± 1.5 bar
Noise ..... max. 65 dB(A)

Dimensions [mm]



Dimensions (LxWxH) ..... 257 x 165 x 295 mm
Power cord length ..... approx. 1 m
Weight of machine (without water) ..... approx. 2.4 kg

Distance from drip grid to coffee outlet [mm]



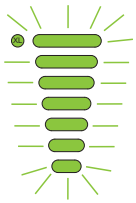
Espresso .....77 mm
Mug .....120 mm
Tall glass .....150 mm
Higher cup (drip tray removed) .....174 mm

OPERATING

Machine status

After switching on, an automatic self-test is performed to check if the
- capsule holder is inserted (with reed sensor)
- NTC is connected,
- NTC is not short circuited,
- the selection lever is in middle position,
- the thermoblock reaches the working temperature in about 30 seconds.

Operating modes and detected failures are indicated by LED signals of the power button as listed in the following table:

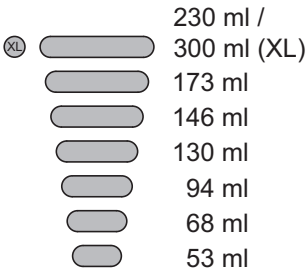
Operating modes	Power button	Bar graph	LED signals
Economy mode / Off			—
Heating up / self-test			red, blinking, approx. 30 sec.
Ready			green, steady
After beverage preparation (cool-down time)			red, blinking, approx. 5 sec.
Descaling ready and during descaling cycle			green, slow blinking
Error mode: Hardware error Pump switch-on time exceeds 10 min			Power button: red, rapid blinking with 2.5 Hz
Error mode: No water flow • Water tank or fluid system empty • Fluid system blocked (calcified or needle blocked)			Power button: alter-nating red and green, rapid blinking with 2.5 Hz Bargraph display: rapid blinking with 2.5 Hz
Error mode: Selection lever / valve position not detectable			Power button: red, rapid blinking with 2.5 Hz Bargraph: segment 1 rapid blinking with 2.5 Hz

Operating modes	Power button	Bar graph	LED signals
Error mode: Thermoblock temperature over 115 °C (239°F)			Power button: red, rapid blinking with 2.5 Hz Bargraph: segment 7 rapid blinking with 2.5 Hz

Bargraph display

The bargraph display has 3 different functionalities:

1. Display of the filling quantity

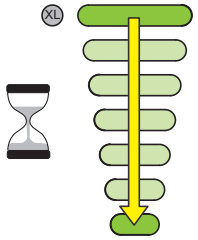


By pushing the selection lever up/down, the bargraph display shows the according filling quantity.

For easy operation, the suggested filling quantity is printed as bargraph symbol on the capsule package and on the cover of each capsule.

i Each bargraph segment corresponds to a certain water volume. However some of the suggested filling quantities may not correspond to the values in millilitres exactly.

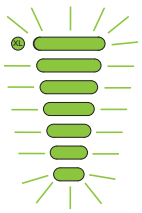
2. Countdown timer



The bargraph display shows the remaining waiting time during

- drink preparation
- rinsing
- descaling.

3. Flashlight signal

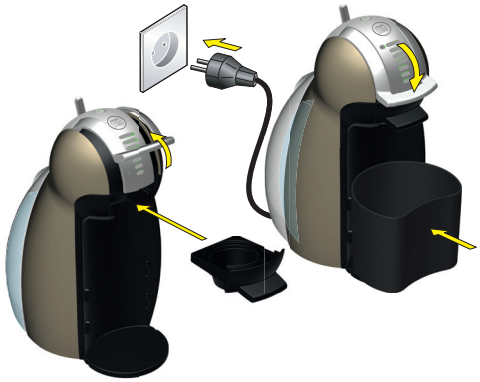


The bargraph display blinks

- during fill up mode (5 sec)
- after drink preparation (10 sec)
- if fluid system is empty or blocked.

Preparation, first use

The new machine has to be rinsed properly before first use according to the following sequence:

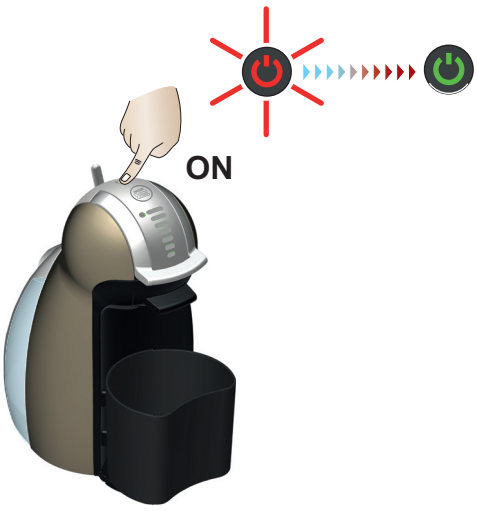


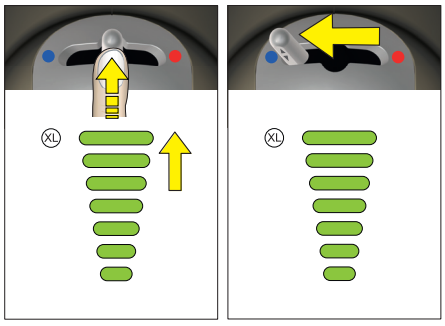
1. Rinse water tank at first.
2. Fill water tank with fresh drinking water.
3. Insert water tank into machine.
4. Remove drip tray

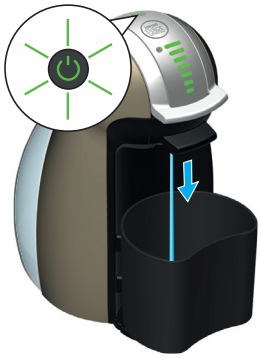
5. Open locking handle and insert empty capsule holder. Then close locking handle.
6. Place capsule bin (without insert) under coffee outlet.
7. Connect power plug to mains power socket.

i The machine will not work without a capsule holder inserted.

i The pre-heating time is approx. 30 sec. The bargraph display shows the remaining time (countdown).





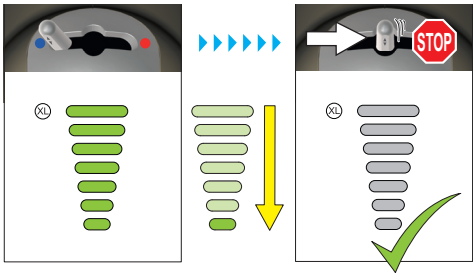


8. Switch machine on.
9. Wait until power button light turns steady green and machine is ready.

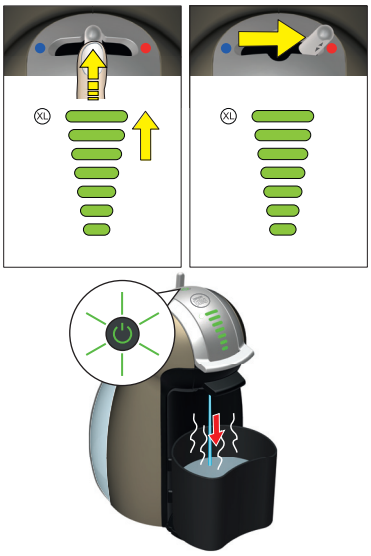
10. Push selection lever up to set the bargraph display to maximum level.
11. Move selection lever to the left for cold water rinsing.
12. Machine starts rinsing.

i If no water comes out and machine switches to error mode:

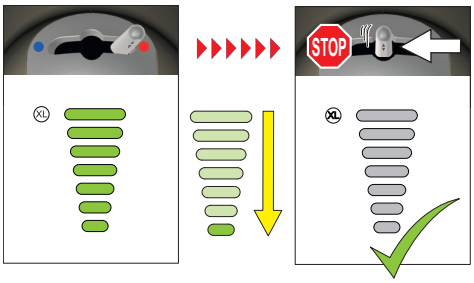
- Switch machine off and on again.
- Check if water tank is full and inserted correctly.
- Move selection lever again to the left to fill the empty fluid system.



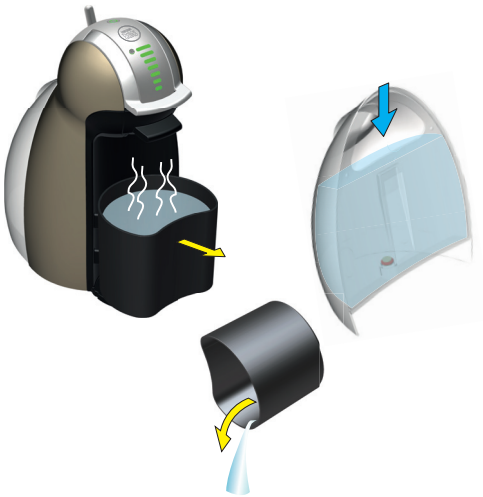
13. Wait until countdown is finished and machine stops.



14. Push selection lever up to set the bargraph display to maximum level.
15. Move selection lever to the right for hot water rinsing.
16. Machine starts rinsing.



17. Wait until countdown is finished and machine stops.



18. Empty capsule bin.
19. Refill water tank with fresh drinking water.

Preparing a beverage

The drip tray is height-adjustable in 3 levels.

Choose an appropriate cup size for beverage.

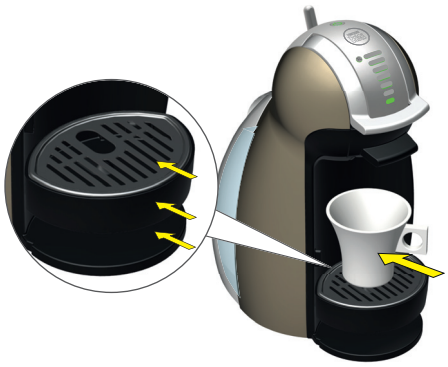
Users allergic to dairy products: clean capsule holder under running water before use.

For capsule product range see user manual or: www.dolce-gusto.com

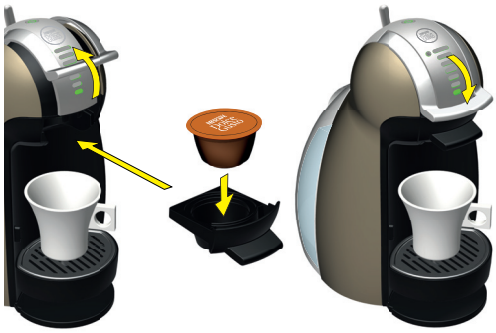
For filling quantities see bargraph symbol - on capsule, - or on product package, - or in product overview in user manual.

The flow speed resp. preparation time depends on the used capsule.

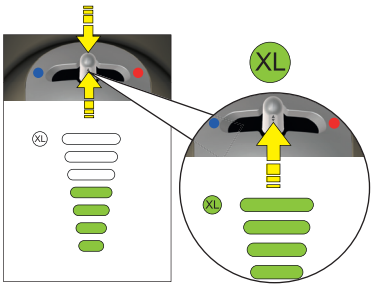
Extraction can be stopped manually (e.g. cup overflows) by moving the selection lever back to the middle position.

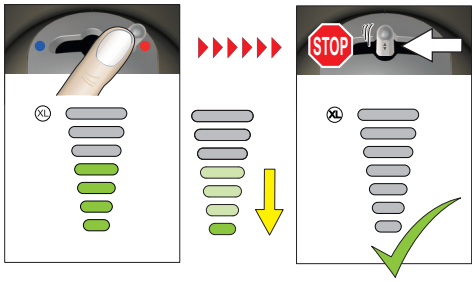


1. Check if water tank is filled.
2. Check if machine is ON and ready.
3. Adjust drip tray according to chosen beverage and cup size.
4. Place cup on drip tray.

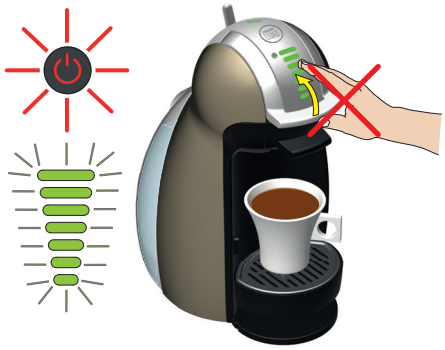


5. Check sequence for beverages with 2 capsules.
6. Check bargraph symbol for setting of filling quantity.
7. Open locking handle and pull out capsule holder.
8. Insert a capsule in capsule holder (e.g. Lungo).
9. Insert capsule holder in machine and close locking handle.





10. Set bargraph display with selection lever according to capsule's bargraph symbol or to your own taste. Choose XL setting for an extra large cup (see detail).
11. Push the selection lever to the right for hot beverages or to the left for cold beverages.
12. Beverage preparation starts and bargraph display counts down progressively until machine stops.



13. Wait until the bargraph display stops flashing and the power button stops blinking red after about 10 seconds.

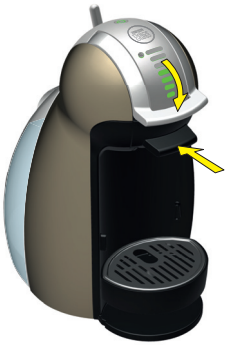
14. Take cup from drip tray.
15. Open the locking handle.

⚠ Danger of damage and hot water / product splashes. Do not open locking handle prematurely.

16. Pull out capsule holder and remove used capsule.
17. Discard used capsule in capsule bin or trash bin.

18. Rinse both sides of the capsule holder with water and let dry.

⚠ Risk of burning from hot capsule. Do not touch capsule immediately after use.



19. Insert capsule holder into machine.

Economy mode

i It is not possible to de-activate the economy mode.

After 5 minutes without operation, the machine switches itself OFF automatically.
This feature helps to save electricity by reducing the amount of power the machine draws while it is not in use and helps to protect the life of the machine.
To resume operation, simply press the power button.

Empty fluid system for shipping

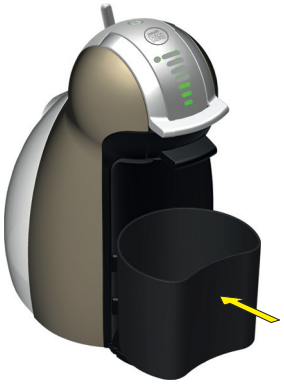
i For shipping a machine, it is important to empty the fluid system that can contain up to 25 ml water.

i The machine will not work without inserted capsule holder.

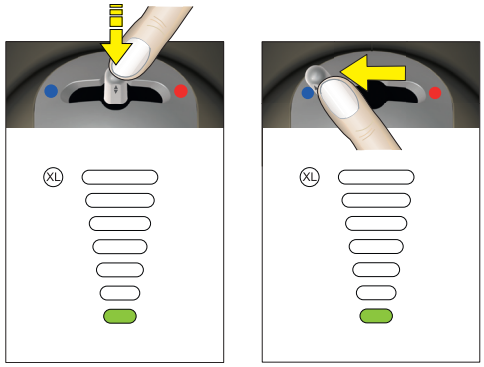
⚠ Prolonged dry-running can damage the pump. Do not push the selection lever in the same direction repeatedly.

1. Empty water tank and drip tray.

2. Check that capsule holder is empty.
3. Reinstall capsule holder.

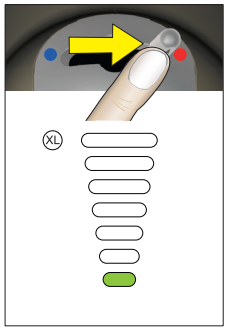


4. Place capsule bin under outlet.

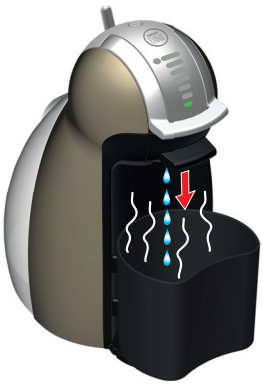


5. Set bargraph display to minimum level with selection lever (if not displayed already).
6. Push selection lever to the left (cold water).

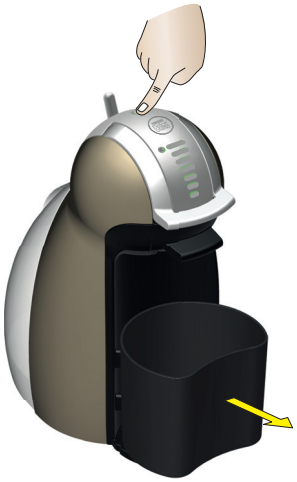
7. The remaining water drops into the capsule bin.
8. After detecting no more water flow, the selection lever returns to the middle position and the machine switches to error mode.



9. Push selection lever to the right (hot water).



10. The remaining water is heated and drops into the capsule bin.
11. After detecting no more water flow, the selection lever returns to the middle position and the machine switches to error mode again.



12. Switch off machine.
13. Remove and empty capsule bin.
14. Clean machine and all accessories. Use only clean cleaning tools.

i In error mode, the power button blinks red and green alternately and the bar-graph segment blinks green.

i Send machine back with capsule holder and all provided accessories. For packing see page 72.

TROUBLESHOOTING

Checklist

The checklist enables you to rapidly locate faults on the machine and to initiate appropriate repair action. Follow the check procedure. Repair any faults found and check if the machine is operating perfectly.

Check procedure	Symptoms	Action / repair work	Further action / repair work
1 Check general condition of machine with accessories and look for visible damage	1.1 Parts of housing are broken or damaged (e.g. snap connections or latches)	YES - Replace parts if necessary NO - Go to point 1.2	see page 30 and following
	1.2 Accessories are broken or damaged	YES - Replace all broken or damaged accessories NO - Go to point 1.3	—
	1.3 Shaky extraction head	YES - Fasten 2 screws on extraction head NO - Go to point 1.4	see page 54
	1.4 Power cord is damaged	YES - Replace power cord NO - Go to point 2	see page 43
2 Check mechanical elements	2.1 Capsule holder inserts correctly into the extraction head?	YES - Go to point 2.2 NO - Replace capsule holder	NO - Check needle plate (see page 27)
	2.2 Capsule holder magnetic at right corner on backside?	YES - Go to point 2.3 NO - Replace capsule holder.	—
	2.3 Magnet on backside of capsule holder: Epoxy resin cover cracked or brittle?	YES - Replace capsule holder NO - Go to point 2.4	—
	2.4 Drip tray inserts correctly in all 3 levels?	YES - Go to point 2.5 NO - Check if drip tray is deformed or damaged, replace if necessary.	—
	2.5 Damaged or broken selection lever?	YES - replace extraction head if necessary NO - Go to point 2.7	see page 54
	2.6 Damaged or broken locking handle?	YES - replace extraction head if necessary NO - Go to point 2.7	see page 54
	2.7 Locking handle can be pulled up while making a beverage?	YES - Replace extraction head NO - Go to point 3	see page 54
3 Fill water tank	3.1 Water tank is leaking on transport	YES - Replace water tank NO - Go to point 3.2	—
	3.2 Water tank is leaking when it is inserted in the machine	YES - Try new water tank and check if it is still leaking NO - Go to point 4	YES - Replace water tank connector (see page 34) NO - Replace old water tank

Check procedure	Symptoms	Action / repair work	Further action / repair work
4 Plug into mains and switch ON machine	4.1 Machine (with capsule holder inserted) is not working - no function	YES - a) Check if power cord is functional	YES - Go to point b) NO - Replace it (see page 43)
		YES - b) Check if all electrical connectors are connected	YES - Go to point c) NO - Connect them (see page 56)
		YES - c) Check if thermoblock's thermal cutoff fuses (133 °C) are defective	YES - Replace power cord and electronic mainboard. If necessary replace also the thermoblock (see page 46). NO - Go to point d)
		YES - d) Check if power button and its indicator (LED) is functional	YES - Go to point e) NO - Replace extraction head (see page 54). If necessary replace electronic mainboard also (see page 49)
		YES - e) Check if reed contact is functional	YES - Go to point f) NO - Replace extraction head (see page 54)
		YES - f) Check if selection lever can be moved up/down and bargraph display lights up accordingly	YES - Go to point g) NO - Replace extraction head (see page 54)
		YES - g) Check if pump starts if selection lever is pushed to the left.(cold water)	YES - Go to point h) NO - Replace pump (see page 36)
		YES - h) Check if pump starts if selection lever is pushed to the right (hot water)	YES - Go to point 4.3 NO - Replace the extraction head (valve switch might be broken), see page 54. If still not working, replace also electronic mainboard, see page 49.
		YES - i) Check if pump's thermal cut off fuse (98 °C) is defective	YES - Replace pump (see page 36) NO - Replace pump (see page 36) or electronic mainboard (see page 49) or extraction head (see page 54)
	4.2 Indicator (LED) flashes red rapidly (error mode)	YES - a) Check if NTC temperature sensor is functional	NO - Replace NTC temperature sensor (see page 41) YES - Go to point b)
		YES - b) Check if electrical wires are functional NO - Go to point 4.3	YES - Replace electronic mainboard (see page 49) NO - Replace defective wire(s), see page 56
	4.3 Machine is working without capsule holder	YES - Replace the extraction head NO - Go to point 4.4	see page 54
	4.4 Machine is hissing after heating up.	YES - Replace the extraction head NO - Go to point 5	see page 54

Check procedure	Symptoms	Action / repair work	Further action / repair work
5 Checks while preparing a beverage (see page 18)	5.1 No extraction possible (no water at coffee outlet)	YES - a) Water tank is empty?	YES - Fill water tank NO - Go to point b)
		YES - b) Water tank is correctly inserted?	YES - Go to point c) NO - Insert water tank correctly
		YES - c) Filter in water tank connector is blocked or not in right position?	YES - Clean filter or replace water tank connector if necessary (see page 34) NO - Go to point d)
		YES - d) Fluid system is empty?	YES - Prime fluid system without a capsule: Press cold and hot water button in manual mode successively. NO - Go to point e)
		YES - e) Fluid system is blocked by scale?	YES - Descale the fluid system (see page 66) NO - Go to point f)
		YES - f) Injector is still clogged after descaling?	YES - Deblock needle with cleaning needle (see page 27) NO - Replace needle plate (see page 54)
	5.2 Hot water temperature is too low (less than 70 °C / 158 °F)	YES - a) Check if NTC temperature sensor is functional	NO - Change NTC temperature sensor (see page 41) YES - Go to point b)
		YES - b) Fluid system is scaled?	YES - Descale fluid system (see page 66) and go to point c) NO - Replace electronic mainboard (see page 49)
		YES - c) Valve malfunction?	YES - Replace extraction head (see page 54) NO - Go to point d)
		YES - d) Flow rate of pump out of range?	YES - Replace pump (see page 36) NO - Go to point 5.3
	5.3 Hot water temperature is too high (more than 95 °C / 203 °F)	YES - a) Check if NTC temperature sensor is functional	NO - Change NTC temperature sensor (see page 41) YES - Go to point b)
		YES - b) Fluid system is scaled?	YES - Descale fluid system (see page 66) NO - Go to point 5.5
		YES - d) Flow rate of pump is out of range?	YES - Replace pump (see page 36) NO - Go to point 5.4
	5.4 Cold water temperature too high (5 °C / 41 °F more than water tank temperature)	YES - Valve malfunction? NO - Go to point 5.5	YES - Replace extraction head (see page 54) NO - Go to point 5.5
	5.5 The capsule does not fall out of the capsule holder	YES - Check capsule and capsule holder for deformations NO - Go to point 6	YES - Replace capsule holder if necessary

Check procedure	Symptoms	Action / repair work	Further action / repair work
6 Check for leaks and/or flow rate while preparing a beverage (see page 18)	6.1 Leakage at extraction head	YES - a) Capsule has multiple perforations? NO - Go to point 6.2	YES - Perforate capsule only once, see user manual NO - Replace extraction head (see page 54)
	6.2 Water underneath the machine	YES - Defective pressure hoses? NO - Go to point 6.3	YES - Replace defective pressure hoses with clips NO - Go to point 6.4
	6.3 Flow rate out of range	YES - a) Fluid system is scaled?	YES - Descale the fluid system (see page 66) NO - Go to point b)
		YES - b) Injector plate is blocked?	YES - Deblock needle with cleaning needle (see page 27) and descale again (see page 66). Replace needle plate if sealing ring is defective. NO - Go to point c)
		YES - c) Filter of water tank connector is blocked?	YES - Clean filter or replace water tank connector if necessary (see page 34) NO - Replace pump (see page 36)
7 Check for loud noises or vibrations	7.1 Check vibrations while putting a plastic beaker on the drip grid	YES - Coffee machine or plastic beaker is moving around	YES - a) Check if drip tray is inserted correctly, set it right if necessary NO - Go to point b)
			YES - b) Check if rubber feet are missing, replace if necessary NO - Go to point c)
			YES - d) Pump is not firm in its support, replace it (see page 36) NO - Go to point 8)
	7.2 Check vibrations on the water tank (water is waving)	YES - Water tank is vibrating on the machine?	YES - Pump is not firm in its support, replace it (see page 36) NO - Go to point 8
8 Perform final tests (see page 57)			
9 Perform final cleaning (see page 70)			
No trouble found during the check procedure? Contact the sales partner in your local region as per the Instruction book and warranty card .			
End of check procedure.			

REPAIR

General

This chapter contains special safety and assembly notes.

Non-observance of these notes can lead to injuries and damages!

The disassembly and repair procedures are presented as step by step instructions.

The position numbers of the parts correspond to the **Krups spare parts list**. Parts not included in the spare parts list are marked with capital letters.

i De´Longhi spare parts have different position and part numbers, see page 78 and following.

Safety information

WARNING

Danger of electric shock - live parts inside coffee machine.

Unplug from the mains before disassembling the machine - appliance must be isolated!

- Empty the fluid system before disassembly (if possible) and shipment (see page 20).
- The machine is screwed together with special safety screws. Please insert the same screws when reassembling the machine - for safety reasons for the user.
- With each disassembly and repair
  - always accomplish internal cleaning
  - renew all pressure hoses and clips when disassembled.

Every time a pressure hose or a clip is disconnected, it must be replaced by a new one.

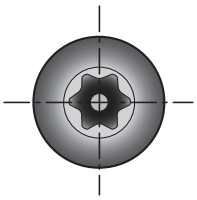
- Handle snap connections and latches with care to avoid any damage.
- If it is necessary to cut or pull off hoses, hold a towel ready to wipe away leaking water.

Tools and repair accessories

With the following tools, all described disassembly and repair work can be done:

Tools	Applications
Torx screwdriver for security screws, Pin-TX 10	Fastening screws for extraction head, side panels and water tank connector
Phillips screwdriver no. 1	Fastening screw for fuse holder on thermoblock. Fastening screw for NTC holding plate on thermoblock. Fastening screws (2x) for magnet bracket.
Screwdriver with blade width 4 mm	To open latches and snap connections. To remove connectors from electronic mainboard.
Flat nose pliers	Flat receptacles, hose clips, filter element of water tank connector
Fork wrench no. 12	Adjustable pump connector
Cutter (stanley knife)	Cut new pressure hoses to length.
Cutting pliers	To cut cable tie for cable routing. To cut H-connector for pressure hoses.
Heat conducting paste	NTC temperature sensor

i A pin-torx screw head looks like this:



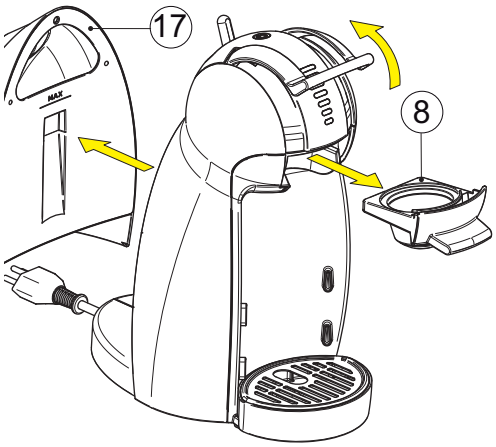
Repair work without disassembling the machine

Without disassembling the machine, the following parts can be removed resp. replaced:

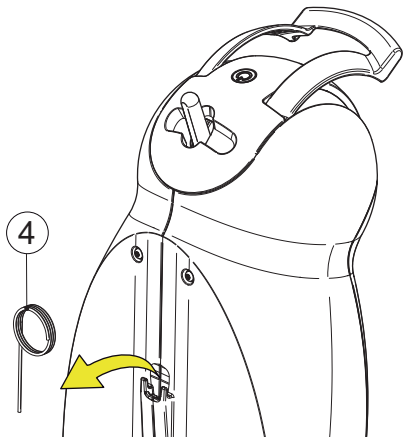
- Water tank (17)
- Capsule holder (8)
- Needle plate (5)
- Drip tray (15) and drip grid (16)

Removing / replacing needle plate, deblocking of needle

Solid residues in the water circuit can block the needle completely. An example is the development of calcium particles if the machine is not descaled periodically. Therefore this error appears during descaling frequently.

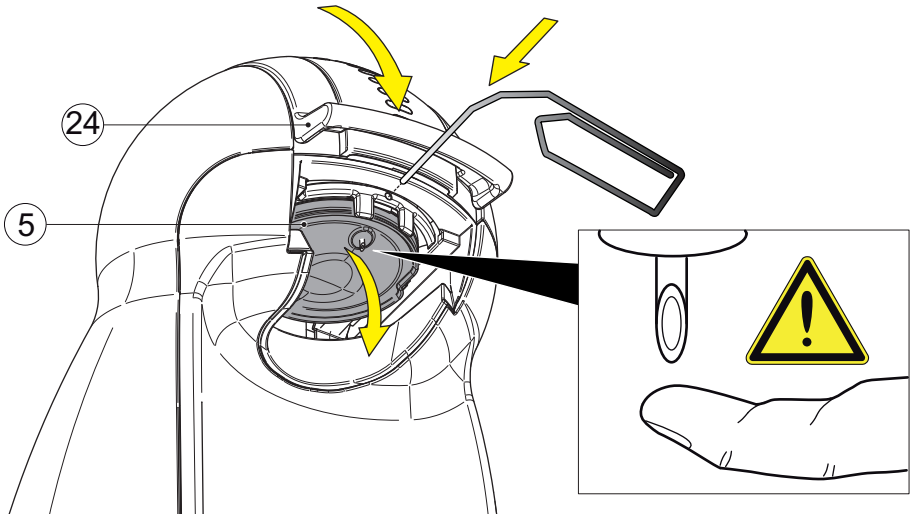


1. Remove water tank (17).
2. Remove capsule holder (8).



3. Switch off and unplug machine.
4. Take cleaning needle (4) out of support.

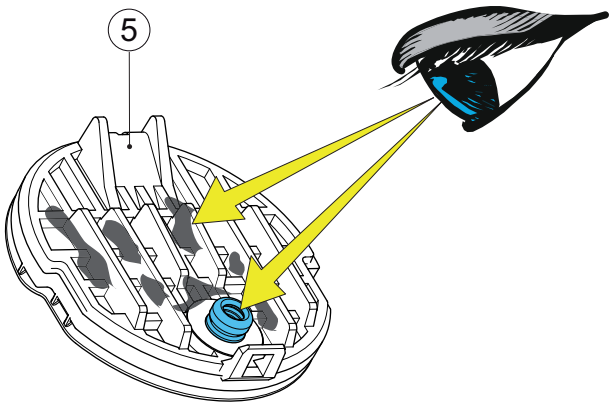
Danger of injury - sharp pointed needle!



The extraction head is adjusted to a specific needle plate. Do not assemble a different needle plates by mistake.

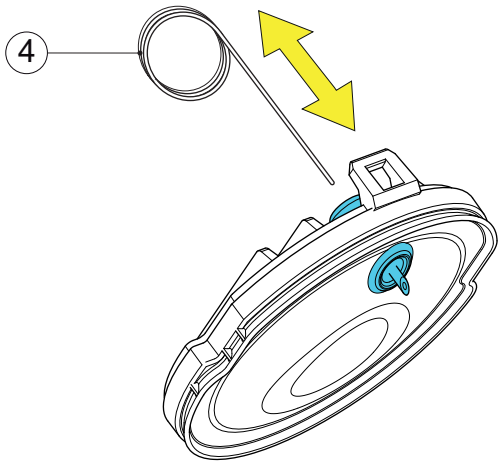
5. Close locking handle (24).
6. Release latch by pressing a suitable pin (dia. 1.8 mm max. e.g. a paper clip) through hole and remove needle plate (5) by pulling it down.

If upper side of needle plate is wet and badly soiled, the sealing ring is defect. In that case replace needle plate.

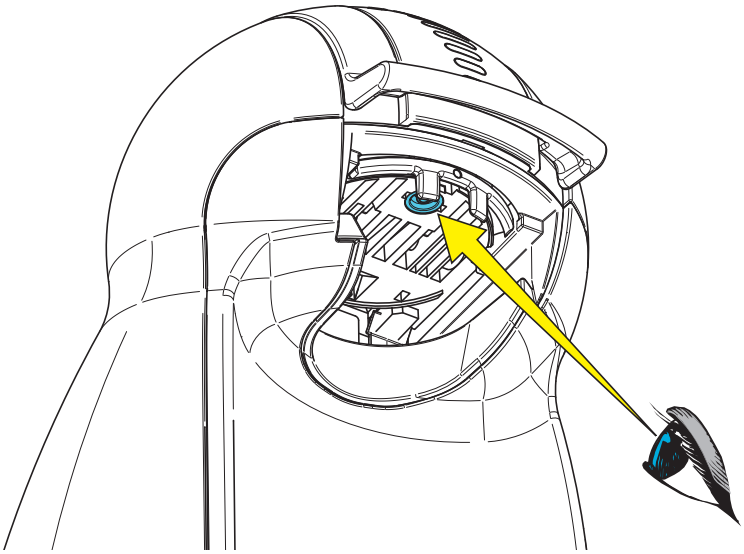


7. Examine upper side of needle plate (5).
8. Clean interior space of sealing ring with a toothpick etc.

Alternatively use a pin or needle with dia. 0.6 mm max. to clear the needle bore. A piece of polyamid fishing line or nylon monofilament with suitable diameter can be used also.



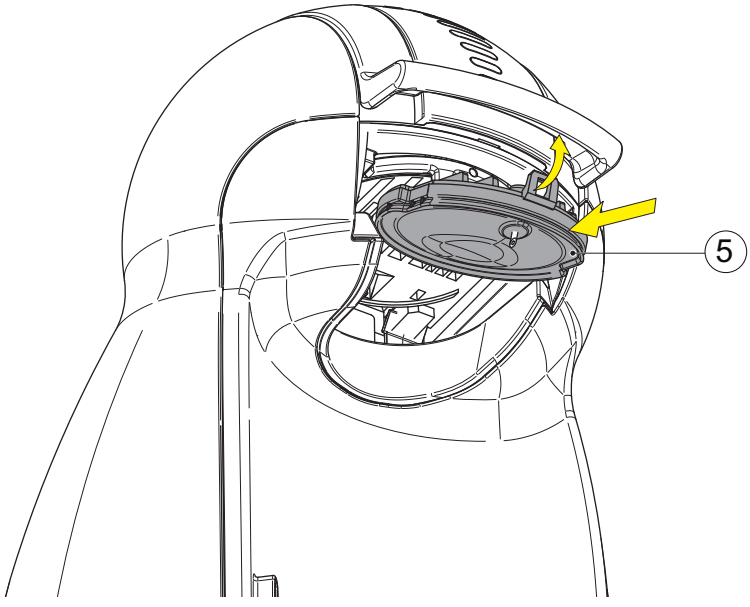
9. Clear blocked bore of needle with cleaning needle (4).



10. Check and clean outlet of F-connector in particular and needle plate holder in general.
11. Perform a complete descaling resp. rinsing cycle without mounted needle plate.

It is important to flush the machine thoroughly prior to the assembly of the needle plate. Otherwise remaining impurities can block the needle again.

Assembly information



1. Insert cleaned or new needle plate (5) with rear side first.
2. Then press needle plate against plate holder till latch at the front side engages.

No adjustment is necessary after the installation of a new needle plate.

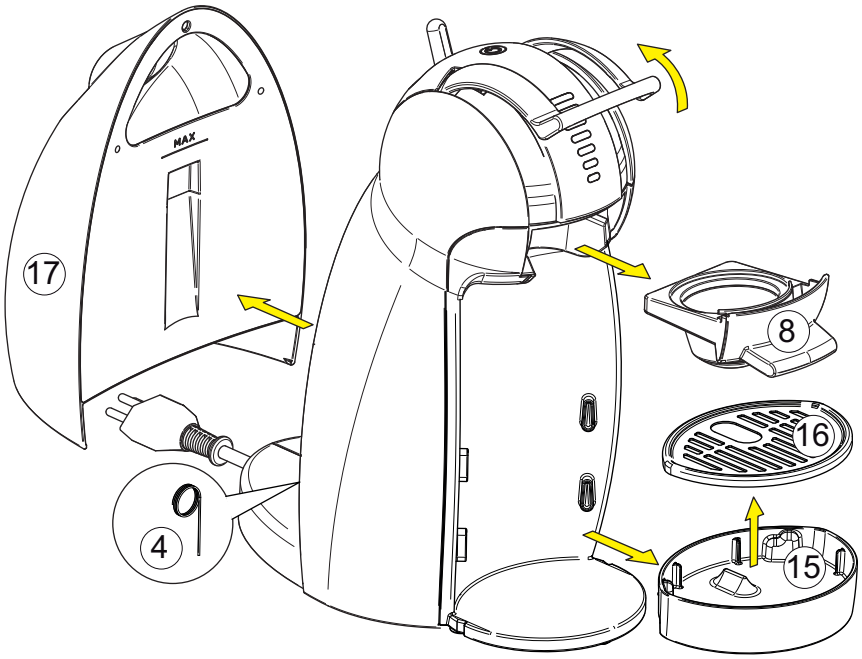
General disassembly

Remove detachable parts

Empty fluid system first if hoses have to be disconnected during repair (see page 20).

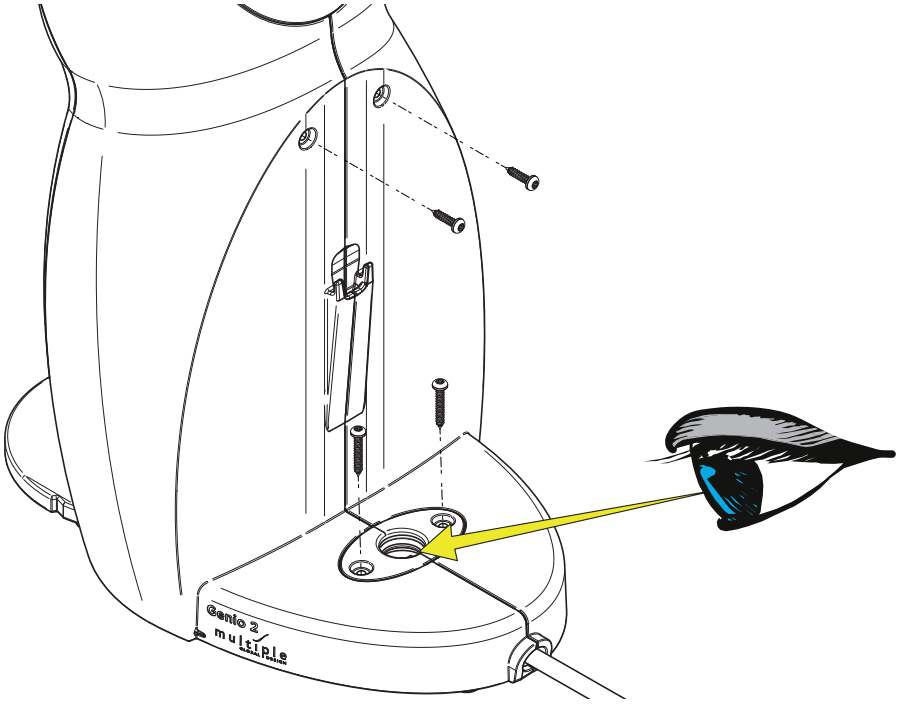
Unplug machine from the mains before disassembling - appliance must be isolated!

Store cleaning needle (4) at a safe place.



1. Remove water tank (17) and cleaning needle (4), then capsule holder (8) and drip tray (15) together with drip grid (16).

Loose screw connections

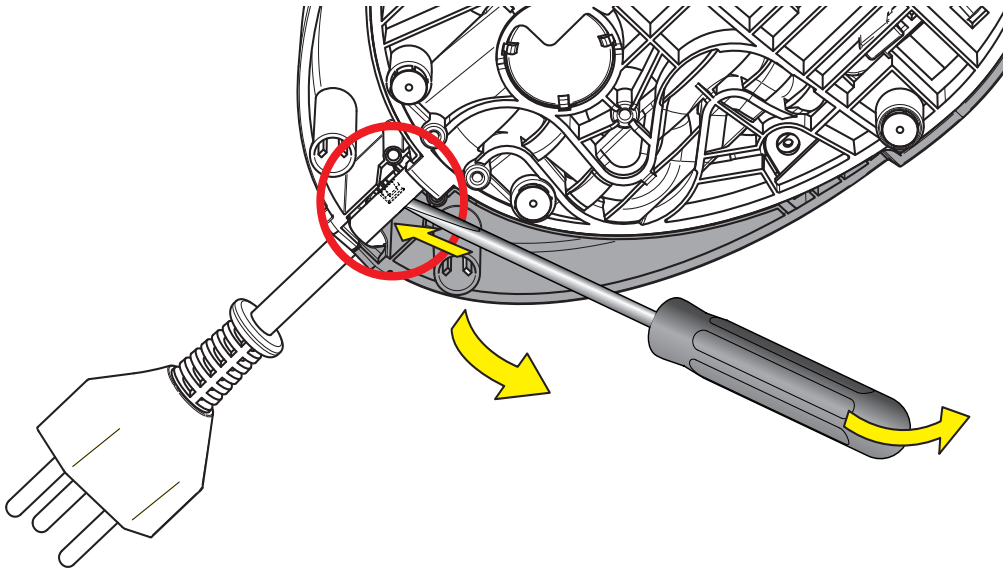


Check water tank connector: Soak up residual water in water tank connector with a cloth or kitchen paper.

Bear in mind the different screw lengths during assembly.

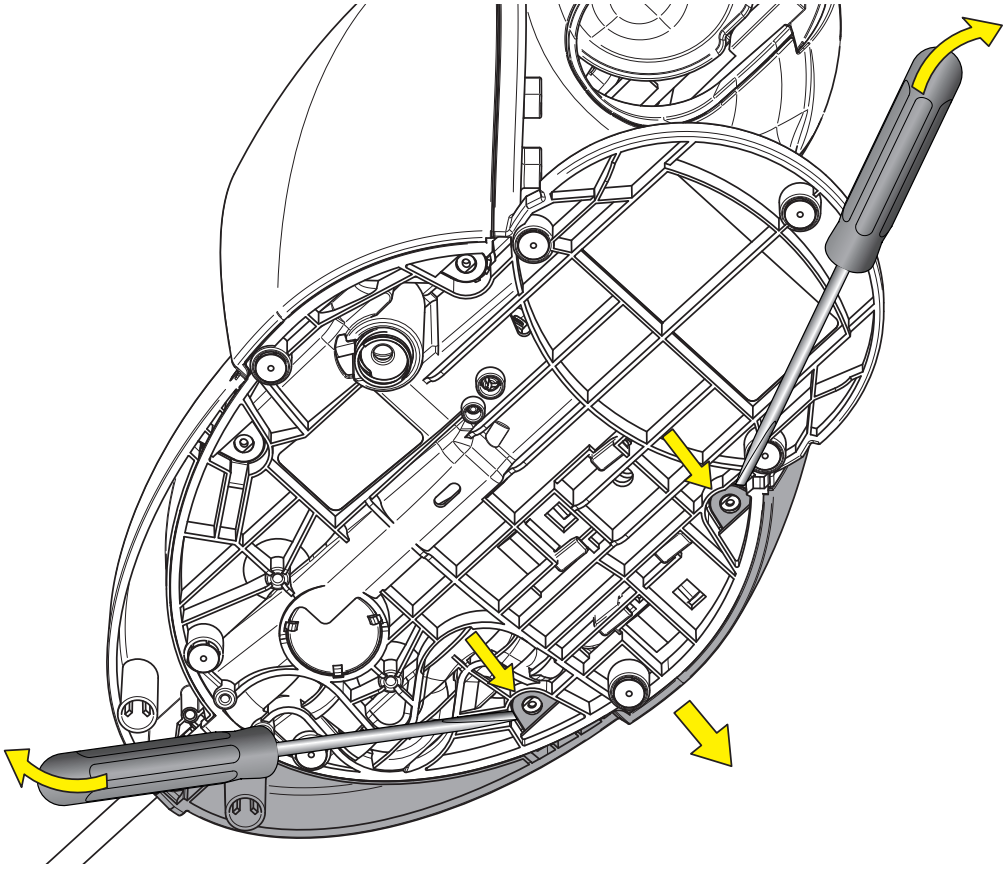
2. Loosen security screws
   - 2x behind extraction head: Safety pin Torx head screw, M3 x 12
   - 2x at water tank connector: Safety pin Torx head screw, M3 x 18

Unlatch and remove right side panel



3. Release latch behind power cord first with a screwdriver. At the same time press right side panel (part of 26) in direction shown.

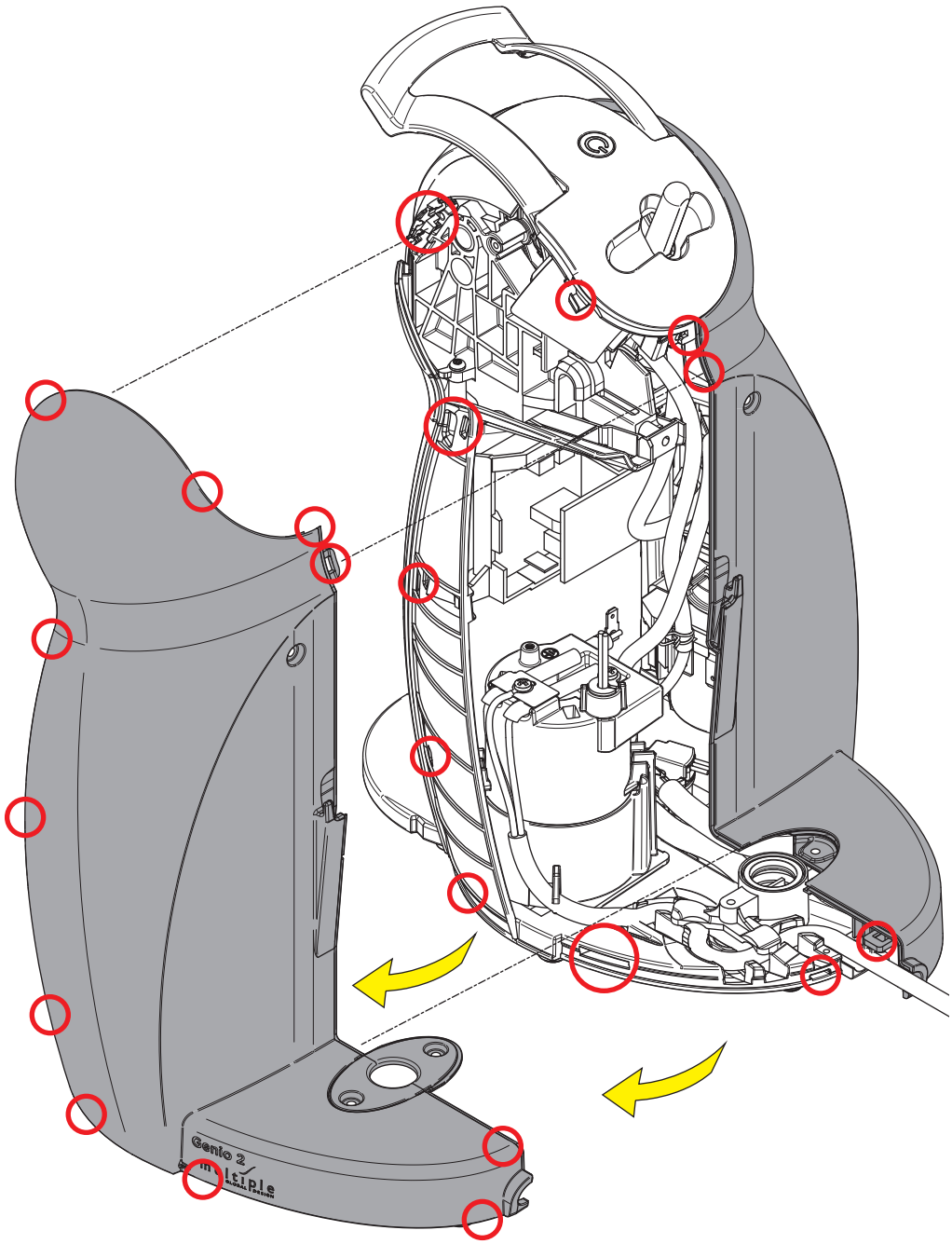
i Releasing this latch can be difficult.



4. Open 2 snap connections at the bottom with the help of a screwdriver. Lift up right side panel at the same time.

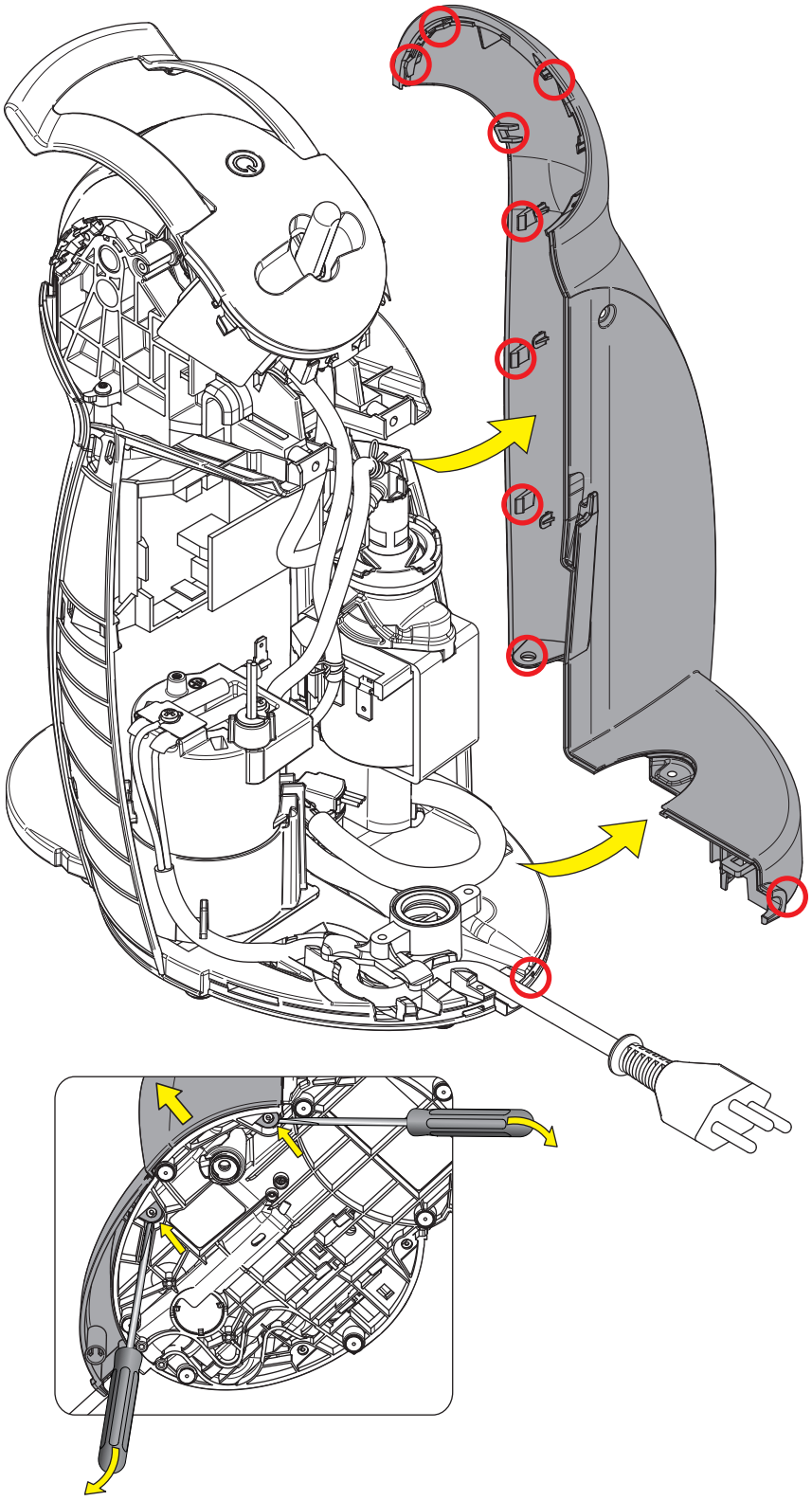
Latch, pin and recess positions are circled red.

Open the 3 delicate latches at the front side by pressing the side cover forward and outwards.



5. Unlatch right side panel carefully and completely, beginning at the bottom.

Unlatch and remove left side panel

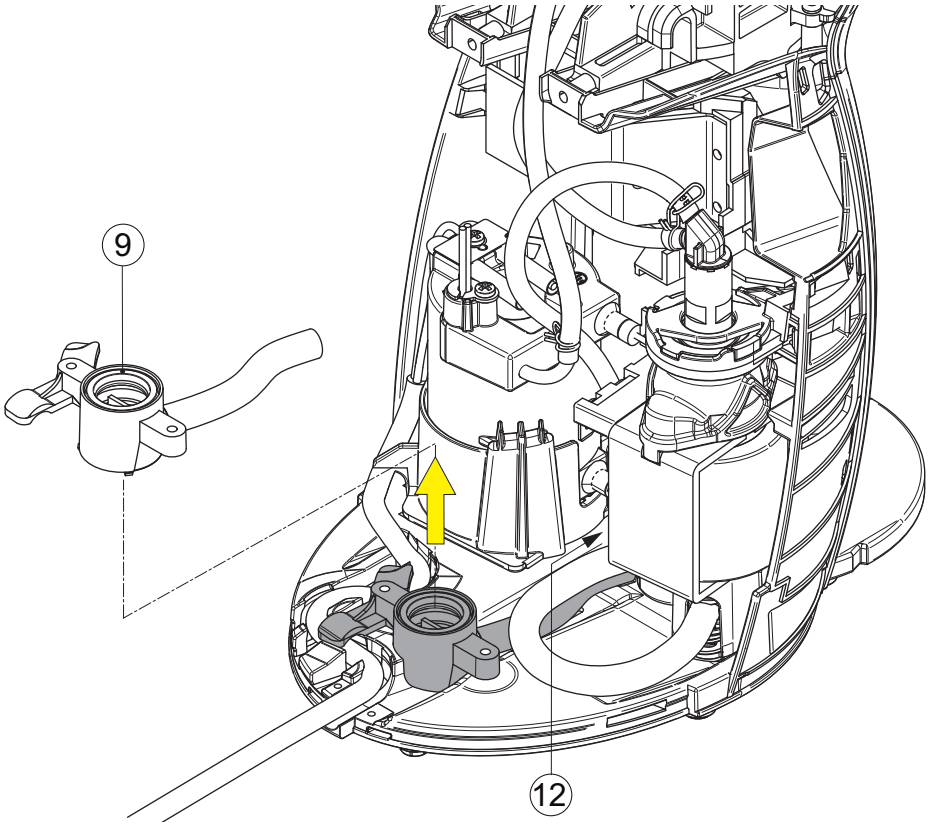


Latch, pin and recess positions are circled red.

Open the 3 delicate latches at the front side by pressing the side cover forward and outwards.

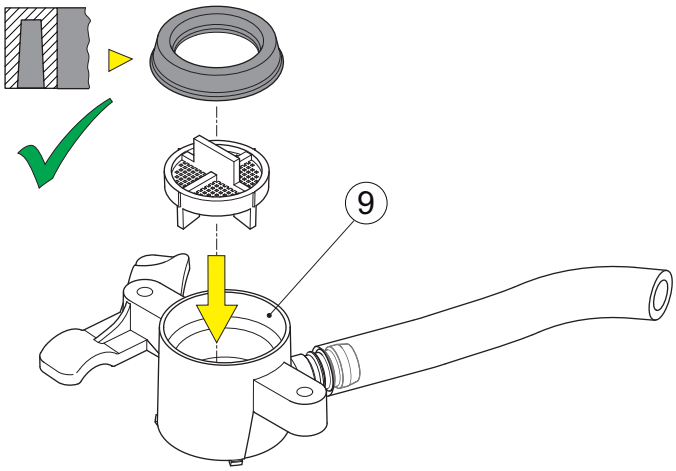
6. Open 2 snap connections at the bottom with the help of a screwdriver (see detail). Lift up left side panel (part of 26) at the same time.
7. Unlatch left side panel carefully and completely, beginning at the bottom.

Replacing water tank connector



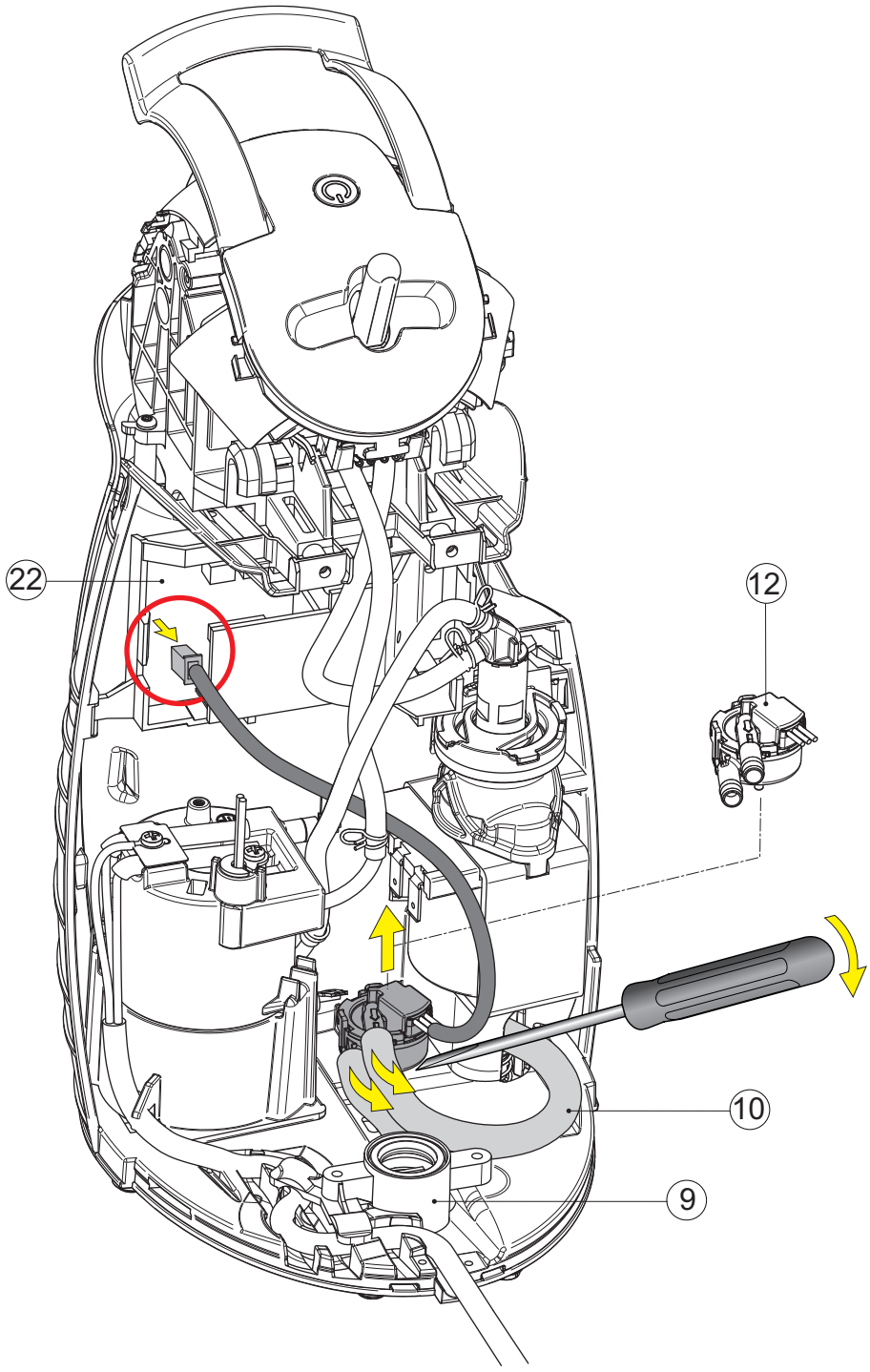
1. Perform general disassembly.
2. Remove water tank connector (9).
3. Pull off silicone hose from flowmeter (12).

Assembly tip



- Check that filter element and gasket are inserted correctly. Otherwise the water tank can leak or the water tank valve does not open.
- Replace silicone hose together with water tank connector (9).

Replacing flowmeter

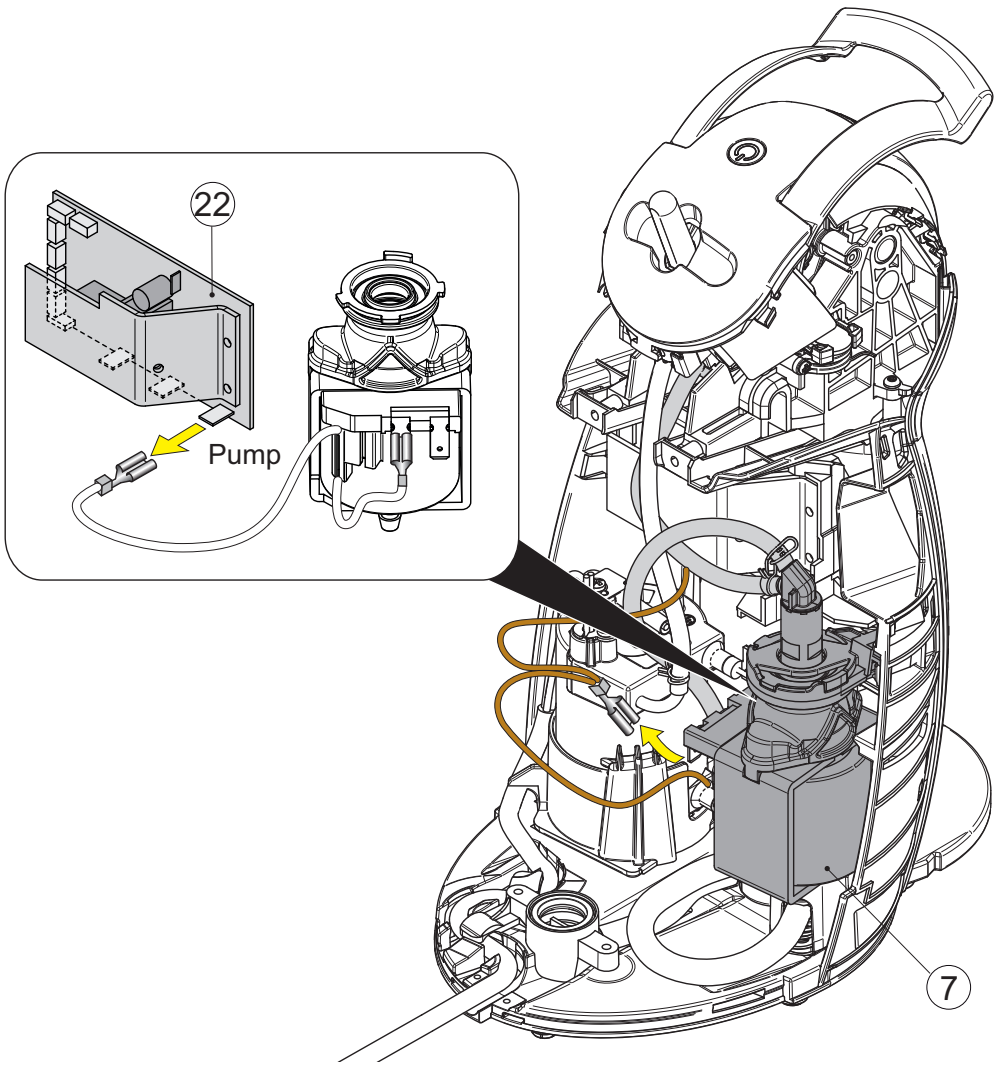


1. Perform general disassembly.
2. Unplug flowmeter connector from electronic mainboard (22).
3. Lever flowmeter (12) out of housing bottom with a screw driver.
4. Pull off both silicone hoses: (10, silicon elbow) and (9, part of water tank connector).

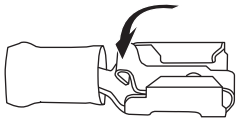
Use a screwdriver with flat blade to lever connector out of socket.

Replacing pump

Depending on supplier, the body of the pump can have different colours.



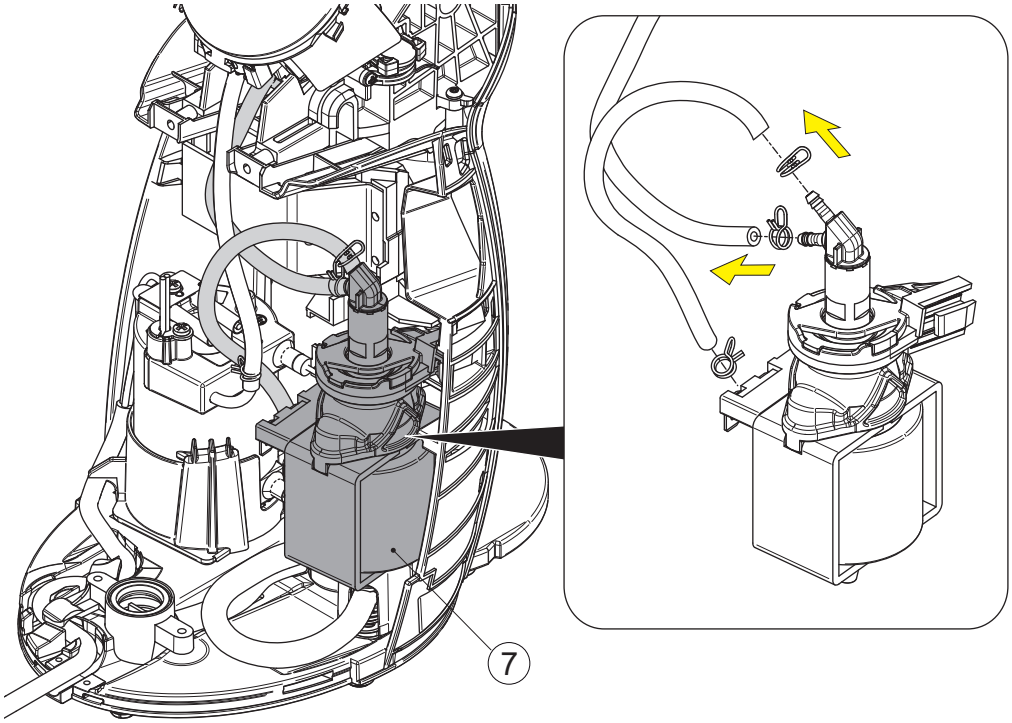
1. Perform general disassembly.



Wiring to pump: The flat receptacles have a special connector latching.
Press down lever at first, then pull receptacle.

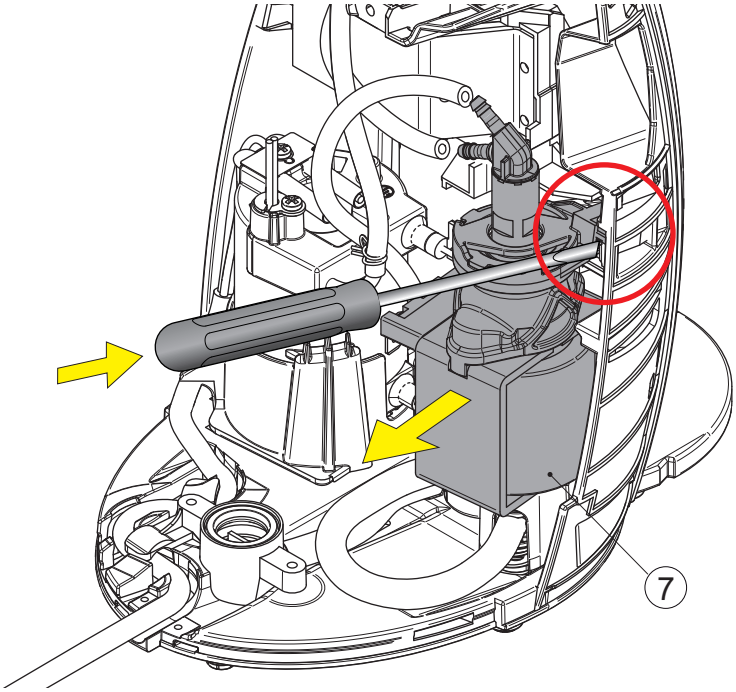
2. Unplug flat receptacle from pump (7).
3. Unplug flat receptacle from electronic mainboard (22 see detail).

The heatsink restricts the access to this flat receptacle. Use a small screwdriver with flat blade to release the lever and unplug the flat receptacle.



i The pressure hose to the thermoblock and the clips have to be discarded together with the defect pump.

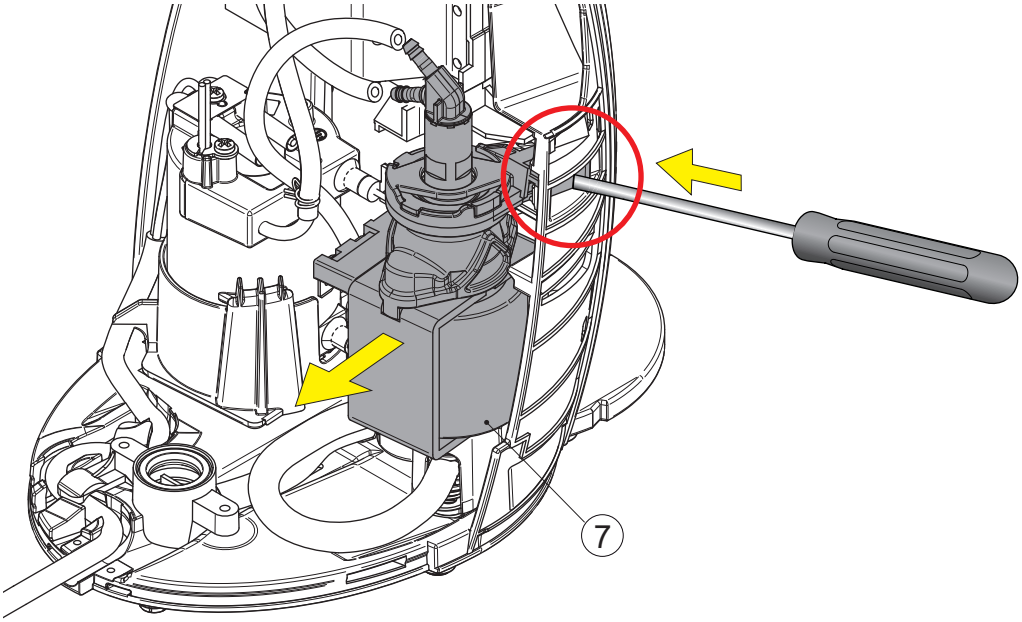
4. Remove both pressure hoses with clips from pump (7).



i The pump support is difficult to remove - please be patient. Try alternative disassembly procedure if you encounter difficulties.

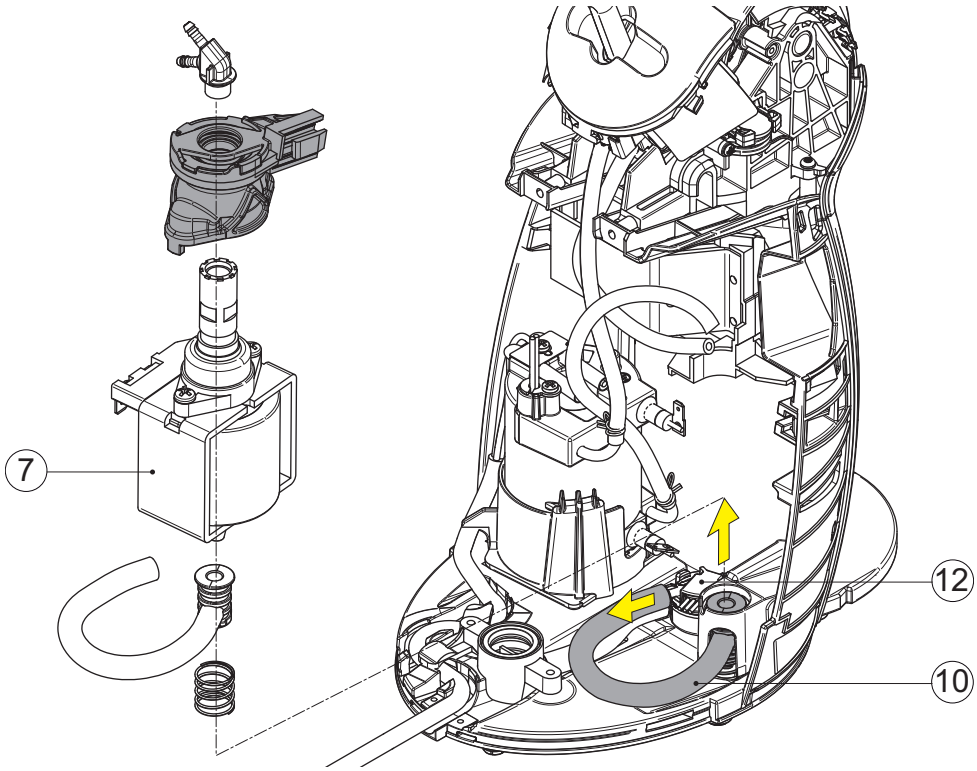
First disassembly procedure:

5. Press blade of a small screwdriver into opening to lift catch. At the same time pull pump support (part of 7) out of main housing by hand.



Alternative disassembly procedure:

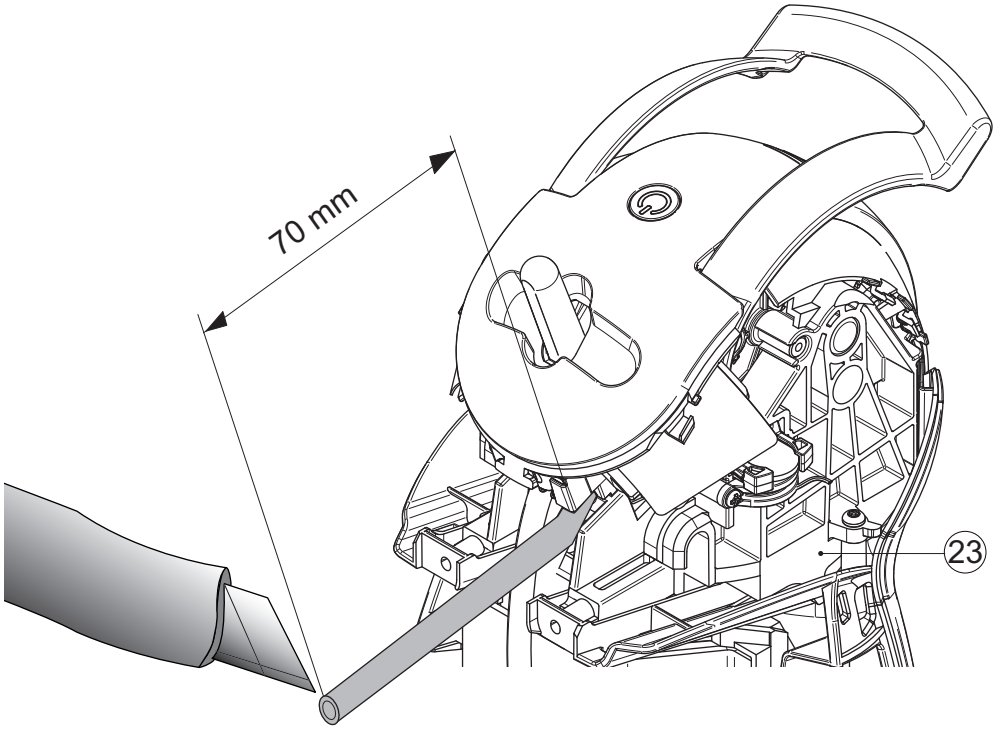
6. Press thin blade of a small screwdriver between catch and pump support.
7. Swivel screwdriver to lift the catch and pull pump support (part of 7) out of main housing by hand.



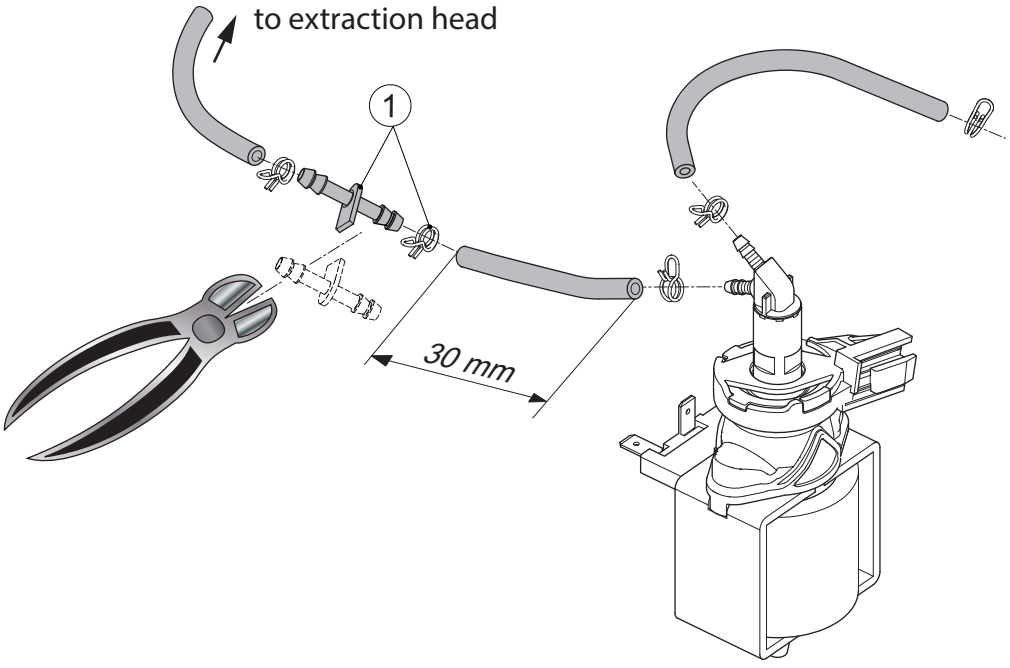
Continue disassembly:

8. Pull off silicone elbow (10) from flowmeter (12).
9. Pull pump (7) out lower support and remove silicone elbow (10).
10. Unscrew Y-connector from top of pump.
11. Detach rubber sleeve from pump housing and pull off upper pump support.

Assembly tips



- Cut pressure hose from extraction head (23) to pump to 70 mm length according to illustration.

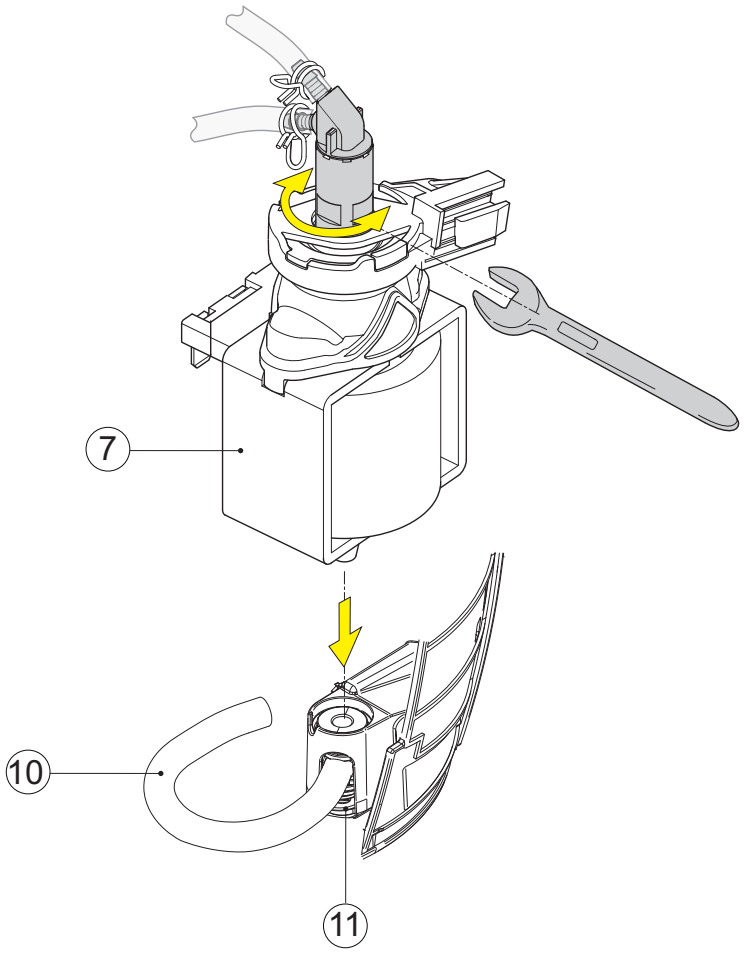


- Prepare a new 30 mm long tube.
- Connect tube to pressure hose from extraction head with an I-connector (1, cut H-connector in 2 halves).
- Do not forget to replace old pressure hose between thermoblock and pump.

i Make sure that the pieced together pressure hose does not touch the side panels after installation to avoid noise emission.

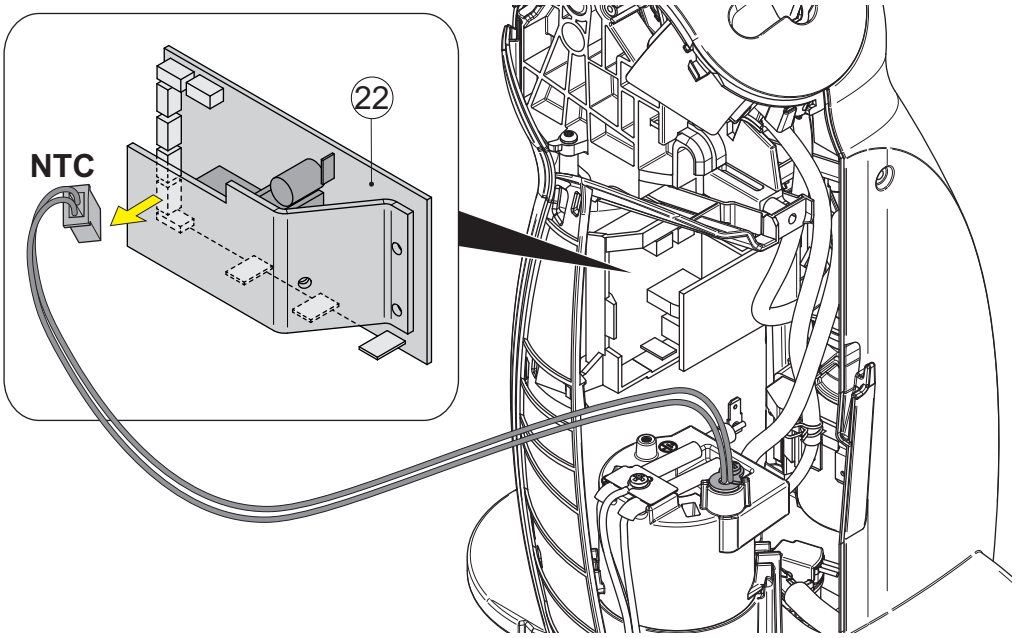
Always use new clips for pressure hose assembly.

The white plastic lid on the pump is rotatable and has a square seat for the fork wrench.



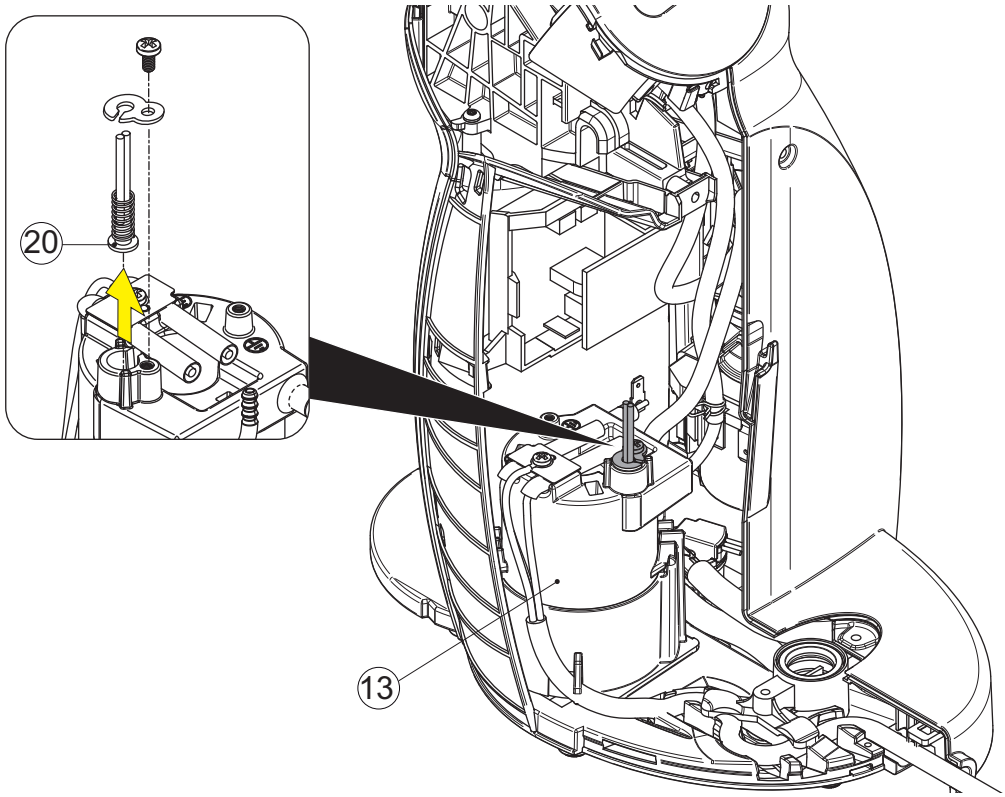
- Check that spring (11) is placed under silicone elbow(10).
- Press pump (7) onto silicone elbow tightly.
- After assembly of the new pump, check the mounting position of its Y-connector at the top. If necessary, adjust Y-connector with a fork wrench no. 12.
- Check pump wiring according to the wiring diagram (see page 56).

Replacing NTC temperature sensor



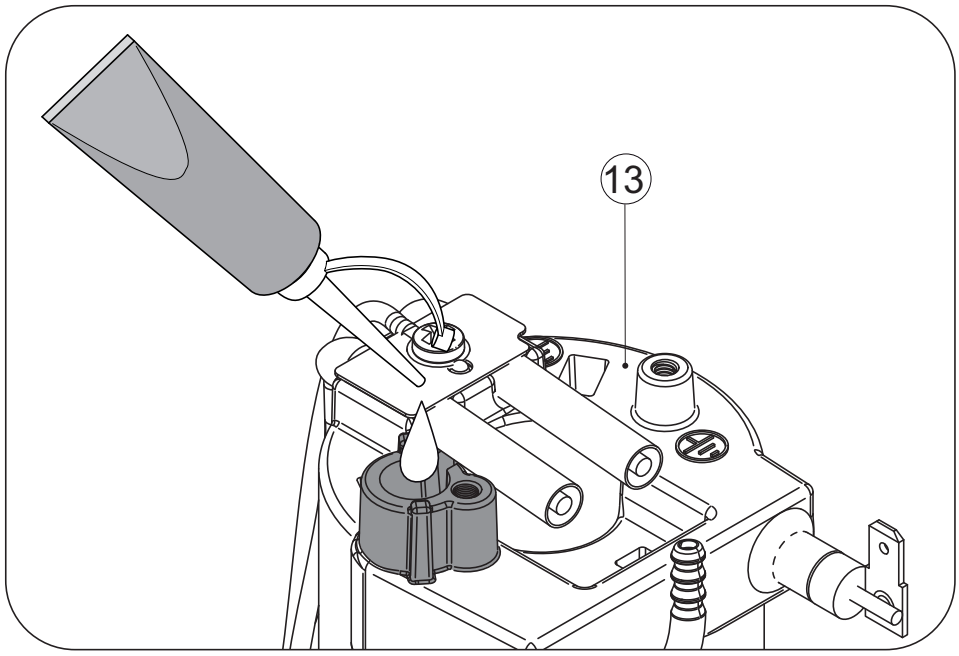
1. Perform general disassembly.
2. Unplug NTC connector from electronic mainboard (22).

It is sufficient to remove the right side panel only.

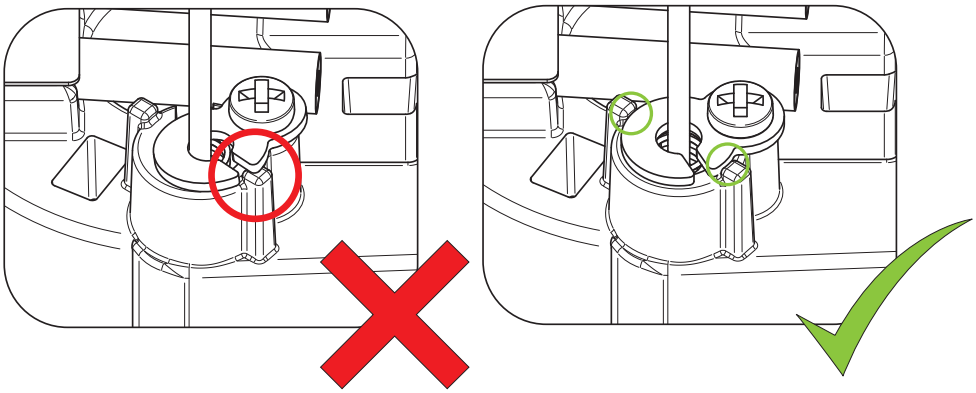


3. Loosen and remove screw (Phillips screw, M3 x 5) on thermoblock (13).
4. Pull defect NTC sensor (20) with spring (part of 20) and holding plate (part of 13) out of socket.
5. Remove wires from holding plate.

Assembly tips



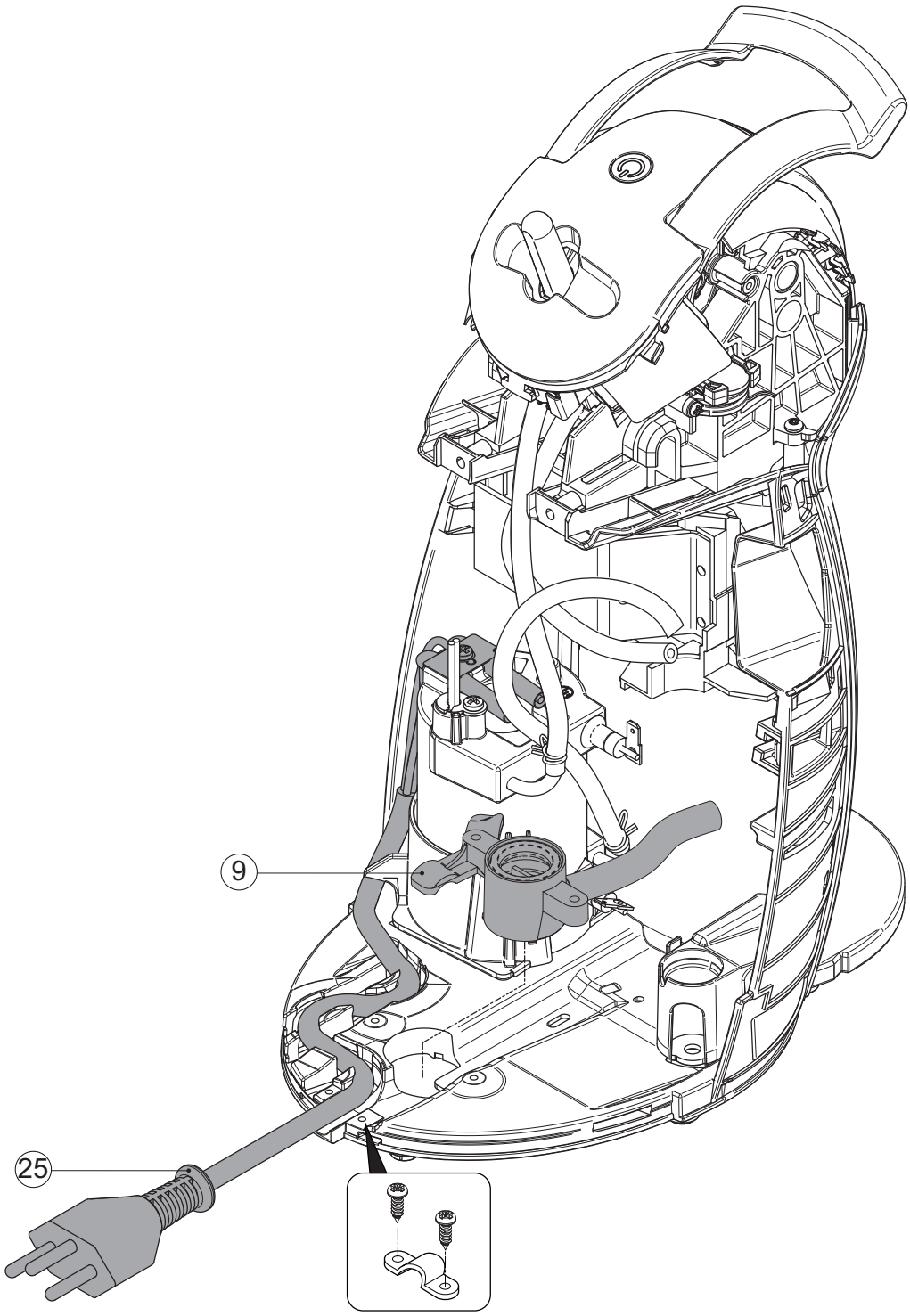
- Apply a sufficient amount of standard heat conducting paste into NTC-socket of thermoblock (13).



- Make sure that holding plate (see details) lays flat on the socket and does not rest on a peg.

i The NTC wire connections are fragile - handle with care.

Replacing power cord with thermo fuses

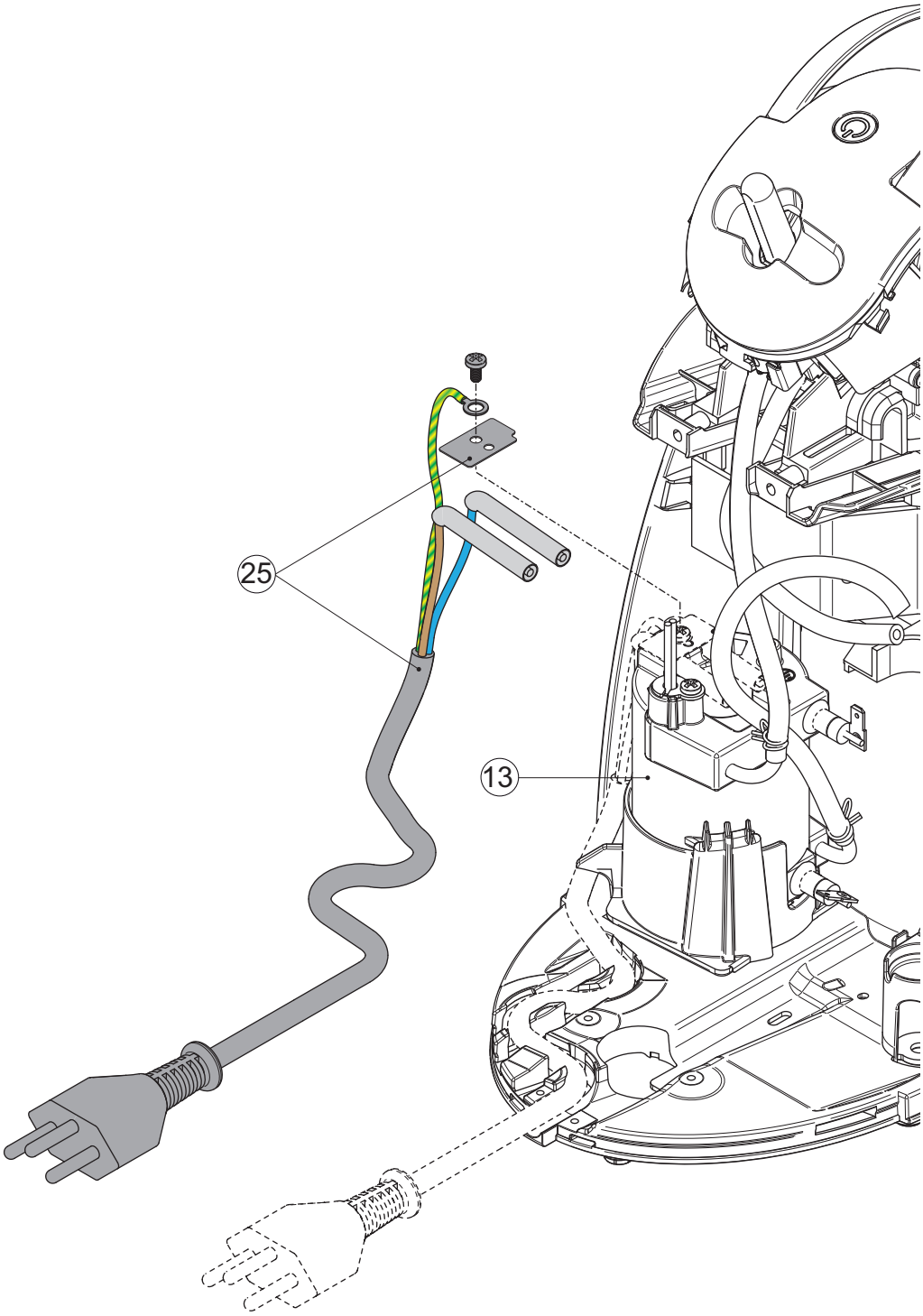


1. Perform general disassembly.
2. Loosen 2 screws and remove special strain relief (see detail) if present.
3. Remove water tank connector (9).
4. Pull power cord (25) out of cable duct in housing bottom.

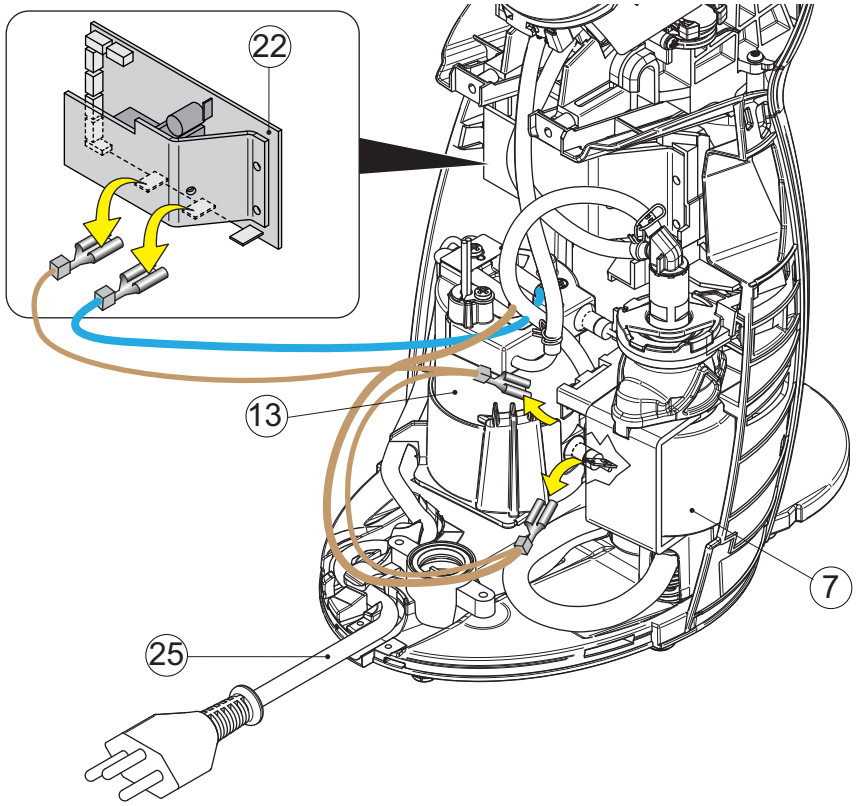
i Defective thermo fuses can only be replaced together with the power cord.

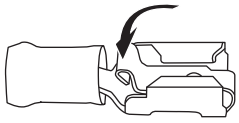
i Power cord wires have a country-specific colour code.

i This strain relief (see detail) is only used to clamp flat power cords additionally.



5. Loosen screw (Phillips screw, M3 x 5) and remove cable lug (ground connection), fuse holder clip (part of 25) and thermo fuses (part of 25) from thermoblock (13).



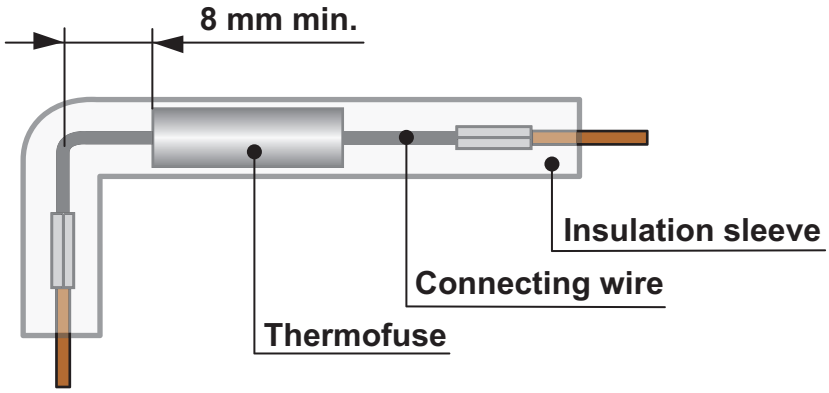


The flat receptacles of the power cord have a special connector latching.
Press down lever at first, then pull receptacle.

The heatsink on the electronic mainboard restricts the access to the flat receptacles. Use a small screwdriver with flat blade to release the lever and unplug the flat receptacles.

6. Unplug 2 flat receptacles from electronic mainboard (22).
7. Unplug flat receptacle from thermoblock (13) and pump (7).
8. Replace defect power cord (25).

Assembly tips



- Keep a minimum distance of 8 mm to the case of the thermofuse when bending its connecting wires. Use only a tool with no sharp edges (e.g. round nose pliers).

Danger of short circuit!
Do not damage the insulation sleeve on the thermofuse during assembly.

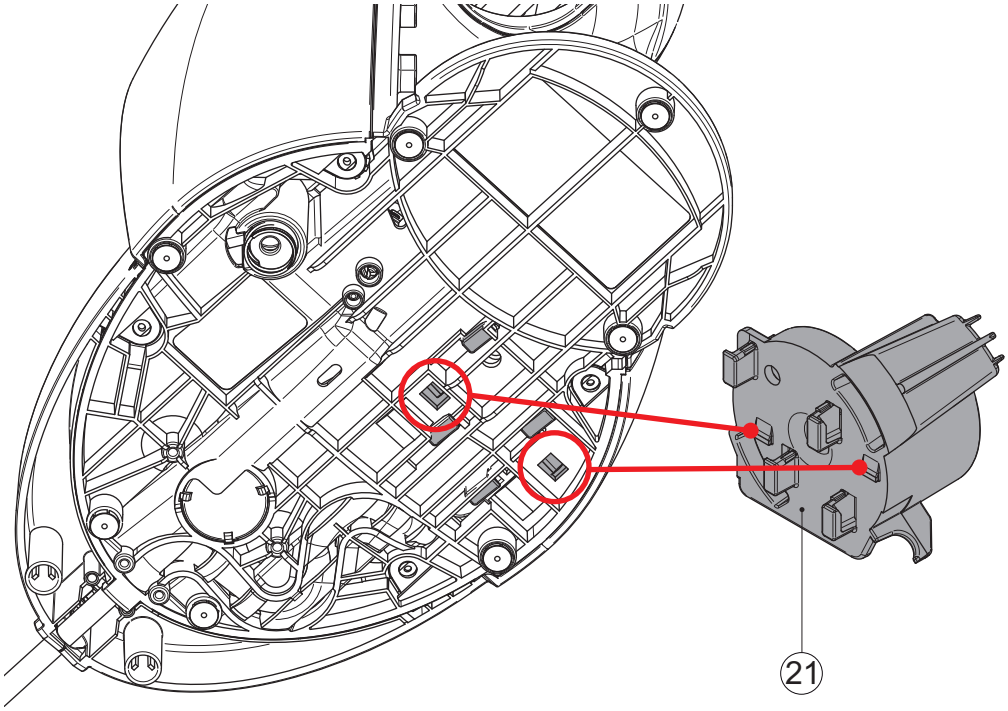
- Check power cord wiring according to the wiring diagram (see page 56).
- Check wire and cable routing:
  - Cable duct in housing bottom
  - Additional strain relief for a flat power cord

Replacing thermoblock

1. Perform general disassembly.
2. Unplug NTC connector from electronic mainboard (see page 41).
3. Loosen screw and remove cable lug (ground connection), fuse holder clip and thermo fuses from thermoblock (see page 43 and following).
4. Unplug both flat receptacles from thermoblock (13).
5. Remove pressure hoses from thermoblock.

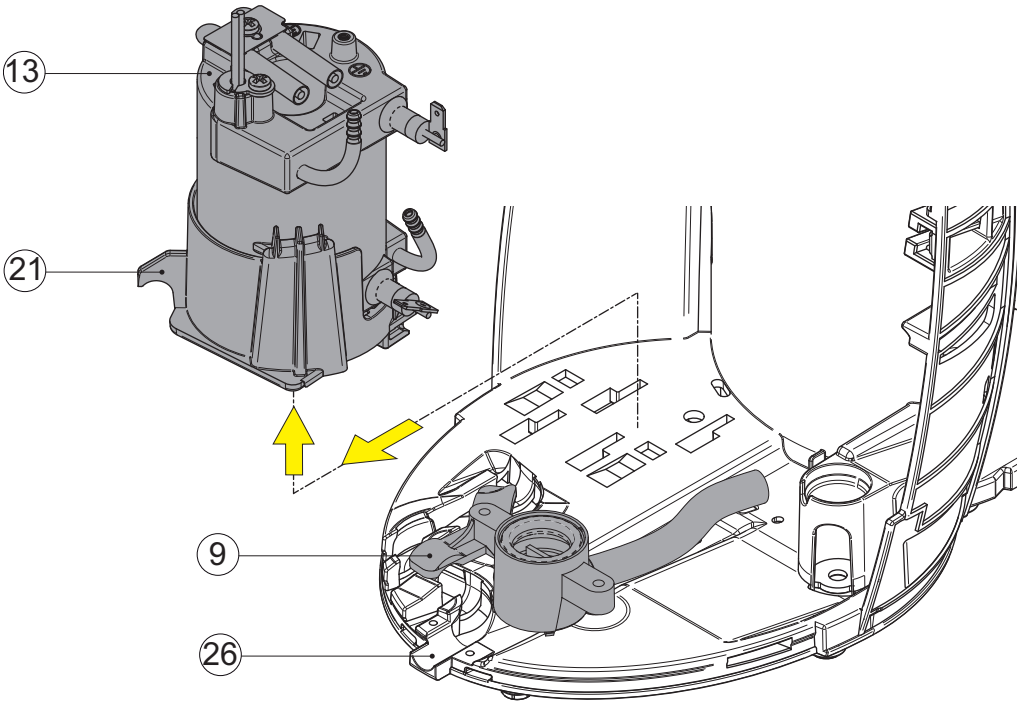
i The pressure hose to the pump and all clips have to be discarded.

i The thermoblock support cannot be removed from the housing bottom without being destroyed.



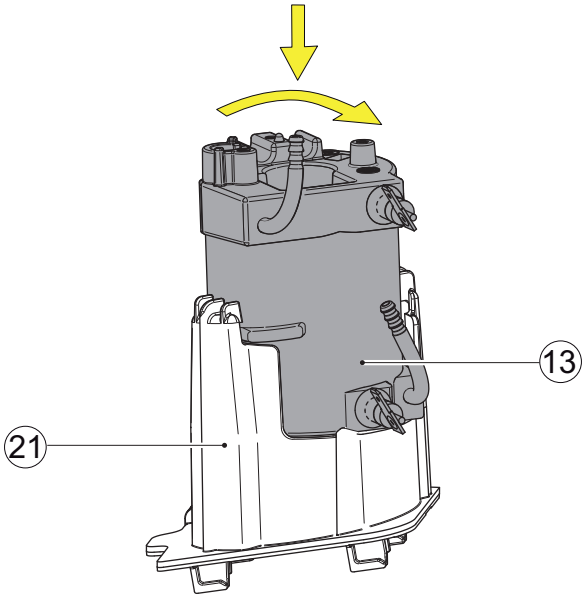
Or prepare an auxiliary device to press in both latches firmly.

6. Remove (bevel or cut off) both latches of thermoblock holder (21) at bottom of main housing with an appropriate tool (e.g. multifunction rotary tool or cutting pliers).

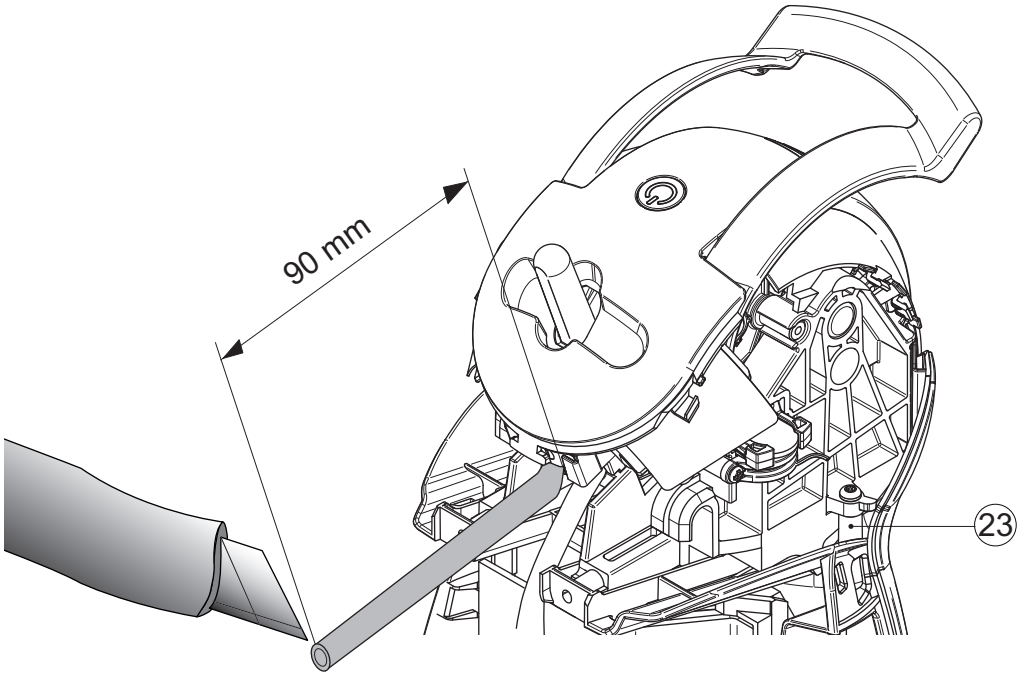


7. Pull thermoblock (13) with thermoblock holder (21) towards water tank connector (9). Then lift thermoblock holder out of main housing (part of 26).

Assembly tips

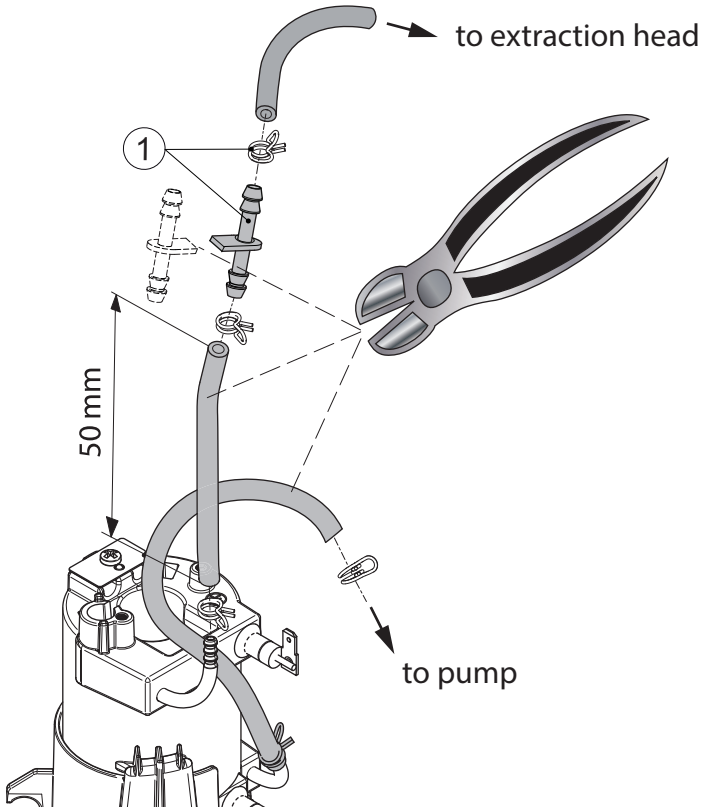


- Assemble thermoblock (13) in thermoblock holder (21): Press down thermoblock and turn it clockwise until bayonet lock engages.
- Mount new NTC temperature sensor on thermoblock (see page 41 and following).



- Cut pressure hose from extraction head to thermoblock to 90 mm length according to illustration.

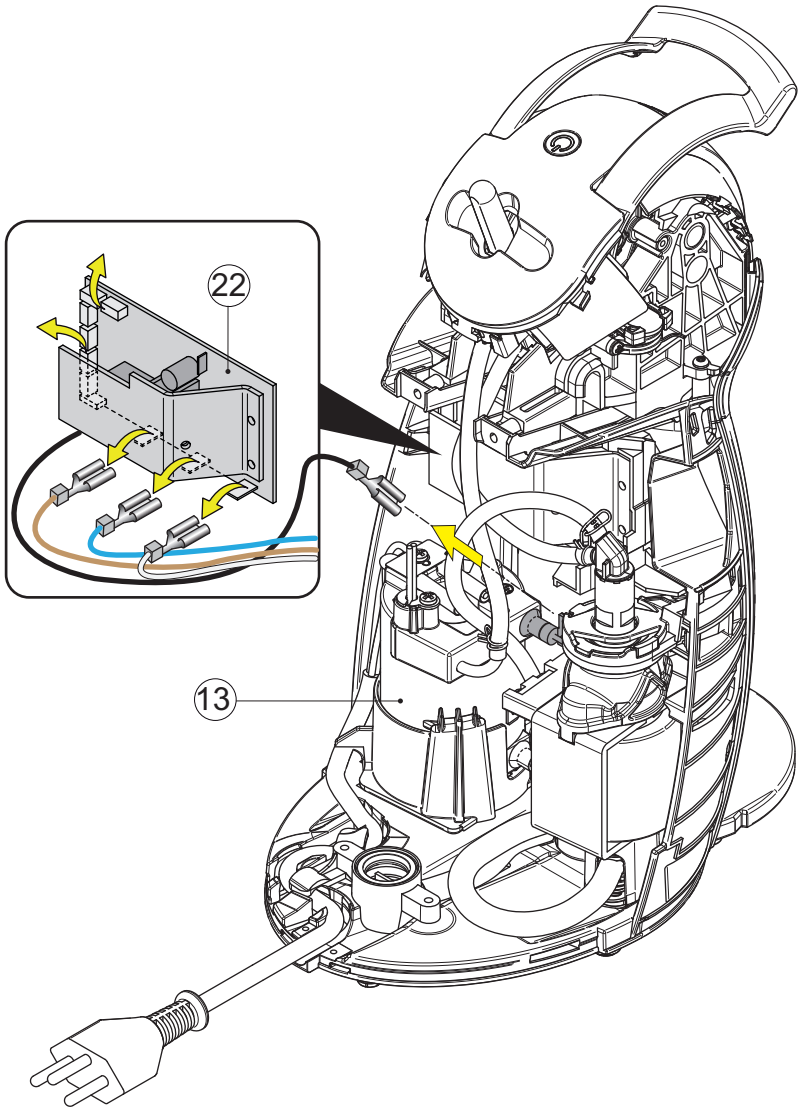
i Make sure that the pieced together pressure hose does not touch the side panels after installation to avoid noise emission.



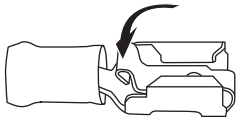
- Prepare a new 50 mm long replacement tube.
- Connect replacement tube to pressure hose from extraction head with an I-connector (part of 1, cut H-connector in 2 halves).
- Do not forget to replace old pressure hose between thermoblock and pump.

⚠ Always use new clips for pressure hose assembly.

Replacing electronic mainboard



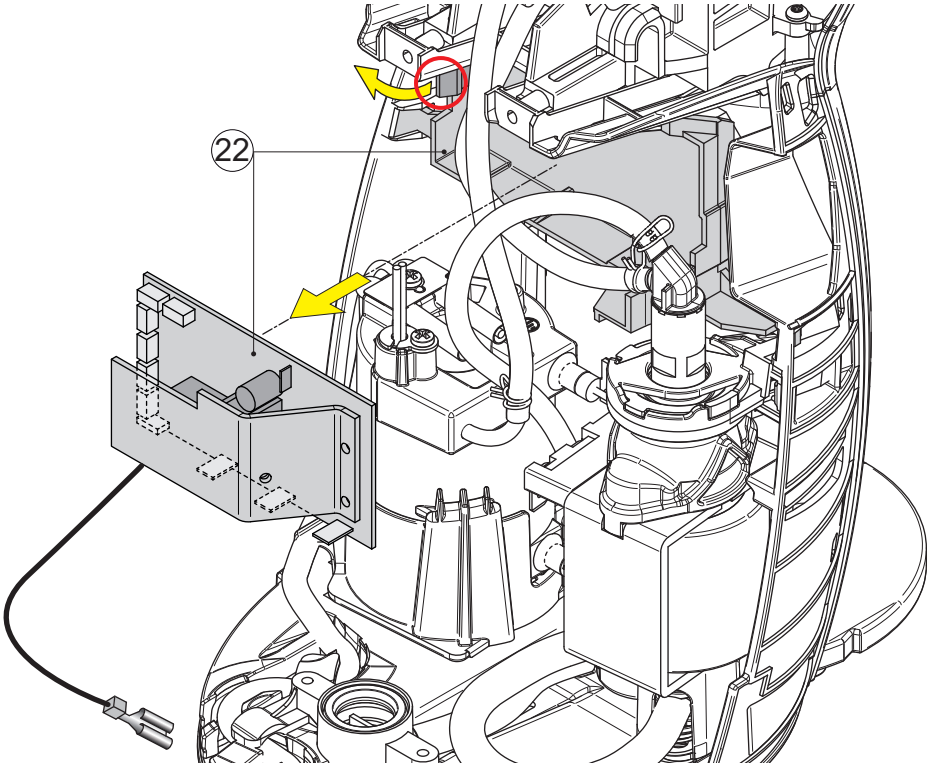
1. Perform general disassembly.
2. Unplug 7 connectors from electronic mainboard (22).



The flat receptacles have a special connector latching. Press down lever at first, then pull receptacle.

3. Unplug 3 flat receptacles from electronic mainboard (line, neutral and pump).
4. Unplug flat receptacle from thermoblock (13).

The heatsink on the electronic mainboard restricts the access to the flat receptacles. Use a small screwdriver with flat blade to release the lever and unplug the flat receptacles.

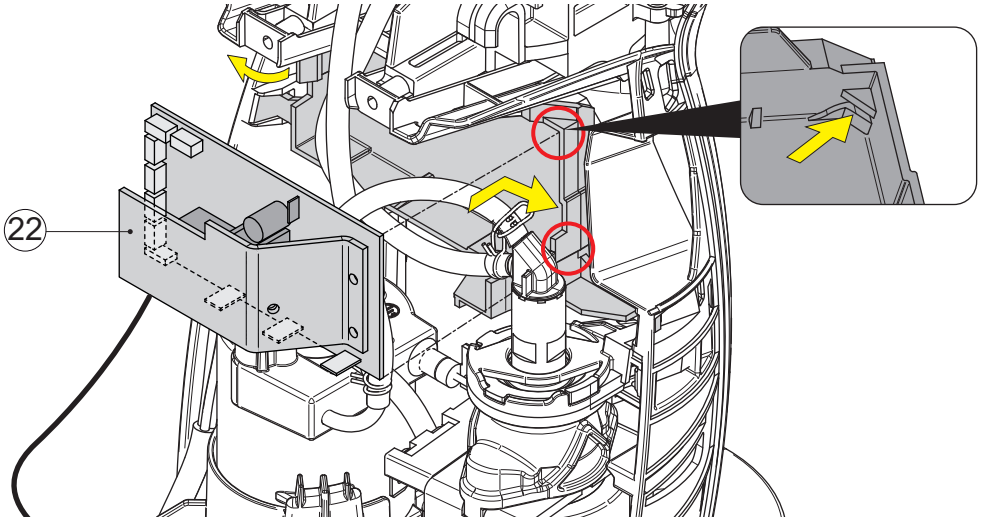


5. Remove electronic main board (22) from its support:
   Press latch on the left side of the support outwards with thumb (see red circle).
   Lift electronic main board out of support at the left side first. Then pull electronic main board out of support laterally.

i It is not necessary to remove the print together with the support.

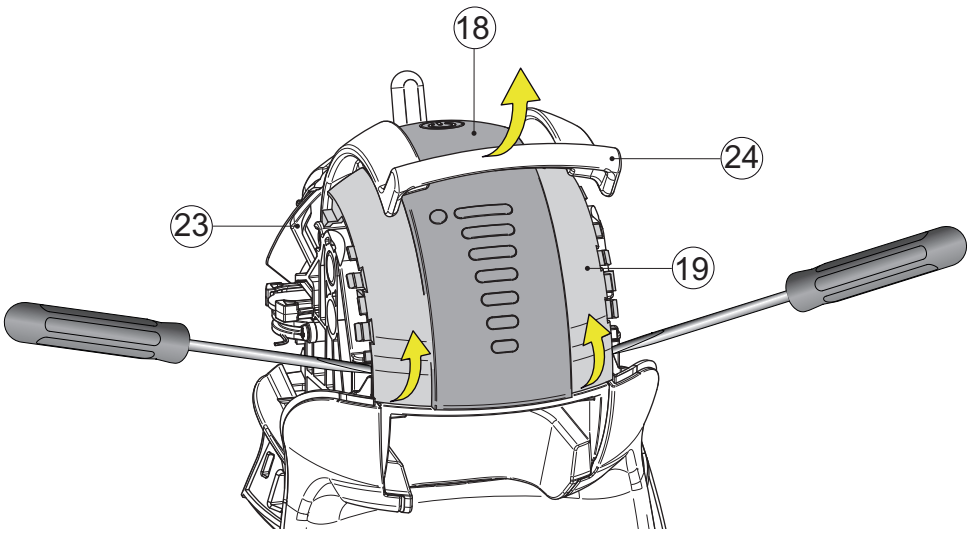
Assembly tips

i The electronic main board is sensible to electrostatic discharge - use safety measures.



- For handling a new electronic main board (22), the service technician should be earthed using an earthing strap.
- Insert new electronic main board with its corners into the guiding slots at the right side of the support first (see detail). Press latch on the left of print support outwards and at the same time press electronic main board down and lock it in place.
- For correct wiring refer to electrical wiring diagram (see page 56).

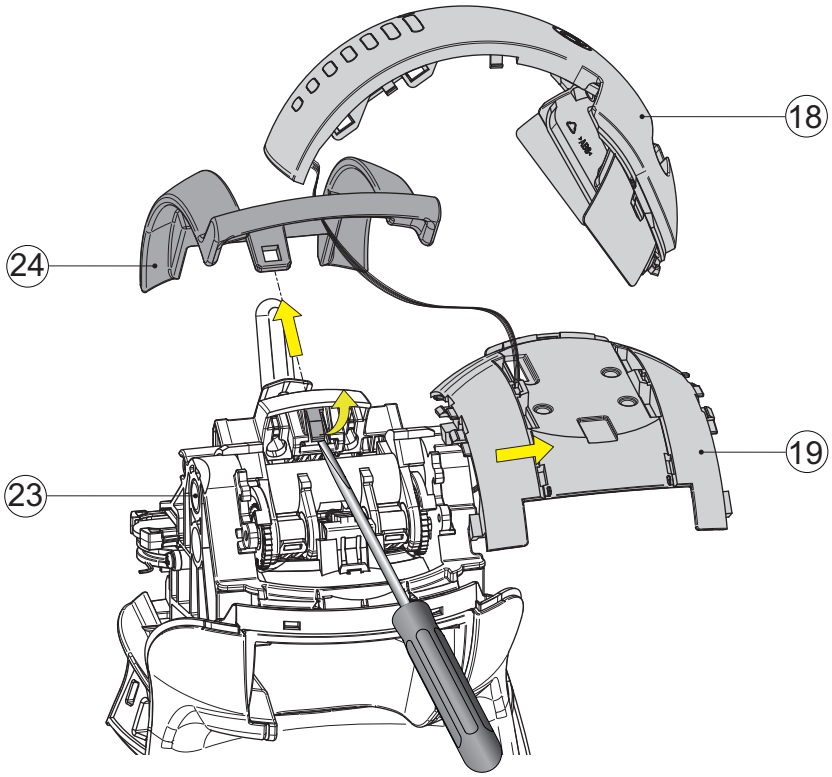
Replacing locking handle and control unit



i Locking handle and control unit with support can be re-used after replacement of the extraction head.

Remove closing handle

1. Perform general disassembly (see page 30).
2. Open locking handle (24).
3. Unlatch support (19) from extraction head (23) carefully with a screwdriver.



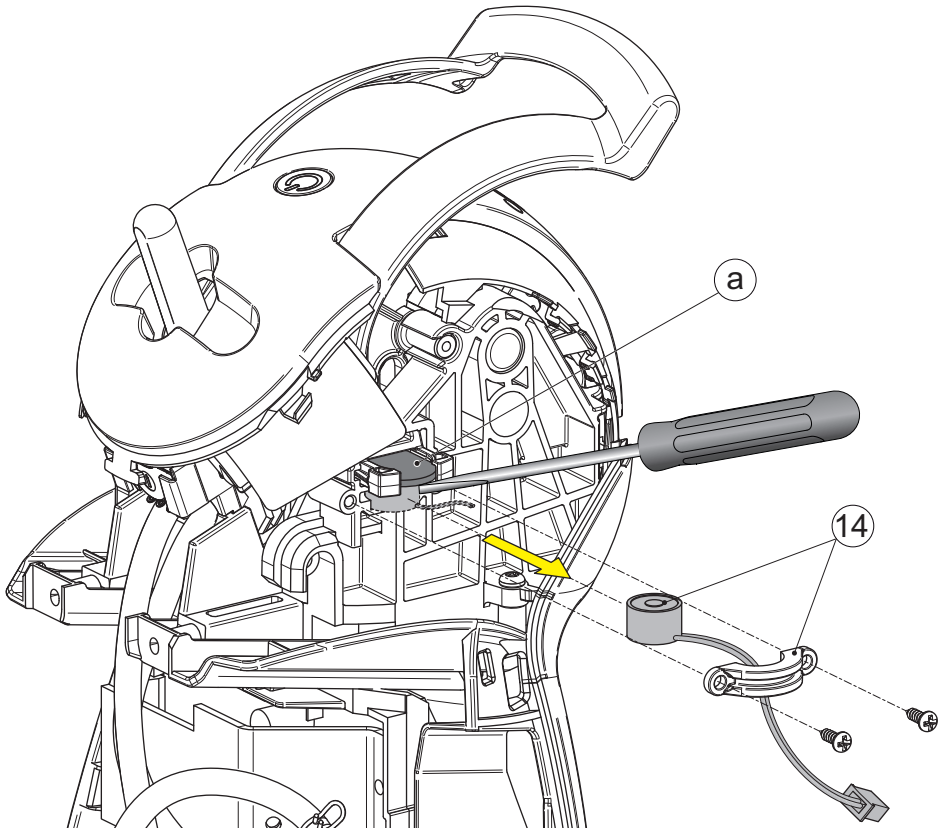
4. Unlatch control unit (18) from support (19). Push support to the side.
5. Insert screwdriver laterally under control unit. Lift end of latch with screwdriver and pull off locking handle carefully.
6. Pull control unit out of locking handle (24).

Do not overstretch and damage the latch.

Remove control unit

7. Cut cable tie near electronic mainboard (22).
8. Unplug HMI-connector from electronic mainboard.

Replacing electromagnet

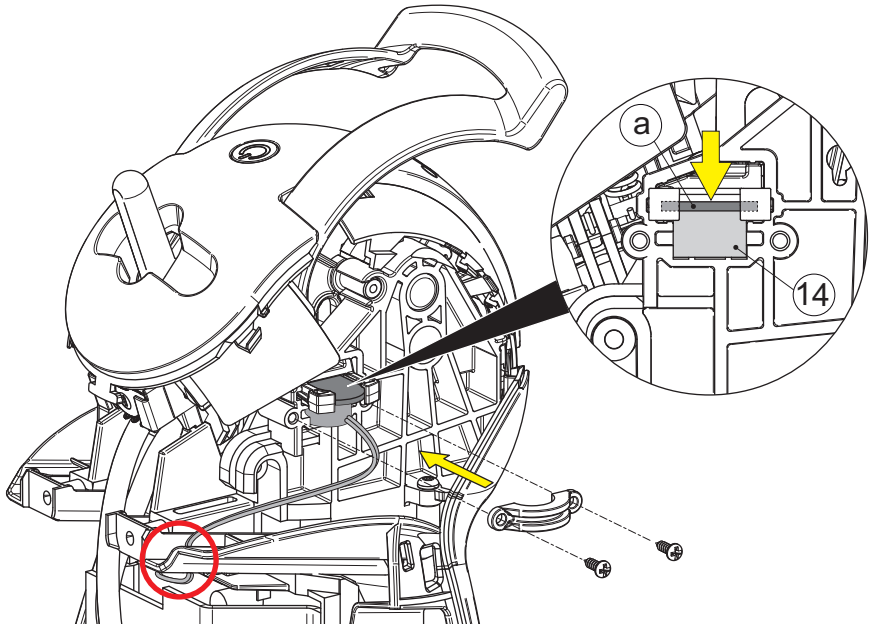


1. Perform general disassembly (see page 30).

Do not touch the surface of the replacement electromagnet (14) and the bottom of the metal plate (a) without gloves! Otherwise the alignment between these two components can be affected.

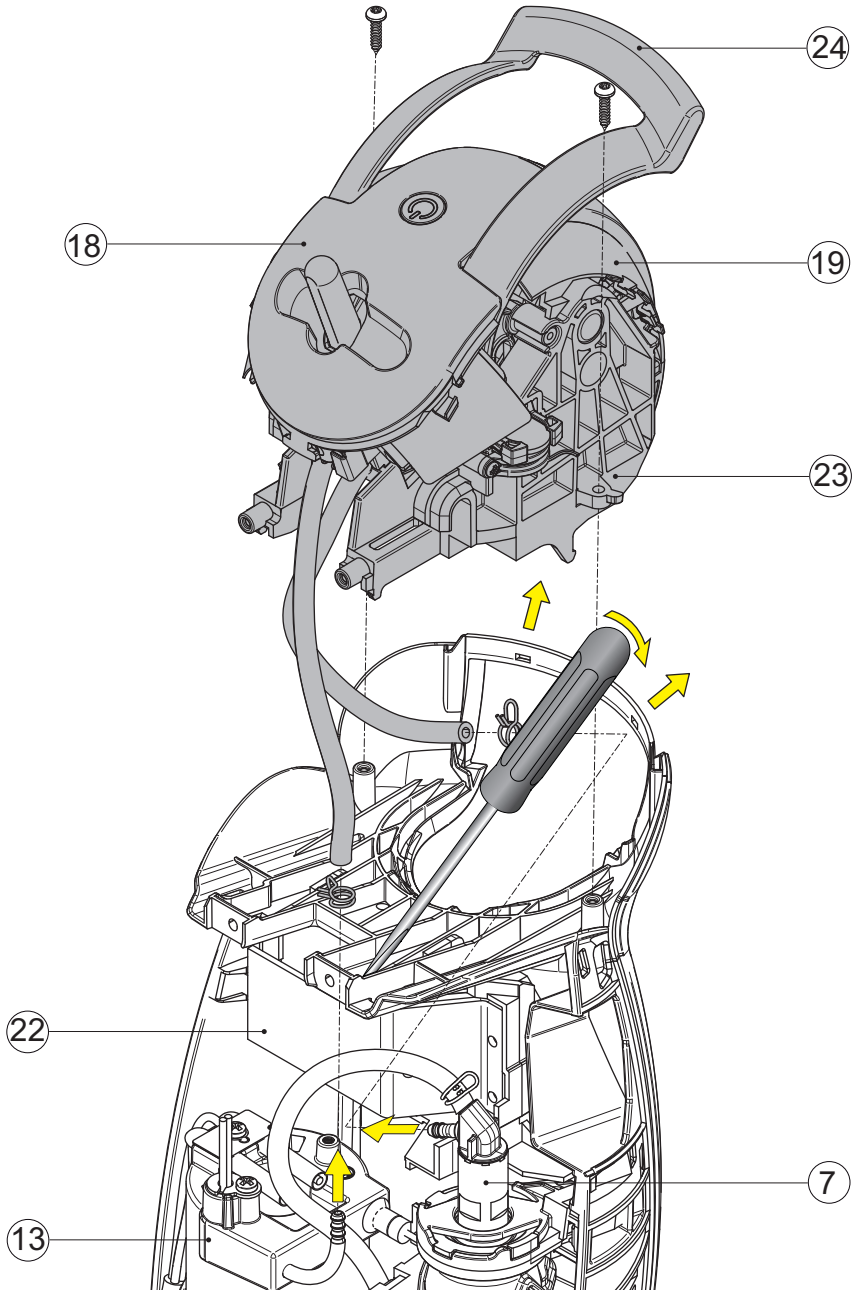
2. Put on gloves.
3. Loosen 2 screws (Phillips screw, M2.5 x 8) and remove clamp (part of 14).
4. Pull electromagnet (14) out of extraction head. Use a screwdriver if necessary.

Assembly tip



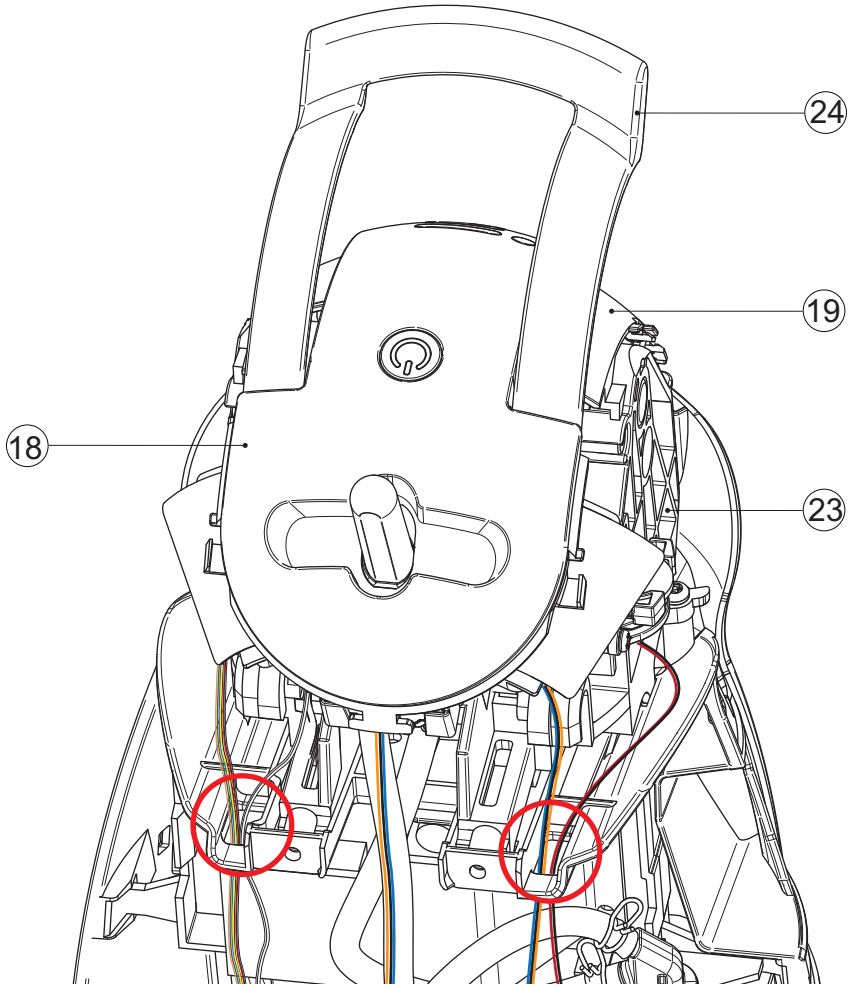
- Wear gloves for assembly of new electromagnet (14).
- Pull connector of electromagnet through opening in extraction head (see red circle).
- Insert electromagnet into support.
- Press down and hold metal plate (a) on electromagnet (14) so that they are well aligned.
- Then assemble clamp with screws (all parts of 14).

Replacing extraction head



1. Perform general disassembly (see page 30).
2. Cut cable tie.
3. Unplug all 5 connectors that are wired with the extraction head (23) from the electronic mainboard (22).
4. Lead these connectors through openings in main housing.
5. Cut through or remove extraction head's pressure hoses from thermoblock (13) and pump (7).
6. Loosen 2 screws (safety pin Torx head screws, M3 x 12).
7. Use a screw driver to swivel extraction head (23) out of main housing at the rear side first.
8. If not already done, remove locking handle (24) and control unit (18) with support (19) from extraction head - see page 51.

Assembly tips

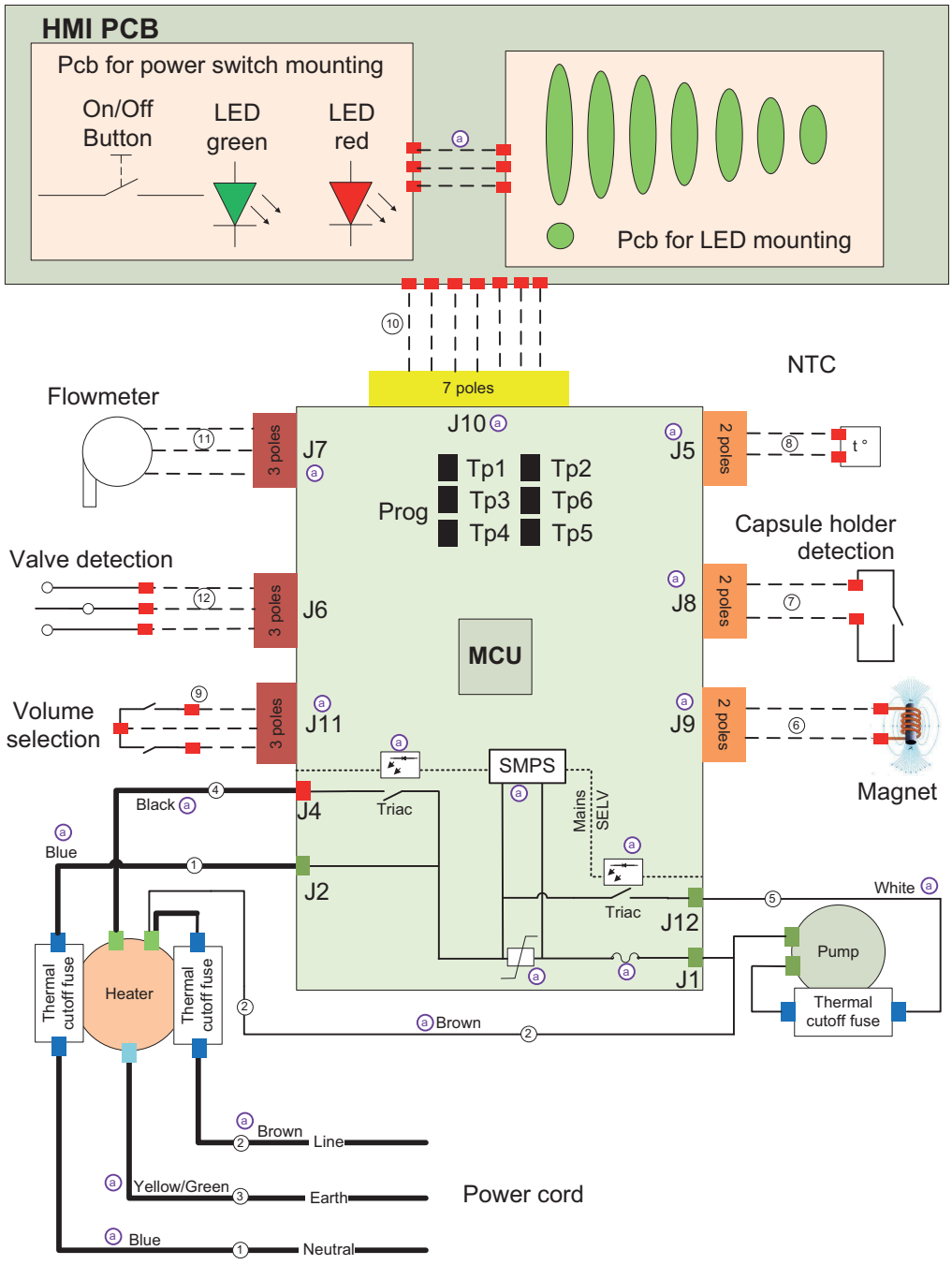


- After fastening the new extraction head (23) on the main housing, attach the locking lever (24) with control unit (18) and support (19). Check if locking lever is locked and latch is not broken.
- Lead cables of extraction head through special openings in main housing (see red circles) before connecting them to the electronic mainboard.
- Fix cables above electronic mainboard with a cable tie.

Do not overturn screws when assembling the new extraction head.

WIRING DIAGRAM

Wiring diagram for all mains voltages (100 V, 120 V, 127 V, 230 V)



Legend:

- Solder connection
- Crimp connection
- Faston contact (6.3mm)
- Faston contact (4.8mm)
- Plug Molex, pitch 1.25mm
- Programmation connector
- Screwed
- Plug JST PH, pitch 2mm
- Plug JST XH, pitch 2.5mm

- Low current (AWG26 / 0.14mm², 5V or 12V)
- Low current (AWG22-24 / 0.5mm², 100V / 230V)
- High current (AWG16 / 0.75mm², 100V / 230V)

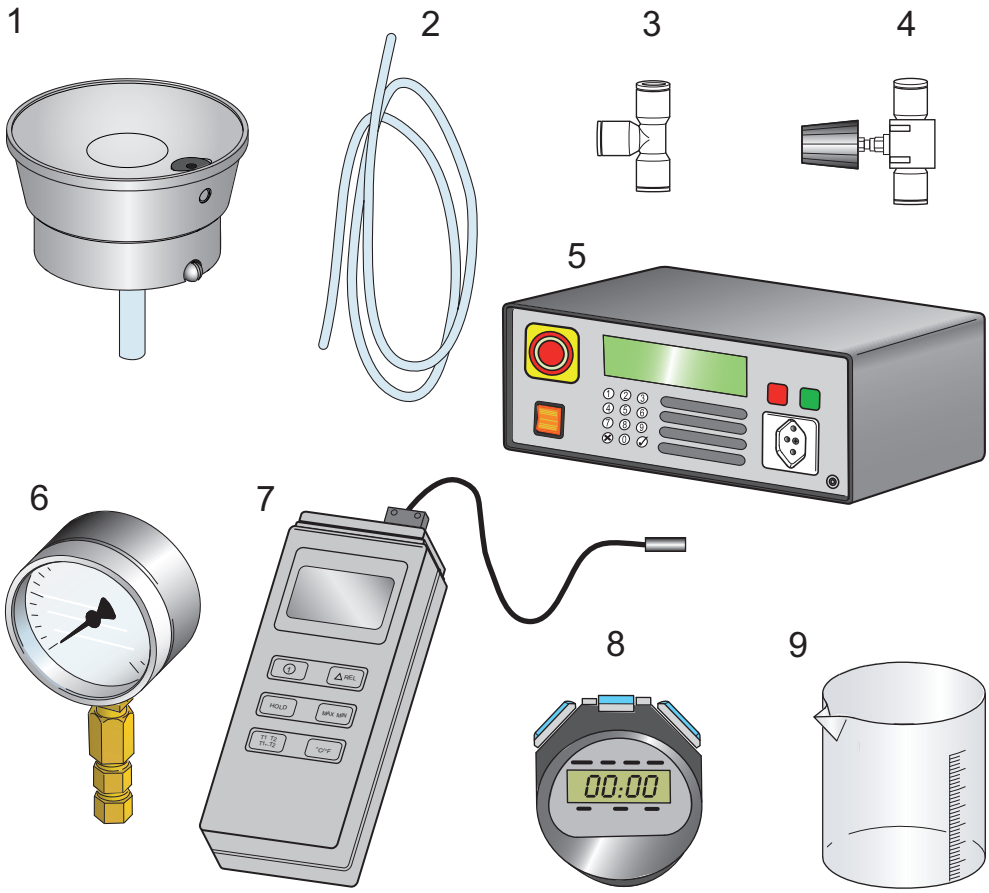
Measures in [mm]
Wire numbers (drawings)

FINAL TESTING

The following tests guarantee the correct function of the machine:

1. Heating up time
2. Flow rate (at 8 bar) / water temperature
3. Maximal pressure / leakage check

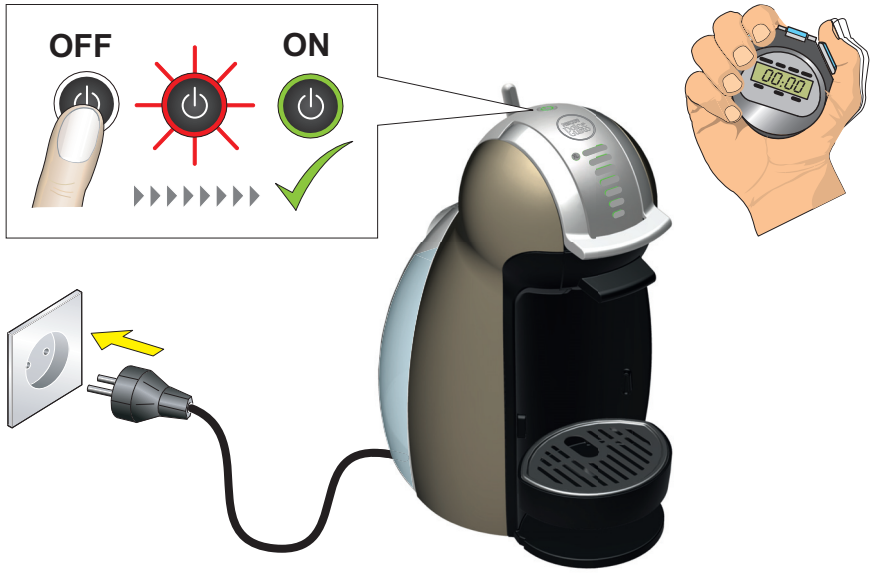
Test equipment



1. Dummy capsule
2. Flexible tube
3. T-connector (standard push-in fitting)
4. Pressure control valve
5. Test equipment for protective earth continuity test and protective insulation test
6. Pressure gauge (oil-filled, 0 to 16 bar min.)
7. Electronic thermometer
8. Stop watch
9. Scale or graduated recipient

i The illustrations of the test equipment are symbolic.

Heating up time

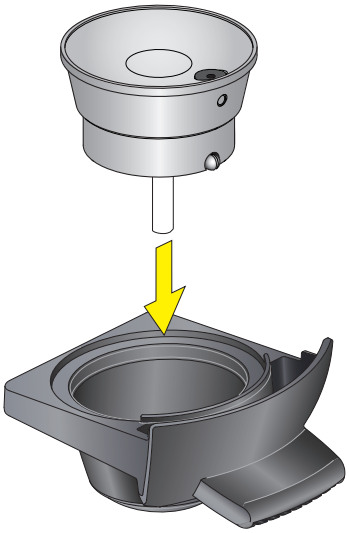


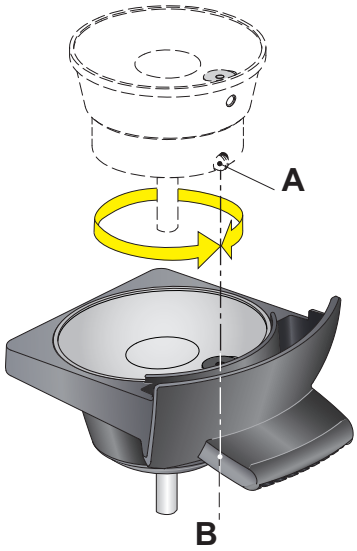
1. Plug into mains and press power button.
2. Measure the heating up time with a stop watch (time until power button stops blinking).

☞ **Test is passed if power button is turning green**
- **from 25 sec to 40 sec at 230 V mains voltage**
- **or within 60 sec at 100 V / 120 V mains voltage and 50 / 60 Hz mains frequency.**

Flow rate (at 8 bar) / water temperature

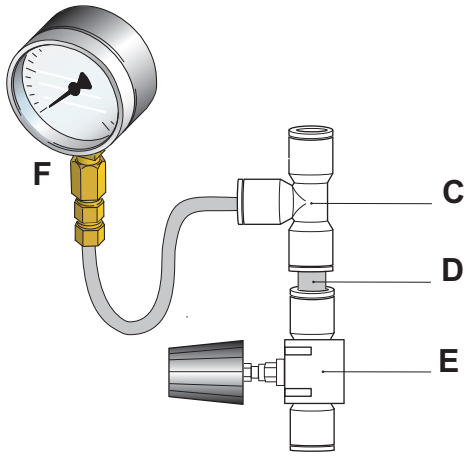
i The water for this function test must be fresh, potable, cold water.





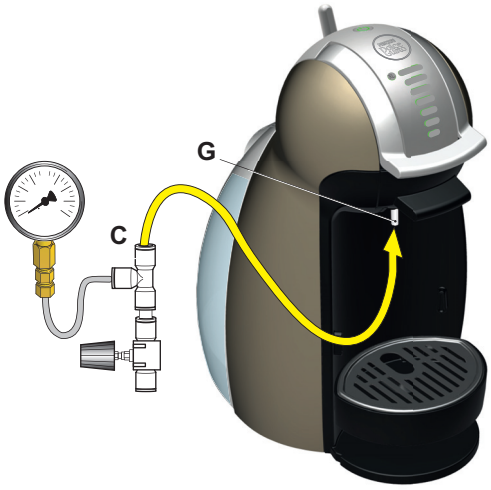
1. Insert dummy capsule into capsule holder.
2. Align dummy capsule to needle: Turn dummy capsule till screw head (A) fits in dent (B) inside of capsule holder.

3. Insert capsule holder in machine and close locking handle.



Test device assembly

4. Connect T-connector (C) and pressure control valve (E) with a flexible tube piece (D, approx. 25 mm long) according to illustration.
5. Connect pressure gauge tube (F) to T-connector (C).



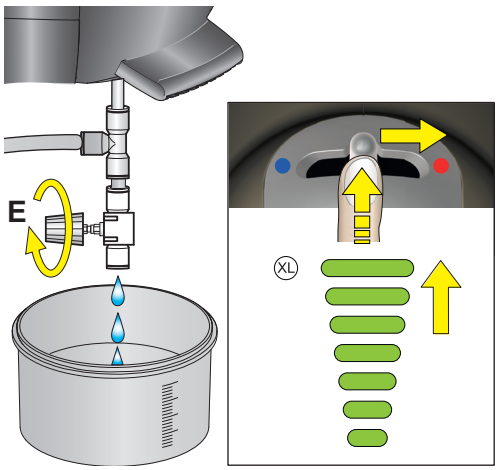
6. Connect T-connector (C) to tube of dummy capsule (G).

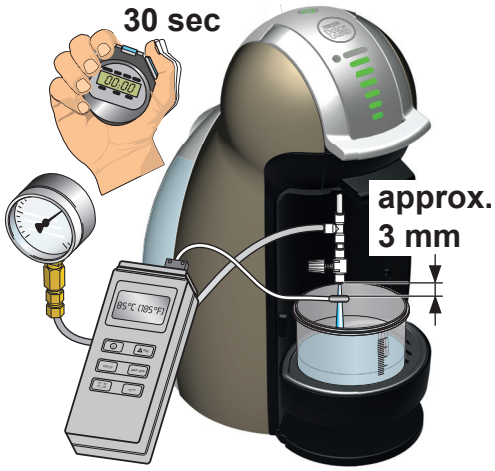
7. Place a graduated recipient under test device.
8. Ensure that a precise electronic thermometer is available. Adjust electronic thermometer if necessary.

End of test device assembly.

i The manometer must be observed continuously and the pressure regulated by using the control valve (E) if necessary.
With increasing temperature the pressure also increases, if necessary readjust the pressure to 8 bar.

i With a flow below 80 ml the pump is defective or there is a leakage in the fluid system.
Large fluctuations in the pressure gauge readings (± 4 bar) during measurement are indicative of a defective pump.



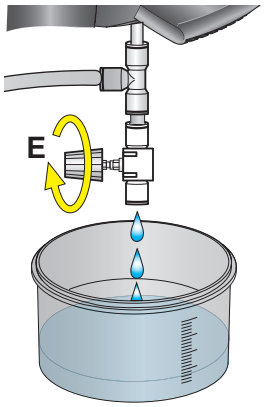


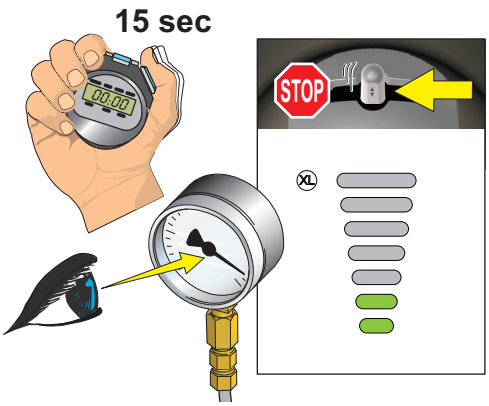
Start pressure test

9. Set bargraph display to maximum with selection lever.
10. Move selection lever to the right.
11. Close pressure control valve (E) to reach 8 bar (+/-0.5 bar).
12. Check flow rate at 8 bar during 30 sec.
13. Hold temperature sensor approx. 3 mm under control valve and measure hot water temperature.
14. Continue with maximal pressure test.

☞ **Test is passed if**
- flow rate is between 80 to 130 ml within 30 sec (160 - 260 ml/min)
- water temperature is between 80 °C to 90 °C (176 °F to 194 °F).

Maximal pressure / leakage check





Continue with existing test setup:

1. Close pressure control valve (E) completely.
The coffee machine remains switched ON.
2. Move selection lever to middle position to stop pump.
3. Watch pressure gauge for 15 sec.
4. Release the pressure by opening the pressure control valve (E) completely.

☞ **Test is passed if**
- maximal pressure is between 12 to 15 bars
- pressure drop is less than 1.5 bars within 30 sec
- no water is leaking (extraction head, housing bottom etc.).

FINAL INSPECTIONS

General

Legal situation

Repair centres can be legally obligated to ensure the safety and physical integrity of the user/consumer by national regulations and standards.

The basic demands of these regulations are:

- The regular condition of the coffee machine has to be restored after a repair.
- If the housing bottom of the coffee machine was removed during a repair, certain tests like shown in this chapter have to be performed after final assembly.

i Check the legal situation in your country to avoid prosecution.

Test equipment

The necessary test equipment

- has to be obtained by the repair centre,
- must comply with EN/IEC 60335-1 and national standard(s) for after-repair testing (e.g. DIN VDE 0701),
- has to be calibrated by a qualified test centre periodically.

i Contact the sales partner in your local region as per the Instruction book and warranty card .

Ideally the test equipment has a national power socket for testing, so that the coffee machine can plugged in directly. Otherwise a special shunt is necessary to connect the phase and neutral pin of the coffee machine's power plug.

i **Only symbolic illustrations of test equipment are shown in this manual.**

Test procedures

The after-repair tests shown in this chapter

- are based on the **German standard DIN VDE 0701 - 0702**,
- are valid therefore for German repair centres only,
- are explained only generally and serve as an example for other nationalities.

For detailed information refer to the operating manual of your test equipment and your national standard(s) for after-repair test.

Job-related requirements for after-repair testing

After-repair tests should only be performed by a certitfied electrician

- with experience in electrical metrology,
- who is familiar with the test equipment and the applicable national standard(s).

Test report

The repair centre should prepare a test report for each repaired coffee machine and keep it safely.

Safety instructions

⚠ WARNING

Danger of electric shock!
Risk of damage to the coffee machine.

High test voltage - hazardous situations can arise if a wrong test is selected or a test is executed incorrectly.

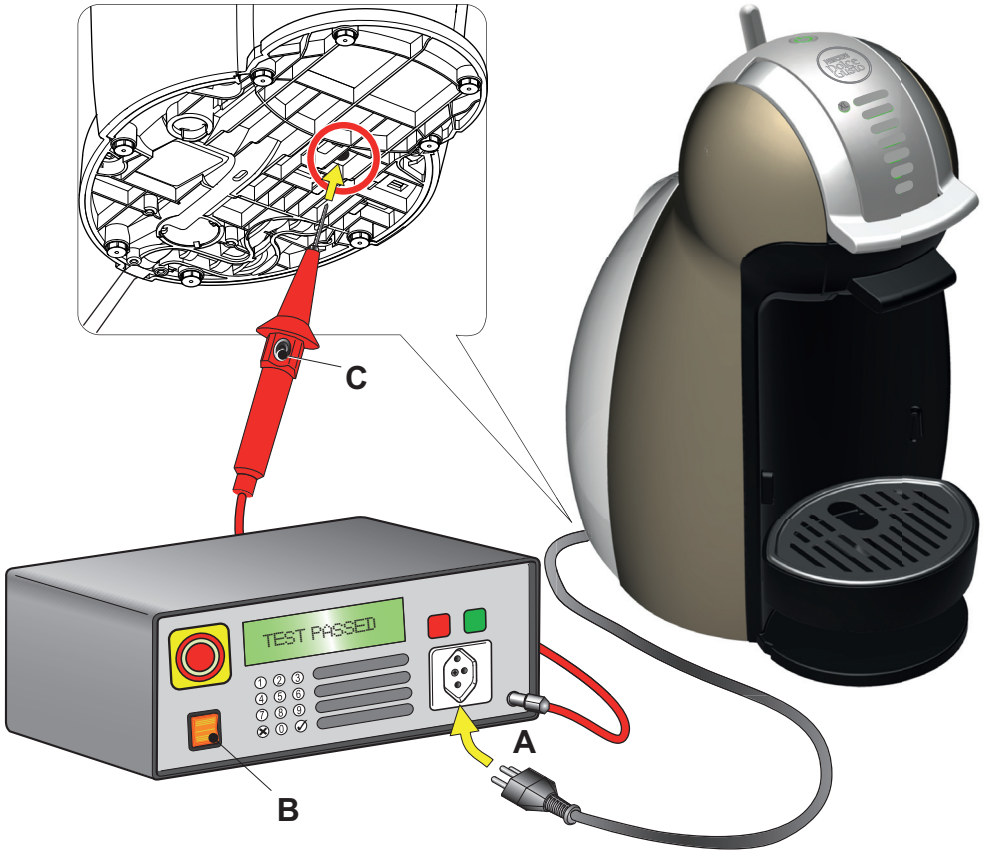
- **Never touch tip of test probe or coffee machine during insulation test.**
- **The tests should only be performed by a competent person who is familiar with the test equipment and the test requirements.**

Protective earthing (PE) resistance test

This test makes sure that
- the protective earth conductor is not interrupted,
- the resistance between the earth pin of the coffee machine's power plug and the thermoblock is within tolerance.

Test procedure

i In the bottom of the main housing is a special test hole for this test.



1. Connect power plug of coffee machine to test equipment (A).
2. Switch on test equipment (B) and select protective earthing test.

3. Touch thermoblock with test probe (through opening in housing bottom (see detail).
4. Press start button (C) and read off displayed resistance.

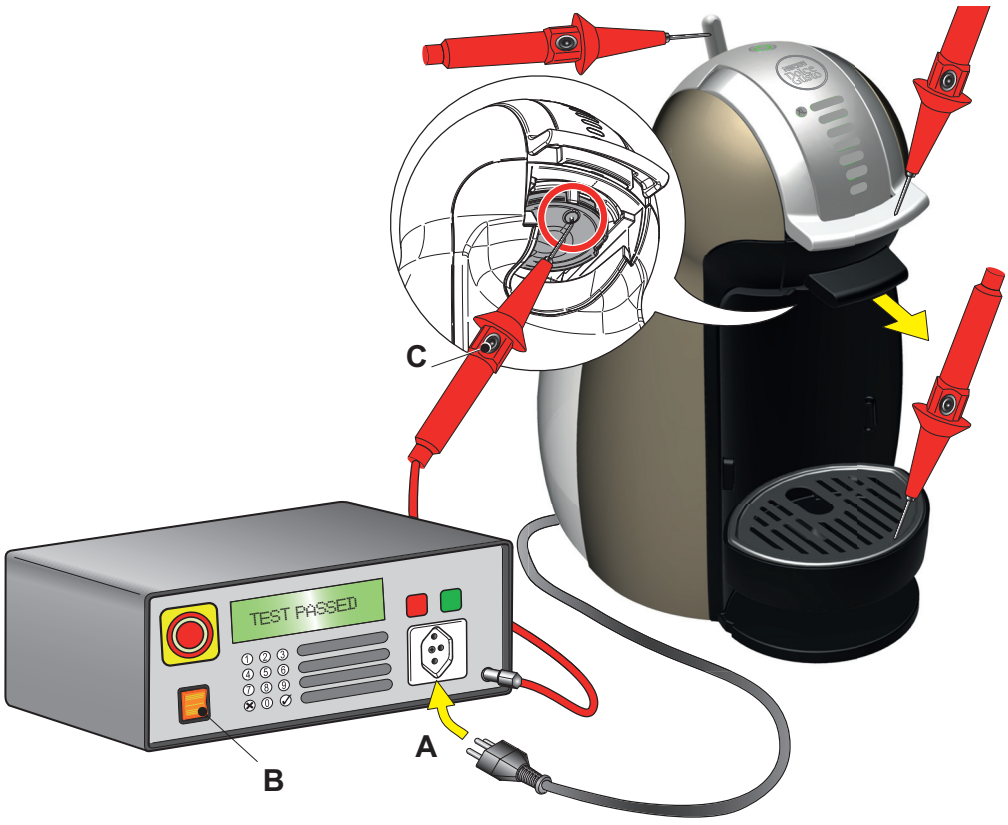
The resistance must be lower than 0.3 Ohm with a minimal test current of 200 mA.

If test fails,
- check/tighten ground connection on thermoblock (see page 44),
- replace power cord if necessary,
- repeat protective earthing test once more.

Insulation resistance test

This test verifies the insulation resistance
- between the protective earthing conductor of the coffee machine and the phase/ neutral conductor of the coffee machine.
- of all conductive and touchable parts of the coffee machine (with the help of a test probe).

Test procedure



1. The coffee machine is assembled completely and has passed the protective earthing test. The capsule holder is removed.
2. Connect power plug of coffee machine to test equipment (A).
3. Switch on test equipment (B) and select protective insulation test.

4. Read off displayed insulation resistance between earthing conductor and phase/ neutral conductors.
5. Switch test voltage to test probe (if necessary).
6. Touch with test probe the following test points:
   - selection lever
   - locking handle
   - needle at underside of extraction head (see detail)
   - drip grid
7. For each test point press start button (C) and read off displayed resistance.

For each test point: The insulation resistance must be higher than 2.0 Mega Ohm with a test voltage of 500 VDC.

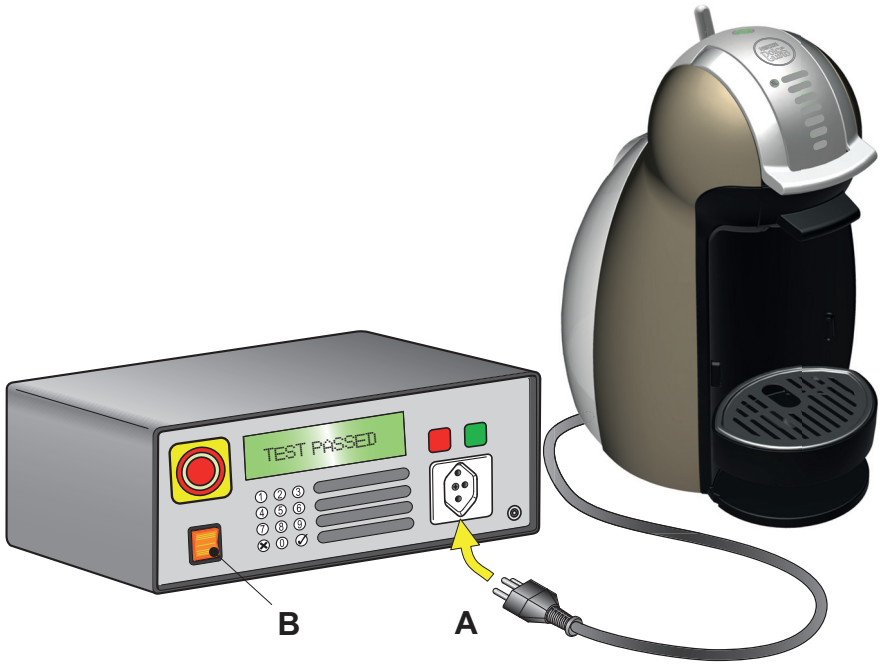
If insulation test fails, a sparkover has damaged the coffee machine probably.
In that case check wiring, locate fault(s) and proceed with troubleshooting check list.
Repeat protective insulation test.

Earth leakage current test

This test measures the leakage current in the protective earth conductor when the coffee machine is switched on.

Depending on the test equipment, different measuring methods are possible.

Test procedure



1. The coffee machine is assembled completely and has passed the insulation test.
2. Connect power plug of coffee machine to test equipment (A).
3. Switch on test equipment (B) and select earth leakage current test.
4. Read off displayed leakage current.
5. If possible reverse power plug of coffee machine, connect it to test equipment again and repeat measurement.

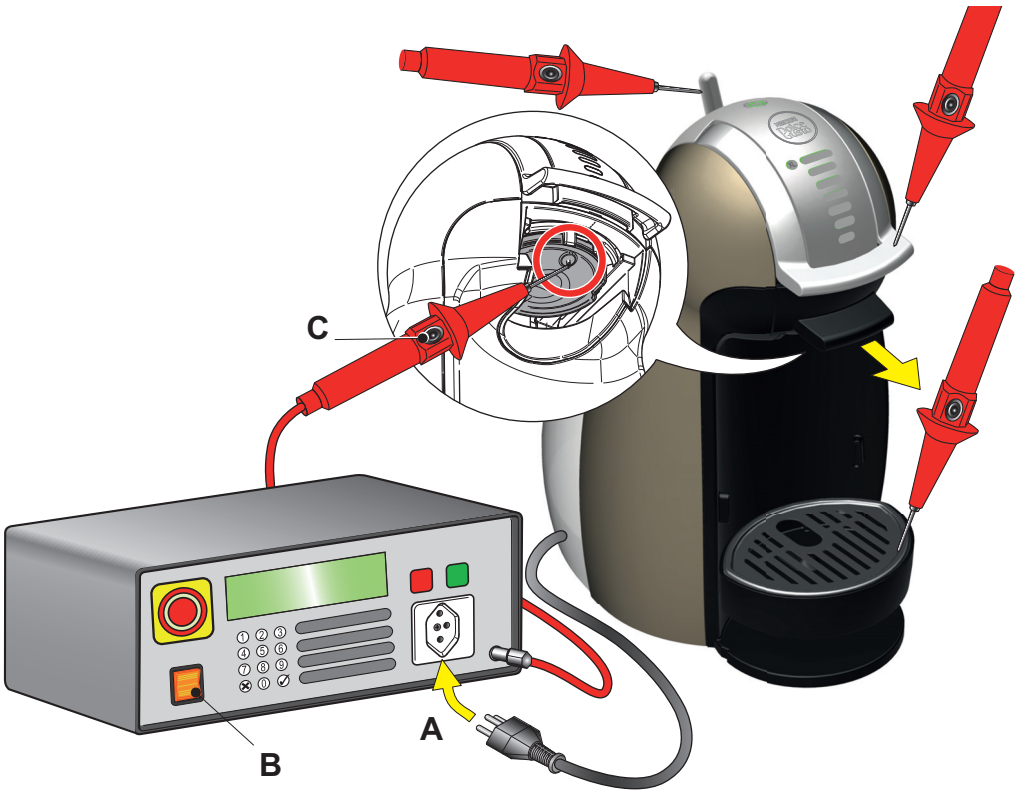
The leakage current in the protective earth connector must be lower than 3.5 mA.

Leakage current test

This test measures the contact current of touchable metallic parts on the coffee machine. The coffee machine has to be switched on for this test.

Depending on the test equipment, different measuring methods are possible.

Test procedure



1. The coffee machine is assembled completely and has passed the earth leakage current test. The capsule holder is removed.
2. Connect power plug of coffee machine to test equipment (A).
3. Switch on test equipment (B) and select leakage current test.
4. Switch on coffee machine (D).
5. Touch with test probe the following test points:
   - selection lever
   - locking handle
   - needle at underside of extraction head (see detail)
   - drip grid
6. For each test point press start button (C) and read off displayed leakage current.
7. Switch off coffee machine.
8. If possible reverse power plug of coffee machine, connect it to test equipment again and repeat measurements.

The leakage current of each metallic part must be lower than 0.5 mA.

MAINTENANCE

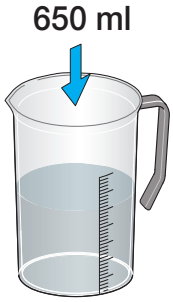
Descaling

☞ **Check needle plate (see page 27) prior to descaling:**
Clean needle plate and deblock needle if necessary.

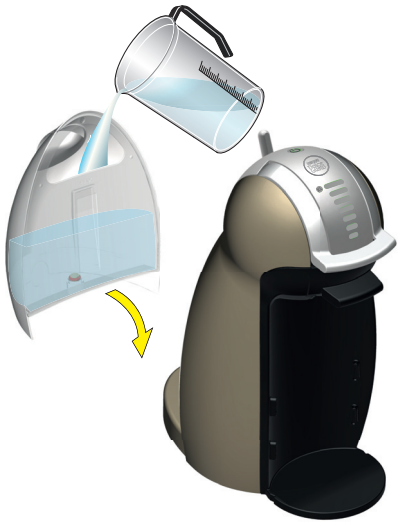
⚠ **Only use appropriate descaling solution that suits for coffee machine - never use Vinegar!**
Decalcifier is aggressive to housing surface.
Carefully read safety instructions on decalcifier package.

1. Switch off machine.

2. Empty water tank and drip tray.

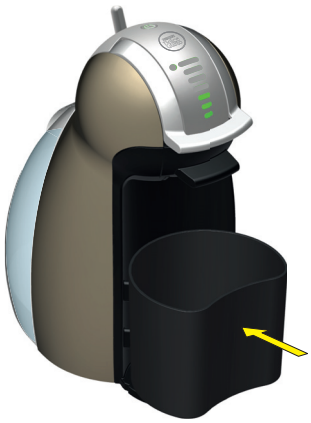


3. Mix 650 ml fresh, drinking water with descaler in a measuring cup.



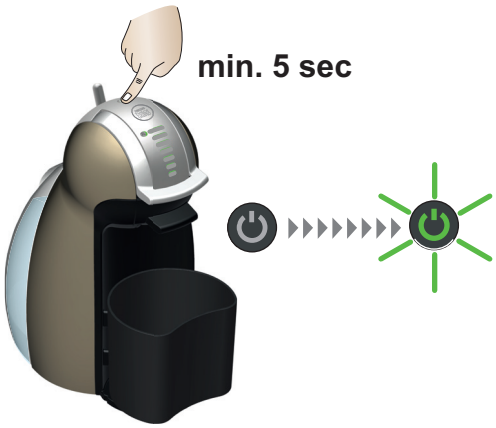
4. Pour descaling solution into water tank.
5. Insert water tank into machine.

6. Open locking handle and check if capsule holder is empty. Close locking handle again.

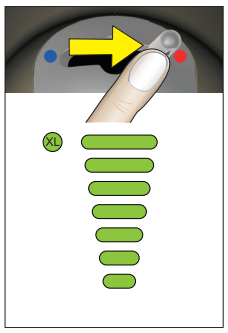


7. Place capsule bin (without insert) under coffee outlet.

i Instead of the capsule bin another container with a capacity of min. 1 litre can be used.



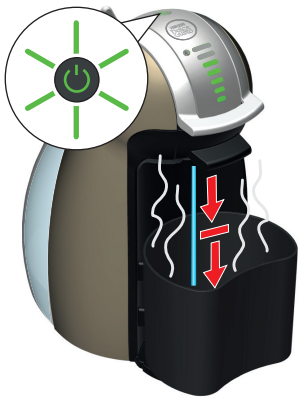
8. Press and hold power button for at least 5 sec.
9. The power button starts blinking green and the machine heats up for descaling.



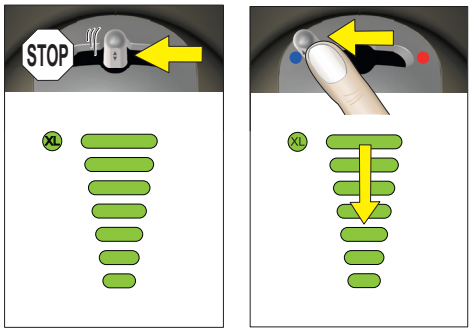
10. After releasing the power button, the bargraph display switches to maximum setting.
11. Push selection lever to the right for descaling of hot water circuit.

i Do not interrupt the descaling procedure. The procedure takes approx. 15 min.

i If the selection lever does not stay in the right position, the machine is still heating up. Try again after a short pause.



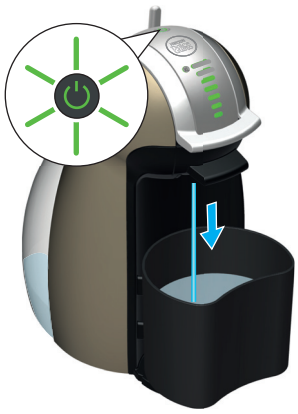
12. The machine descales in start-stop operation for approx. 2 min.
13. The bargraph display counts down while power button is blinking green.



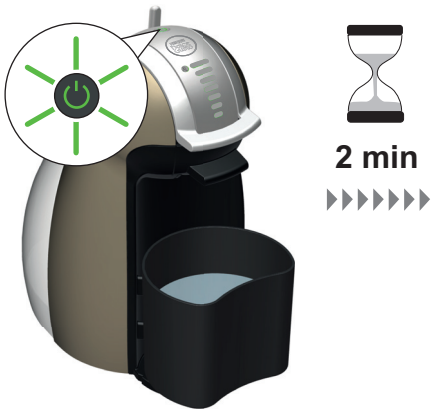
14. Wait until countdown is finished and machine stops. The bargraph display switches to maximum setting.
15. Push selection lever to the left for descaling of cold water circuit.

i The thermoblock temperature is monitored at 65 - 70 °C during descaling.

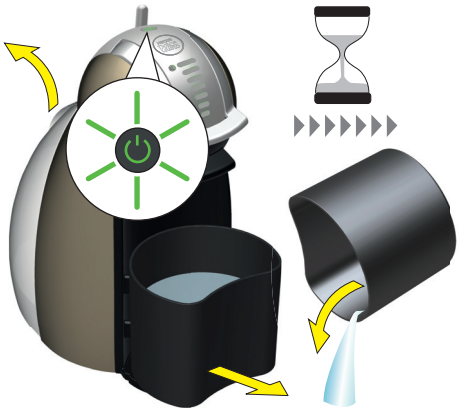
i The machine cannot be restarted during waiting time.



16. The machine descales continuously.
17. Wait until countdown is finished and machine stops.



18. For a better effect of the descaler, the machine enters a waiting time of 2 min. The power button blinks green during the waiting time.

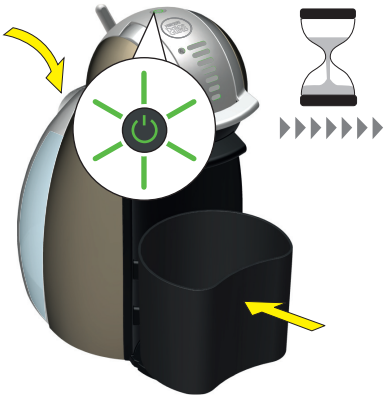


Working steps during waiting time:

19. Remove and empty capsule bin.
20. Remove water tank.

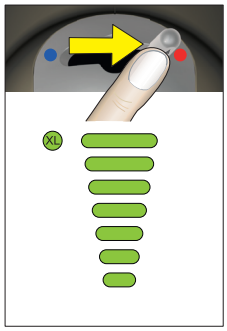
Working steps during waiting time:

21. Rinse and clean water tank thoroughly using clean cleaning tools.
22. Fill water tank with fresh drinking water up to max. level.

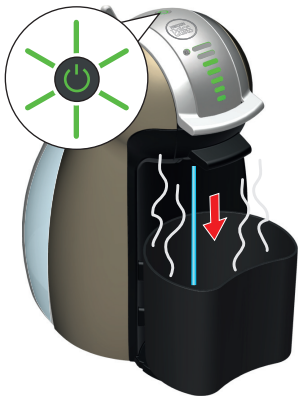


Working steps during waiting time:

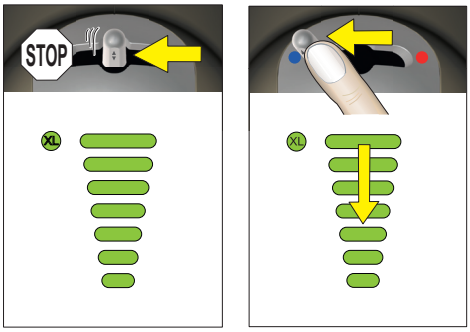
23. Place capsule bin under coffee outlet again.
24. Re-insert water tank.



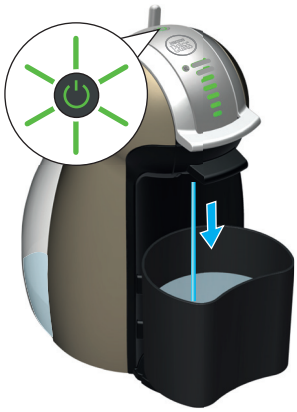
25. Bargraph display switches to maximum setting after waiting time.
26. Push selection lever to the right for rinsing of hot water circuit.



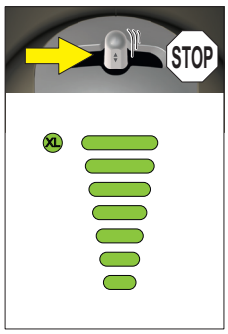
27. The machine rinses with hot water.
28. Wait until countdown is finished and machine stops.



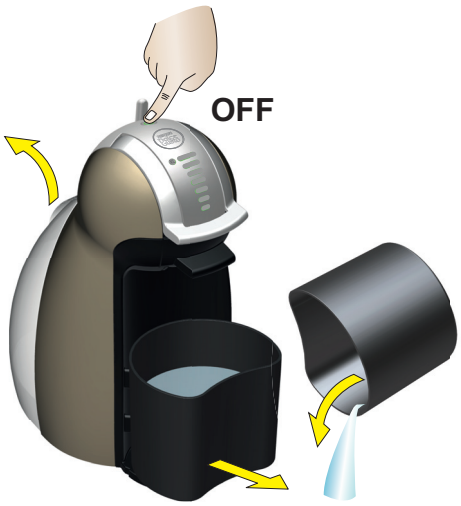
29. The bargraph display switches to maximum setting.
30. Push selection lever to the left for rinsing of cold water circuit.



31. The machine rinses with cold water.
32. Wait until countdown is finished and machine stops.



33. The bargraph display switches to maximum setting. The machine ends the descaling mode and heats up.



34. Switch off machine.
35. Remove and empty capsule bin.
36. Remove and refill water tank with fresh drinking water.

37. Clean machine with a soft damp cloth.
38. Dry it afterwards with a soft dry cloth. Use only clean cleaning tools.
39. Attach drip tray on machine.

⚠ Never use a wet sponge to clean the head of the machine!

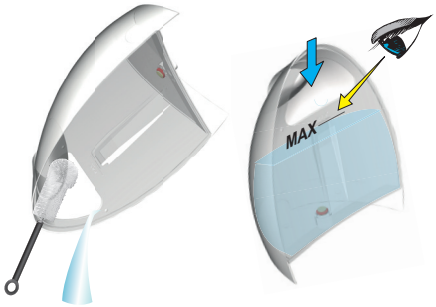
Daily care and final cleaning

⚠ Never use detergents to clean the appliance. Do not clean in a dishwasher. Clean the appliance only using soft cleaning cloths, sponges or brushes.
The water tank must be cleaned with a baby bottle brush.
Use only clean cleaning tools.

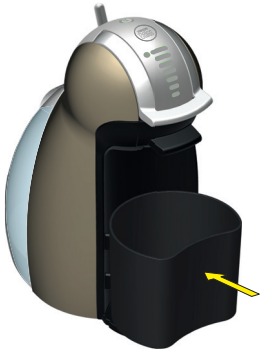
1. Remove drip tray with drip grid.
2. Empty and rinse drip tray. Clean parts with a brush.
3. Wipe dry and re-insert drip tray with drip grid.

4. Remove capsule holder.
5. Rinse both sides of the capsule holder with water.
6. Wipe dry and re-insert empty capsule holder.

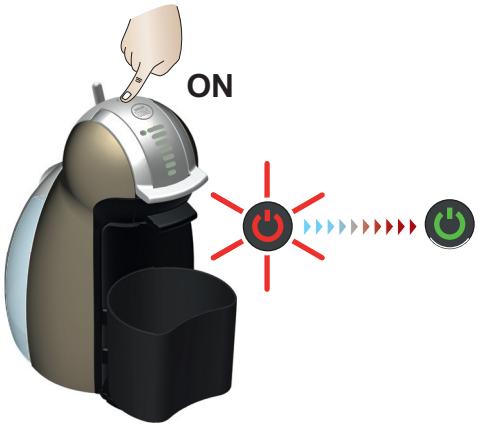
ℹ Instead of the capsule bin another container can be used.



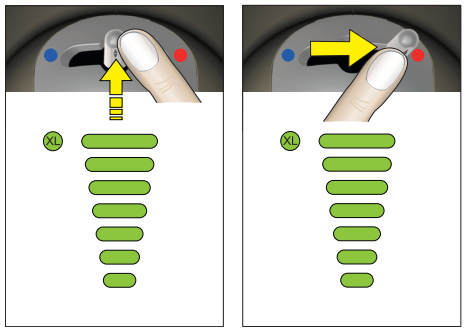
7. Remove and empty water tank.
8. Rinse water tank and clean inside with a baby bottle brush.
9. Fill water tank with fresh drinking water and insert it into machine.



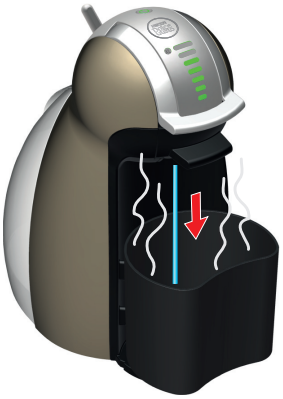
10. Place capsule bin (without insert) under coffee outlet.



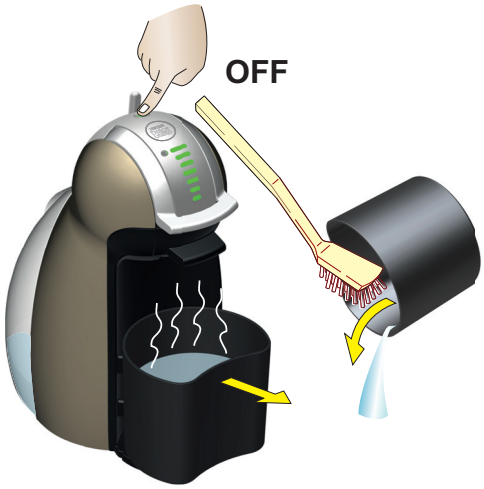
11. Switch machine on.
12. Wait until power button light turns steady green and machine is ready.



13. Push selection lever up to set the bargraph display to maximum level.
14. Move selection lever to the right for hot water rinsing.



15. Machine starts rinsing and the bargraph counts down.
16. Wait until countdown is finished and machine stops.



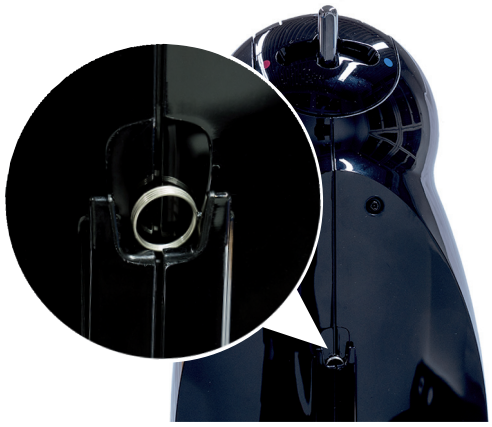
17. Switch off machine.
18. Remove and empty capsule bin.
19. Clean and wipe dry capsule bin.

20. Clean machine with a soft damp cloth.
21. Dry it afterwards with a soft dry cloth. Use only clean cleaning tools.
22. Attach drip tray on machine.

⚠ Never use a wet sponge to clean the head of the machine!

Packing instructions

⚠ The beverage center and all accessories must be packed in polybags to avoid scratches during transportation.

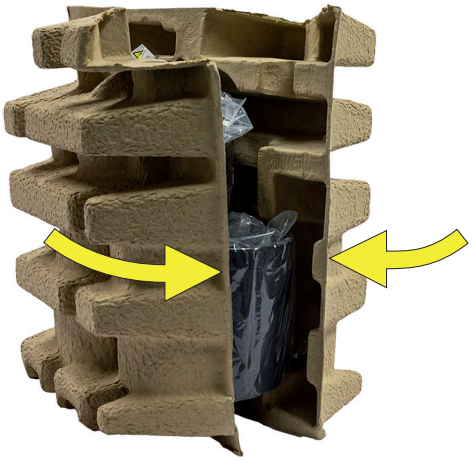


1. Check if cleaning needle is in support.

2. Check if capsule holder is inserted.

3. Pack machine in a polybag (size e.g. 350 x 460 mm).
4. Pack drip tray with drip grid in another polybag (size e.g. 180 x 180 mm).
5. Pack capsule bin with insert in another polybag (size e.g. 250 x 300 mm).

6. Stow drip tray in capsule bin.
7. Insert machine and capsule bin in a pulp tray.

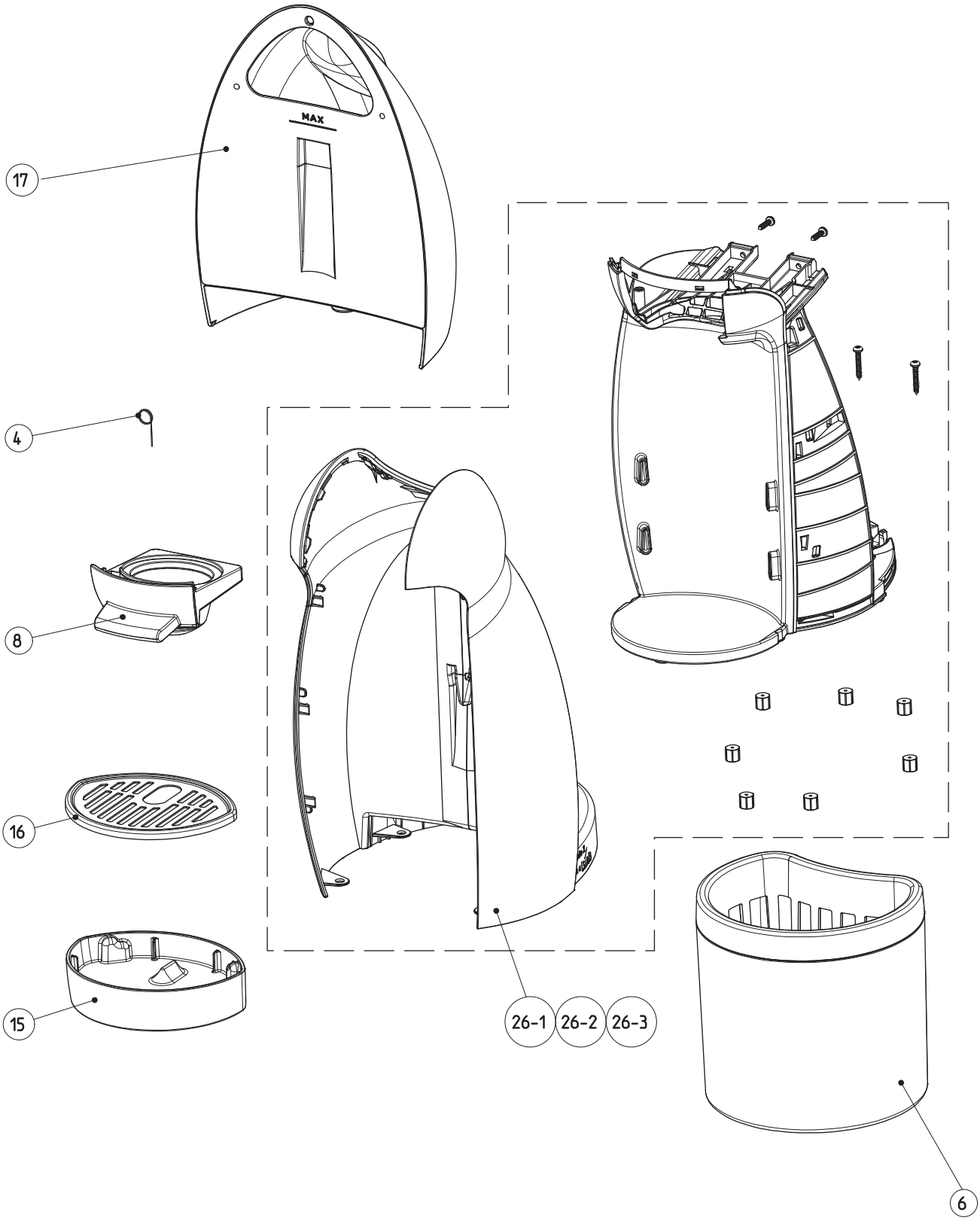


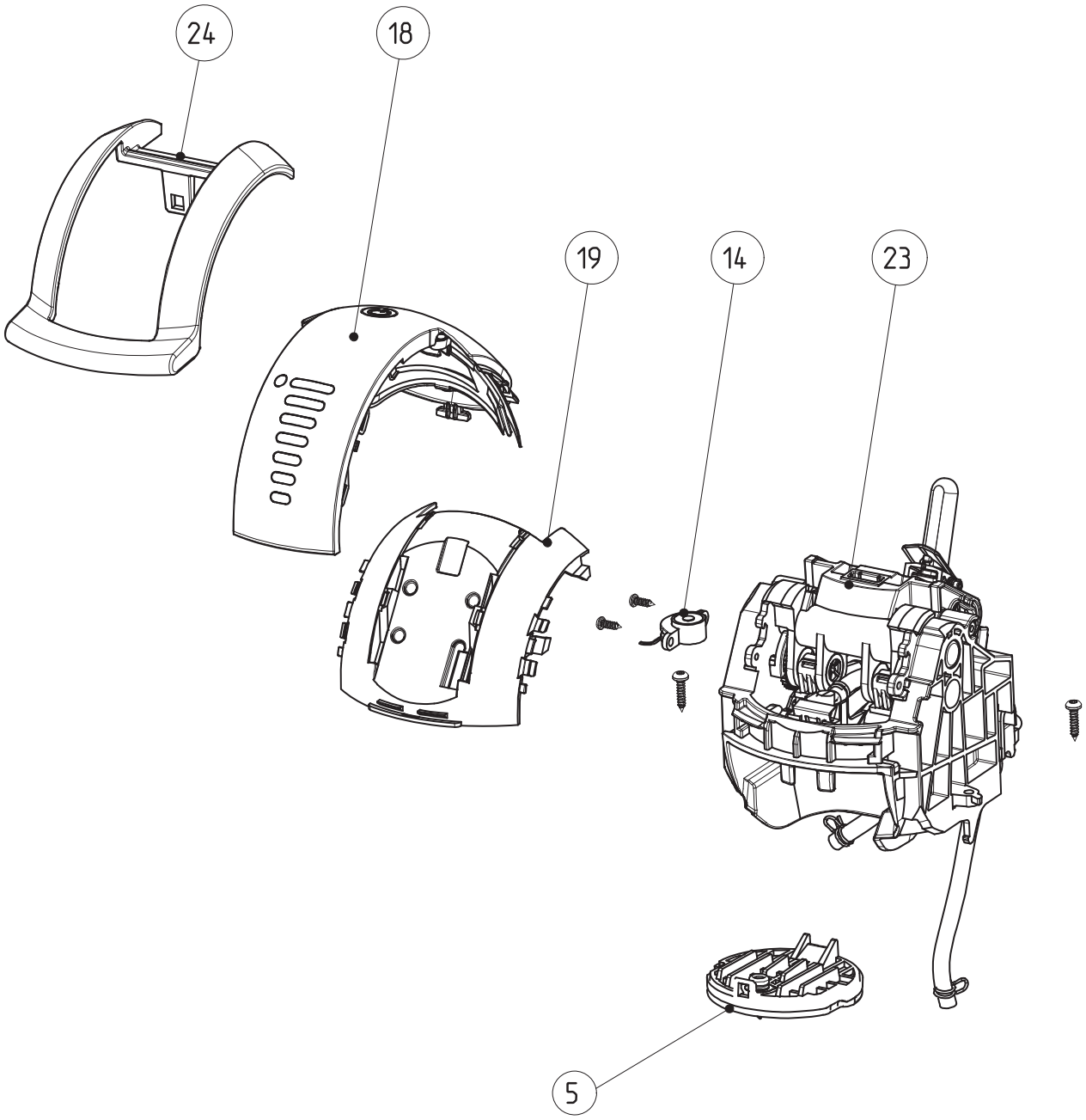
8. Put pulp trays together.

9. Insert pulp trays in cardboard box.

10. Close cardboard box and secure lid with adhesive tape.

KRUPS SPARE PARTS

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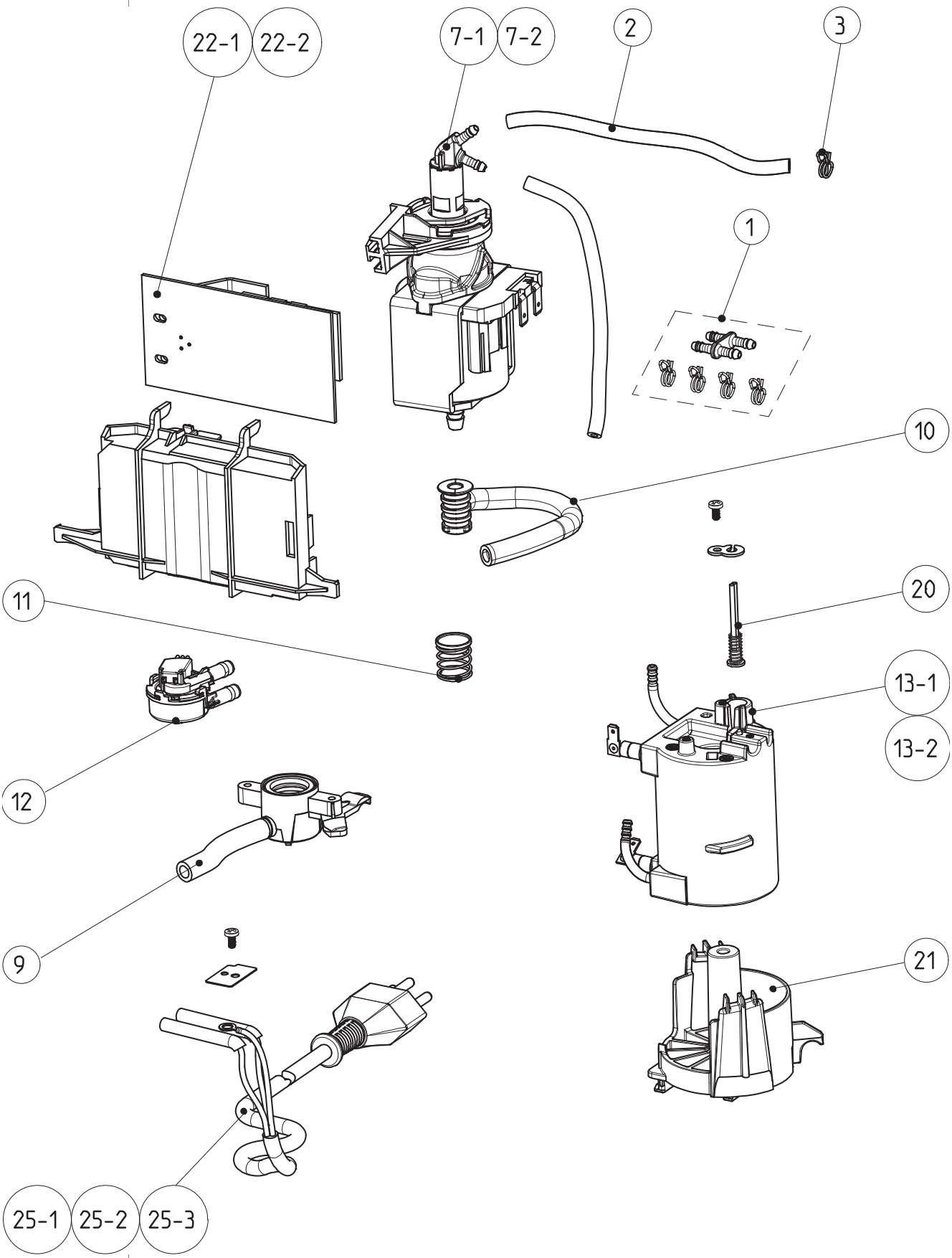
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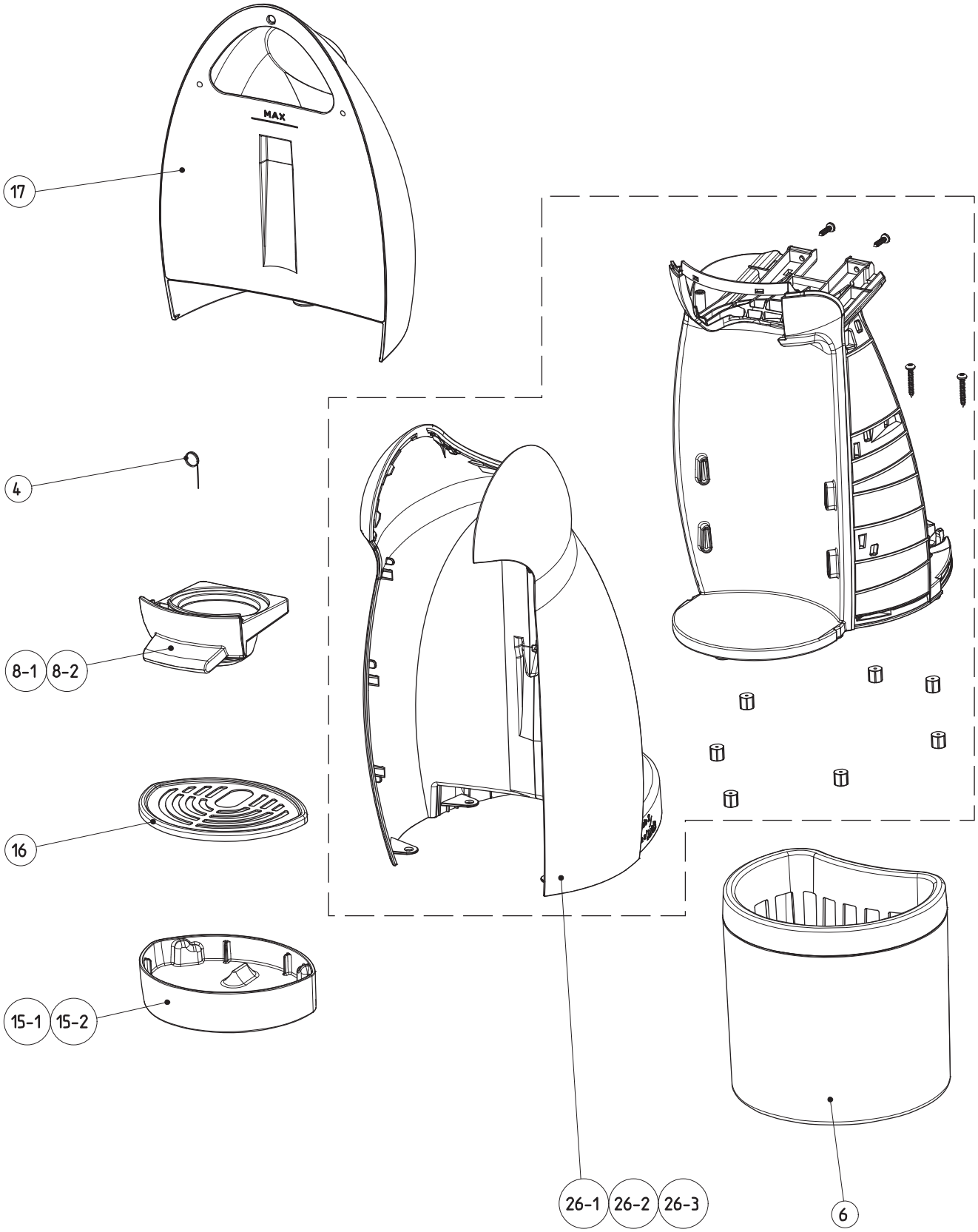
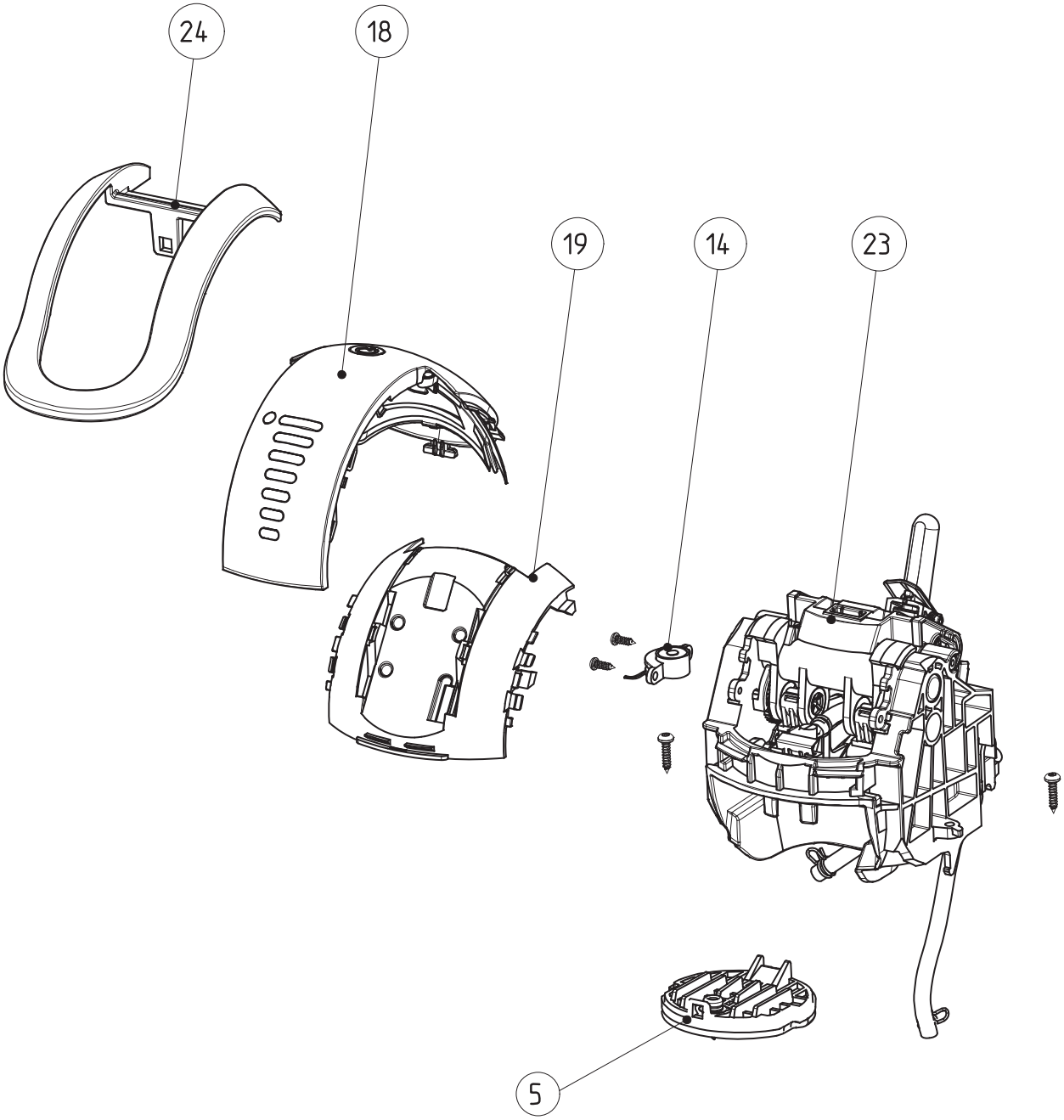
25-2
25-3

Pos.	Part Description	WIK Part Number
1	H connector + Hose clips	9310020100
2	Silicon tube 1M	9310062300
3	Hose clips	9310062100
4	Clean spring	9310113300
5	Needle plate cpl.	9310112900
6	Bin assembly	9310305500
7a	Pump 220-240V with fuse assembly	9310127000
7b	Pump 127V with fuse assembly	9310127100
8	Capsule holder black	9310223300
9	Water connector assembly	9310223600
10	Silicone elbow	9310381000
11	Spring support top + spring	9310346300
12	Flowmeter *Nespresso*	9310379600
13a	Thermoblock 220-240V	9310379800
13b	Thermoblock 127V	9310379900
14	Electromagnet + clamp	9310380500
15	Drip tray black W/O brand	9310383600
16	Drip grid	9310383700
17	Water tank assembly	9310385000
18	HMI assembly silver	9310383800
19	HMI support silver	9310396300
20	Wire NTC with spring	9310379700
21	Thermoblock holder KP16	9310385100
22a	PCB 220-240V assembly	9310383900
22b	PCB 127V assembly	9310384000
23	Head assembly	9310384100
24	Clamp handle	9310384200
25a	Power cord assembly EU	9310223800
25b	Power cord assembly BR	9310380400
25c	Power cord assembly SG&MS	9310291900
26a	Housing L&R titanium	9310384300
26b	Housing L&R red metal	9310384400
26c	Housing L&R matt black	9310384500

i The repair chapter is based on these position numbers.

DE´LONGHI SPARE PARTS

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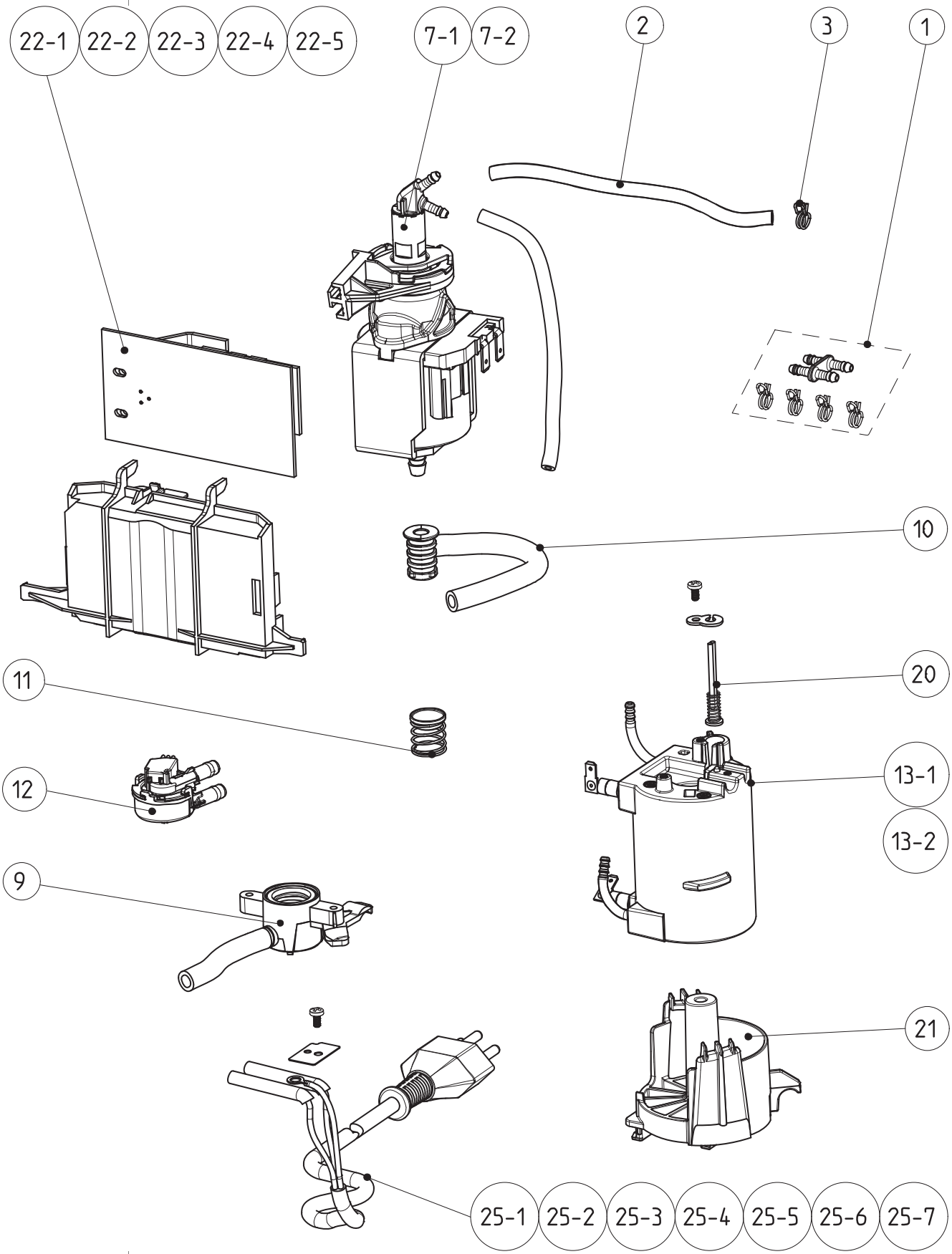
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25-2
25-3
25-4
25-5
25-6
25-7

Pos.	Part Description	WIK Part Number
1	H connector + 4 Hose clips	9310020100
2	Silicon tube 1m	9310062300
3	Hose clips	9310062100
4	Clean spring	9310113300
5	Needle plate assembly	9310112900
6	Bin assembly	9310305500
7-1	Pump 220-240V with fuse assembly	9310127000
7-2	Pump 127V with fuse assembly	9310127100
8-1	Capsule holder black	9310223300
8-2	Capsule holder cool grey	9310223400
9	Water connector assembly (with tube)	9310223600
10	Silicone elbow	9310381000
11	Spring support top + spring	9310346300
12	Flowmeter *Nespresso*	9310379600
13-1	Thermoblock 220-240V	9310379800
13-2	Thermoblock 127V	9310379900
14	Electromagnet + clamp	9310380500
15-1	Drip tray black (without marking brand)	9310383600
15-2	Drip tray cool grey (without marking brand)	9310383600
16	Drip grid	9310398800
17	Water tank assembly	9310385000
18	HMI assembly black	9310398900
19	HMI support black	9310399000
20	Wire NTC with spring	9310379700
21	Thermoblock holder KP16	9310385100
22-1	PCB 230V assembly	9310383900
22-2	PCB 127V assembly	9310384000
22-3	PCB 120V assembly	9310399100
22-4	PCB 110V assembly	9310399200
22-5	PCB 100V assembly	9310399300
23	Head assembly (with needle plate and electro-magnet). With sticker (risk of injury due to needle)	9310384100
24	Clamp handle	9310399400
25-1	Power cord assembly EU (with fuse and wiring)	9310223800
25-2	Power cord assembly BR 127V (with fuse and wiring)	9310380400
25-3	Power cord assembly MY/SG	9310291900
25-4	Power cord cpl. UL	9310224200

i These position numbers do not correspond with the ones in the repair chapter.

Pos.	Part Description	WIK Part Number
25-5	Power cord cpl. AU	9310319900
25-6	Power cord cpl. UK	9310224000
25-7	Power cord cpl. CH	9310223900
26-1	Kit Housing right & left ABS piano black	9310399500
26-2	Kit Housing right & left PC piano black	9310399600
26-3	Kit Housing right & left silver	9310399700

NOTES