



Essenza C91 (WIK)
Essenza D91 (WIK)



Contents

Preface	3	Replacing compact brewing unit	21
General	3	Wiring diagram - Europe (230V / 50 Hz)	22
Nespresso technical website	3	Function Tests	23
Content updates	3	Measuring flow rate (1)	23
General Safety Notes	4	Measuring flow rate (2)	24
Main Components	5	Checking for leaks and pump pressure (1)	25
Overview	5	Checking for leaks and pump pressure (2)	26
Overview of rating plates	6	Measuring coffee temperature	27
Water circuit	7	Protective earth continuity test (1)	28
Technical data	8	Protective earth continuity test (2)	29
Operation	9	Protective insulation test (1)	30
Preparation	9	Protective insulation test (2)	31
Fill water system	10	Protective insulation test (3)	32
Making coffee	11	Maintenance	33
Empty water system	12	Descaling (1)	33
Coffee machine status	13	Descaling (2)	34
Troubleshooting	14	Daily care and final cleaning	35
Checking the machine on receipt	14	Spare Parts	37
Repair	16	Repair accessories	37
Safety instructions	16	Spare parts C91	38
General disassembly	16	Notes	40
Replacing NTC	17		
Replacing thermoblock	18		
Replacing pump	19		
Replacing electronic control board with button prints	20		



General

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 coffee machines C91 and D91.

This 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.



Nespresso technical website

Visit the *Nespresso* technical website periodically to check for upgrades, technical modifications, counter measures etc. for this coffee machine: <https://business.nespresso.com>



Access is restricted and can be obtained by asking your *Nespresso* technical contact person.

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



Content updates



The version number of this service manual is printed on the lower right corner of the page.

Version 1.0

First released service manual version.

General Safety Notes

⚠ Risk of fatal electrical shock and fire!
Mains voltage inside the coffee machine.

- **Unplug appliance before cleaning.**
- **Never clean wet or immerse plug, cord or appliance in any fluid.**
- **Disconnect the mains plug before disassembly - the appliance must be free of voltage.**

As an additional safety measure, the use of a residual current device (RCD), also called a ground fault circuit interrupter (GFCI), in the repair centre is highly recommended.

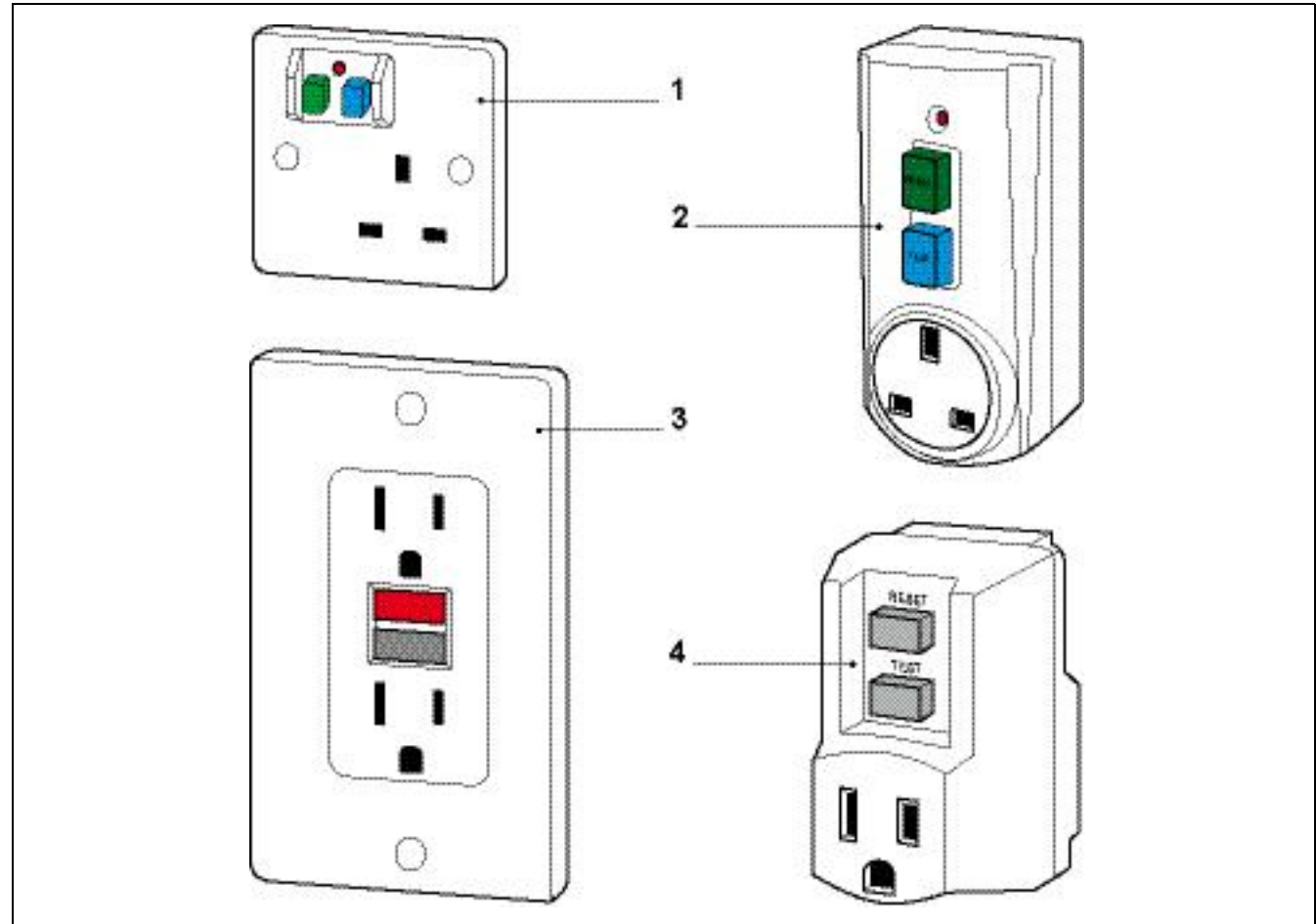
⚠ This device does not protect against electrical shock due to contact with both circuit conductors.

👉 Use a GFCI with a trip level of 4 - 6 mA (USA) resp. a RCD with a trip level of 15 - 30 mA (Europe). A trip level above 30 mA provides only very limited protection against harm from an electric shock.

⚠ Danger of burns!
Hot parts and water under pressure inside the coffee machine (particularly in the thermoblock).

- **Let coffee machine cool down before cleaning or disassembly.**

Example illustrations of typical devices:



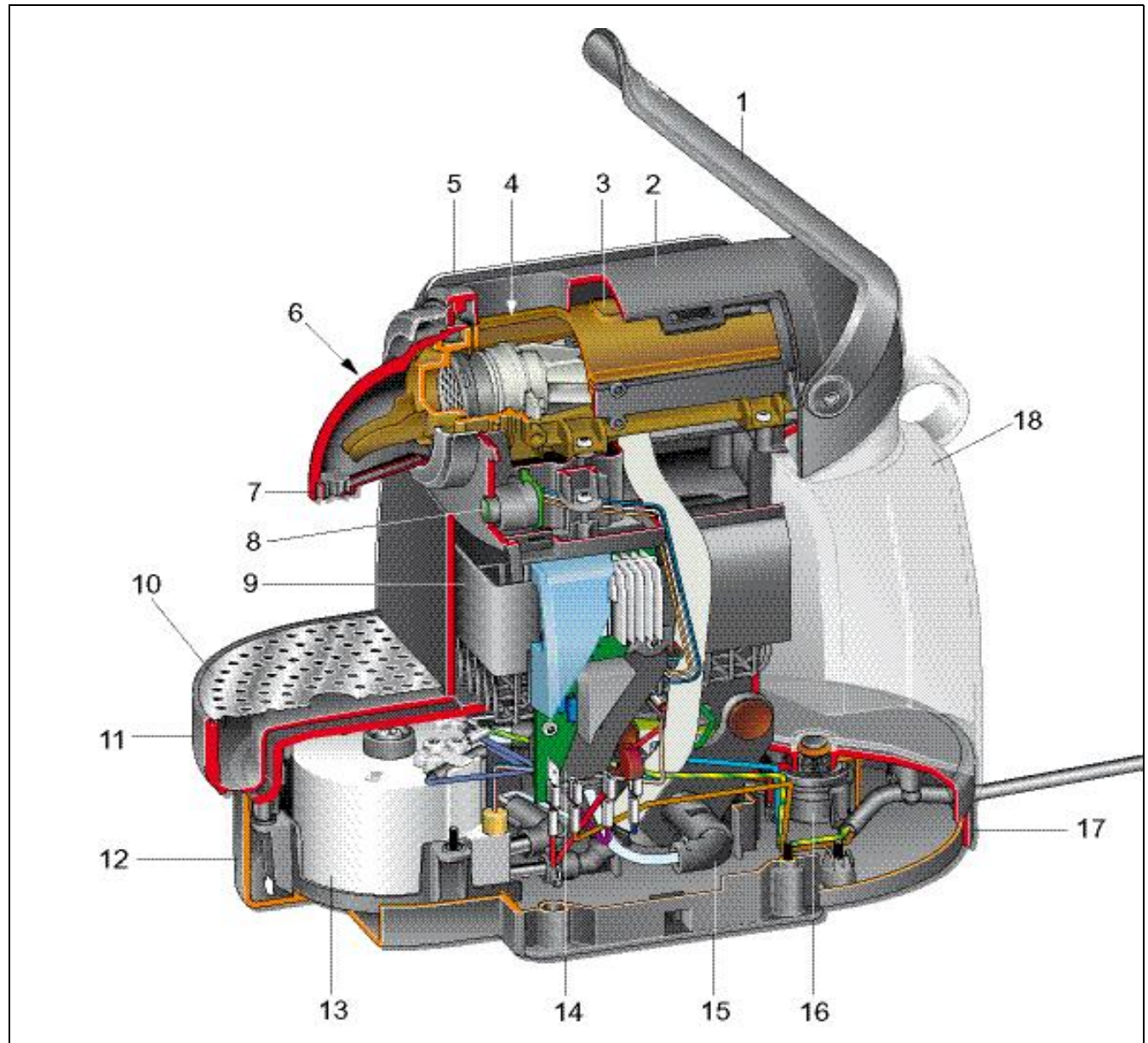
- 1) RCD protected socket-outlet
- 2) Plug-in RCD unit
- 3) GFCI socket
- 4) Plug-in GFCI



Main Components

Overview

- 1) Closing handle
- 2) Cover
- 3) Compact brewing unit (TCBU)
- 4) Capsule inlet
- 5) Side panel
- 6) On/Off button
- 7) Coffee outlet
- 8) Coffee button, back lighted
- 9) Container for used capsules
- 10) Drip grid
- 11) Drip tray
- 12) Lower chassis
- 13) Thermoblock WIK
- 14) Electronic control board
- 15) Pump
- 16) Water tank connector
- 17) Upper chassis
- 18) Water tank





Main Components

Overview of rating plates

The rating plate can be found at the underside of the coffee machine. It is of varying design depending on the brand and carries the following information:

- Machine type
- Voltage and power rating
- Manufacturing country
- Conformity with RoHS guidelines
- Special disposal icon
- Sign of conformity (CE)
- Bar code
- Serial number



This overview shows examples of various brands and is subject to alterations.

Serial number codification

Example: 10190C91x0002782090

10190 production date: 190th day of year 2010

C91 machine type

x production site

0002 incremental number per production day

7 machine partner codification

8 voltage

2 mains plug version

09 colour version

0 checksum number

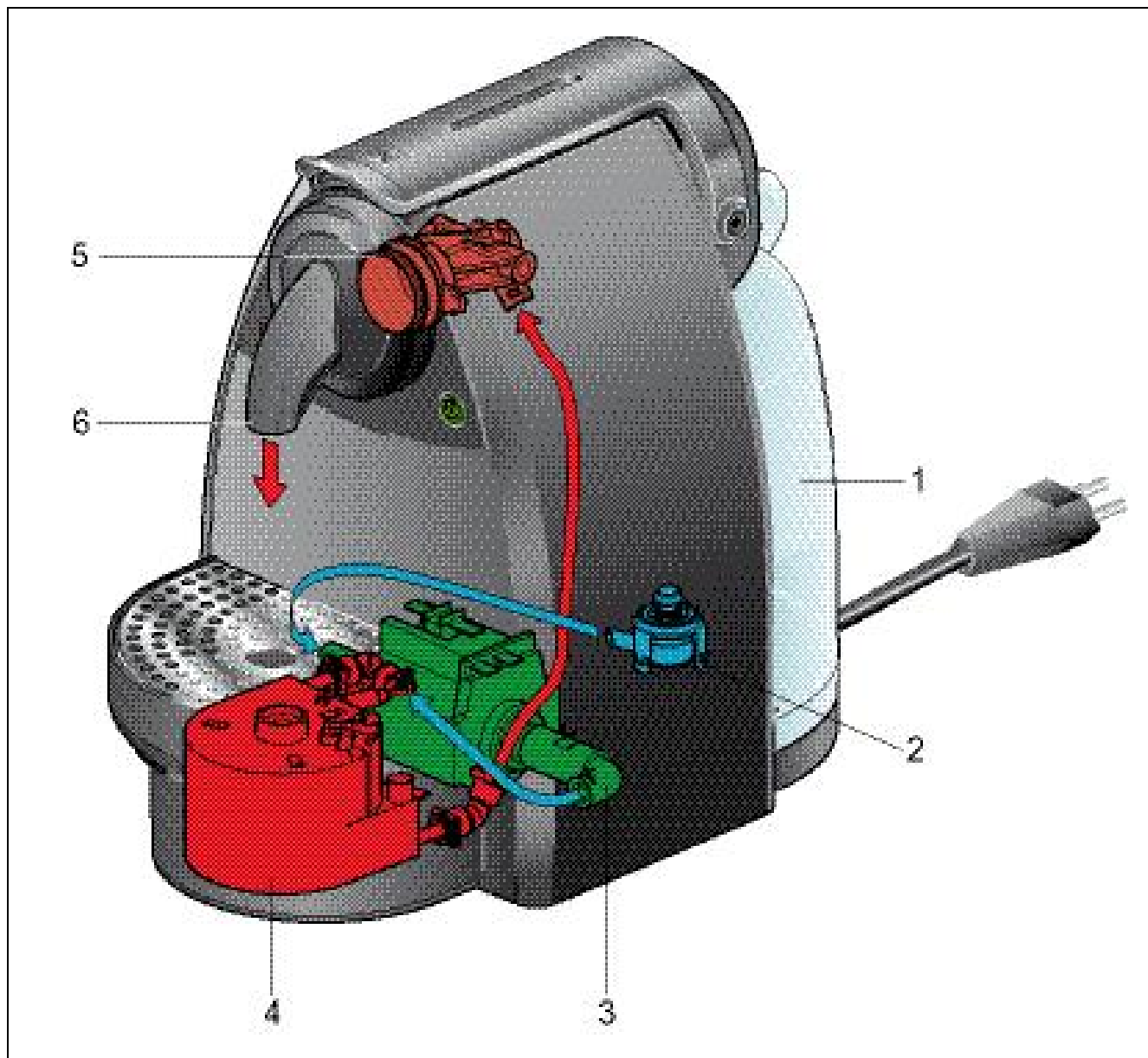




Main Components

Water circuit

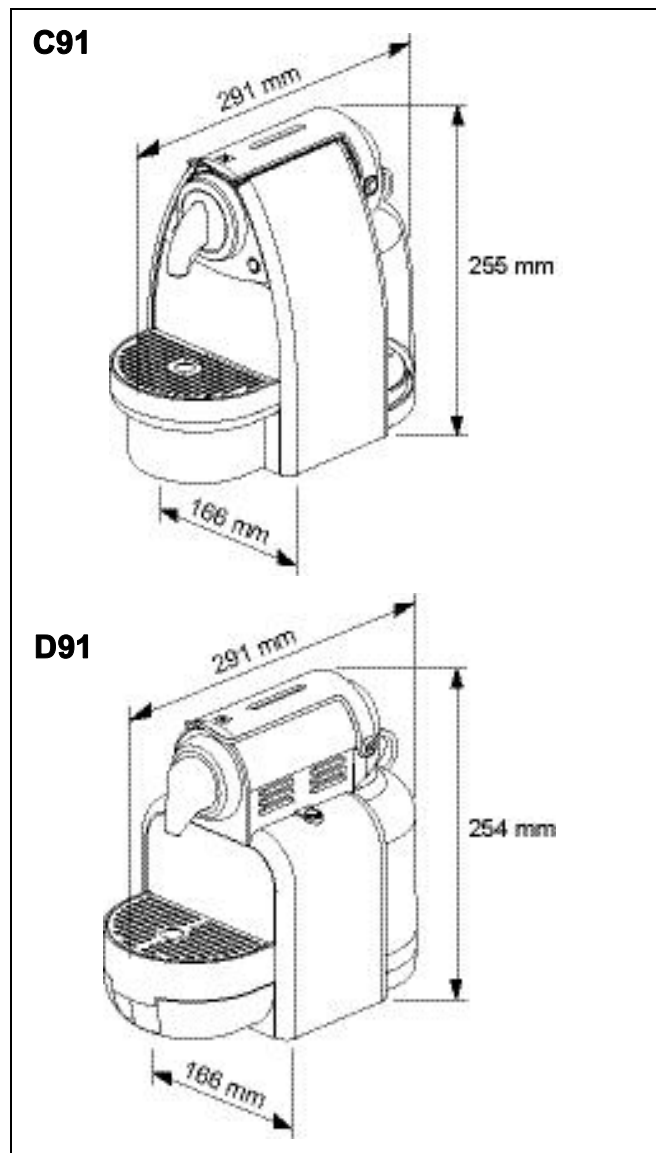
- 1) Water tank
- 2) Water tank valve and connector
- 3) Pump
- 4) Thermoblock
- 5) Compact brewing unit (TCBU)
- 6) Coffee outlet





Main Components

Technical data



Mains

EUR	230V / 50 Hz
Approvals	CE-conform
Cable length	approx. 1.1 m

Energy consumption (CECED / FEA 2009 method)

Energy efficiency class level	A
Daily energy consumption	129 Wh
Annual energy consumption	47.09 kWh

Pump data

Pump pressure	
- max. permissible	19 bar ± 2 bar
- during coffee preparation (depending on brand of coffee)	9 - 13 bar

Various data

Pre-heating time approx.	50 sec.
Safety temperature (thermal cut-off)	167° C
Coffee temperature at outlet	86° C ± 3° C

Flow performance 120 - 240 ml/min. at 12 bar

Weight of machine (without water)	approx. 3 kg
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Capacities

Water tank	0.9 l
Drip tray	approx. 100 ml
Capsule container	10 - 14 pcs.

Power consumption

(at all voltages and frequencies)	
Total power consumption	1'260 W
Thermoblock	1'200 W
Pump (old/new version)	48/65 W

Operation



Preparation

1. Fill tank with water.
2. Insert water tank in coffee machine.
3. Switch on machine by pressing the On/Off button.
4. Position receptacle with a capacity of min. 100 ml under coffee outlet.

 **Do not insert a capsule yet.**

5. Wait until machine is ready (coffee button stops blinking).
6. Press coffee button to rinse coffee outlet.
7. Press coffee button again to stop rinsing when receptacle is filled.





Operation

Fill water system

If the coffee machine cannot pump water although there is water in the tank, the water circuit may be empty.

Procedure to fill water system:

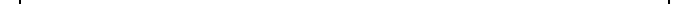
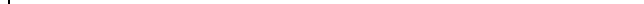
1. Perform steps 1 to 5 for preparation (see page 9).
2. Open closing handle in vertical position.
3. Press coffee button.
4. Press and hold closing handle to rear end position.
5. Observe capsule inlet for appearing water.
6. Press down closing handle immediately when first droplets are visible.
7. Press coffee button again to stop water flow.





Making coffee

1. Open closing handle.
2. Insert capsule.
3. Press down closing handle completely.
4. Position cup under coffee outlet.
5. Press coffee button.
6. Press button again to stop coffee flow when cup is full.
7. Briefly open closing handle after coffee preparation and eject capsule into capsule container.





Empty water system

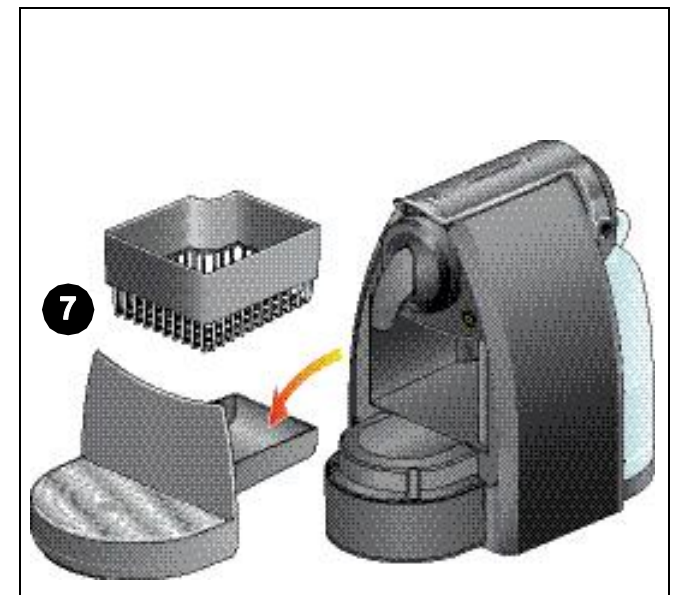
After operation, residual water remains in the water circuit.

This residual water can be removed

- before a longer period of non-use,
- for frost protection,
- before repair and following shipping.

1. Empty water tank.
2. The machine is switched off: Press and hold On/Off button.
3. Simultaneously press coffee button three times.
4. Release both buttons.
The coffee button starts blinking fast and the thermoblock heats up, evaporating the residual water.
5. Open closing handle and hold it in opened position.
6. After coffee button stops blinking, press down closing handle completely.
7. Empty drip tray.

 After this procedure the machine is blocked for approx. 10 minutes (till thermoblock temperature <math>< 100^{\circ}\text{C}</math>).





Operation

Coffee machine status

After pressing the On/Off button, an automatic self test is performed to check if

- the NTC is connected,
- the NTC is short circuited,
- the thermoblock reaches the standby temperature within 2 minutes in brewing mode.

A detected failure is indicated by the back-lighted coffee button as well as the operating modes listed in the following table.

Operating mode	Coffee button	LED signal
Off		off
Heat up (coffee)		blinking slow
Ready		on
System too hot		blinking fast
Brew coffee / rinse		blinking slow
Heat up (descaling)		blinking fast
Descaling ready		blinking fast
Pump on (while descaling)		blinking fast
Emptying water system		blinking fast
Failure		blinking three times fast



Checking the machine on receipt

The receipt check 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 appliance for visible damage	1.1 Parts of housing broken or damaged	YES - Replace parts if necessary NO - Go to point 1.2	
	1.2 Mains cable damaged	YES - Replace mains cable NO - Plug machine to the mains and go to point 2.1	
2 Check mechanical elements	2.1 Closing handle works correctly	YES - Go to point 2.2	
		NO - It is hard or impossible to close the closing handle	YES - Screw on closing handle screws at defined torque or replace CBU (see page 22) NO - Replace the CBU
	2.2 Is the capsule correctly ejected?	YES - Go to point 3 NO - Replace TCBU	
3 Fill water tank	3.1 Water tank is leaking	YES - Replace water tank NO - Go to point 4	
4 Press On/Off button to perform automatic self test	4.1 Machine is not working (no function)	YES - a) Check if mains cable is functional	YES - Go to point b) NO - Replace it
		YES - b) Check if On/Off button is functional	YES - Go to point c) NO - Replace it
		YES - c) Check if pump is working (press coffee button)	YES - Go to point f) NO - Go to point d)
		YES - d) Check if coffee button is functional	YES - Go to point e) NO - Replace it
		YES - e) Check if pump's thermal fuse (128°C) is defective	YES - Replace pump (see page 20) NO - Go to point f)
		YES - f) Check if thermoblock's thermal fuse (167°C) is defective	YES - Replace thermal fuse and if necessary thermoblock too (see page 19) NO - Go to point g)
		YES - g) Check if electrical wires are functional	YES - Replace electronic mainboard (see page 21) NO - Replace defective(s) wire(s)
	NO - Go to point 4.2		




Check procedure	Symptoms	Action / repair work	Further action / repair work
4 Press On/Off button to perform automatic self test (continued)	4.2 Backlighted coffee button blinks at irregular intervals	YES - Check if thermoblock heating element is functional	YES - Replace NTC (see page 18) NO - Replace thermoblock (see page 19)
		NO - Self test ok. Go to point 5	
5 Check coffee temperature while preparing a coffee (see page 29)	5.1 No coffee at outlet	YES - a) Water system is empty	YES - Fill water system (see page 10) NO - Go to point b)
		YES - b) Pyramid plate is clogged	YES - Replace TCBU (see page 22) NO - Go to point c)
		YES - c) Machine is blocked by scale	YES - Descale machine (see page 36)
		NO - Go to point 5.2	
	5.2 Temperature is too low (less than 83°C)	YES - Descale the machine (see page 36) NO - Go to point 5.3	
	5.3 Temperature is too high (more than 89°C)	YES - Change NTC (see page 18) NO - Go to point 6	
6 Check for leaks and check flow rate (see pages 25 and following)	6.1 Leakage at extraction system	YES - Replace TCBU (see page 22) NO - Go to point 6.2	
	6.2 Leakage at tubes connection	YES - Replace defective tube and seal NO - Go to point 6.3	
	6.3 Flow rate out of range	YES - Machine is scaled	YES - Descale machine (see page 36) NO - Replace pump
		NO - No trouble found during the check procedure.	Contact <i>Nespresso</i> Technical Correspondant for further details in order to take decision
7 Descaling process (if needed)	7.1 Machine scaled	YES - Descale machine (see page 36) NO - Go to point 8	
8 Final cleaning (see page 38)			
End of check procedure			



Safety instructions

- 
Risk of fatal electrical shock!
Mains voltage inside the coffee machine.
Disconnect the mains plug before disassembly - the coffee machine must be free of voltage.

- 
Danger of burns!
Hot parts and water under pressure inside the coffee machine (thermoblock in particular).
Let coffee machine cool down before disassembly.

General disassembly

Tool:

- Torx screwdriver for security screws, Pin-TX 10

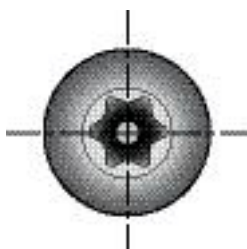

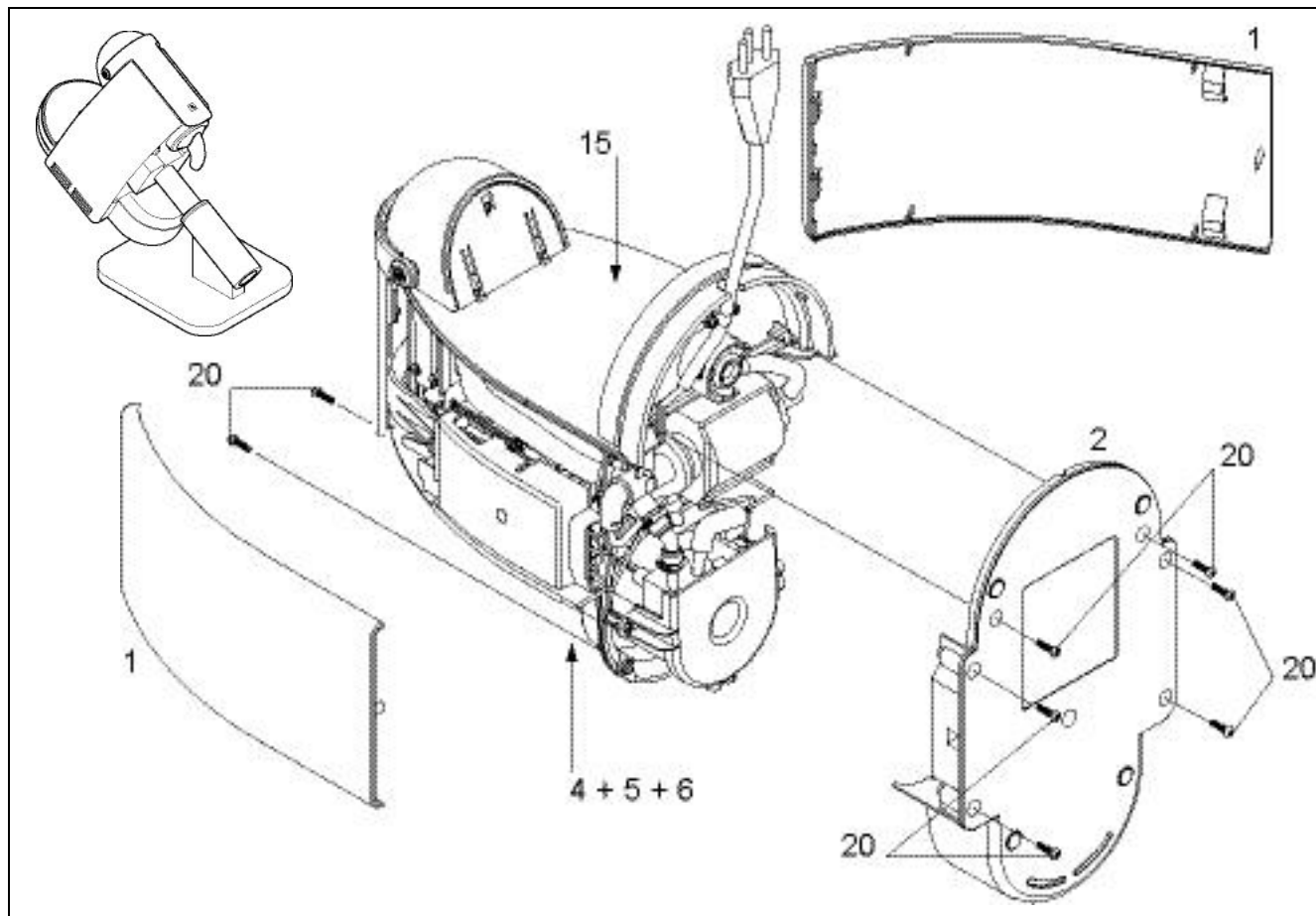


Illustration of a Pin-TX screw head

-  **Empty water system if necessary (see page 12).**



Procedure:

1. Remove water tank (15) and drip tray (5) together with drip grid (4) and capsule container (6).
2. Remove 2 screws (20) on the front side of the machine.
3. Place machine on the repairing/service holder device (see page 42).
4. Remove 6 screws (20) on the bottom of the machine.
5. Swing out and remove both side panels (1).
6. Remove lower chassis (2).


Replacing NTC

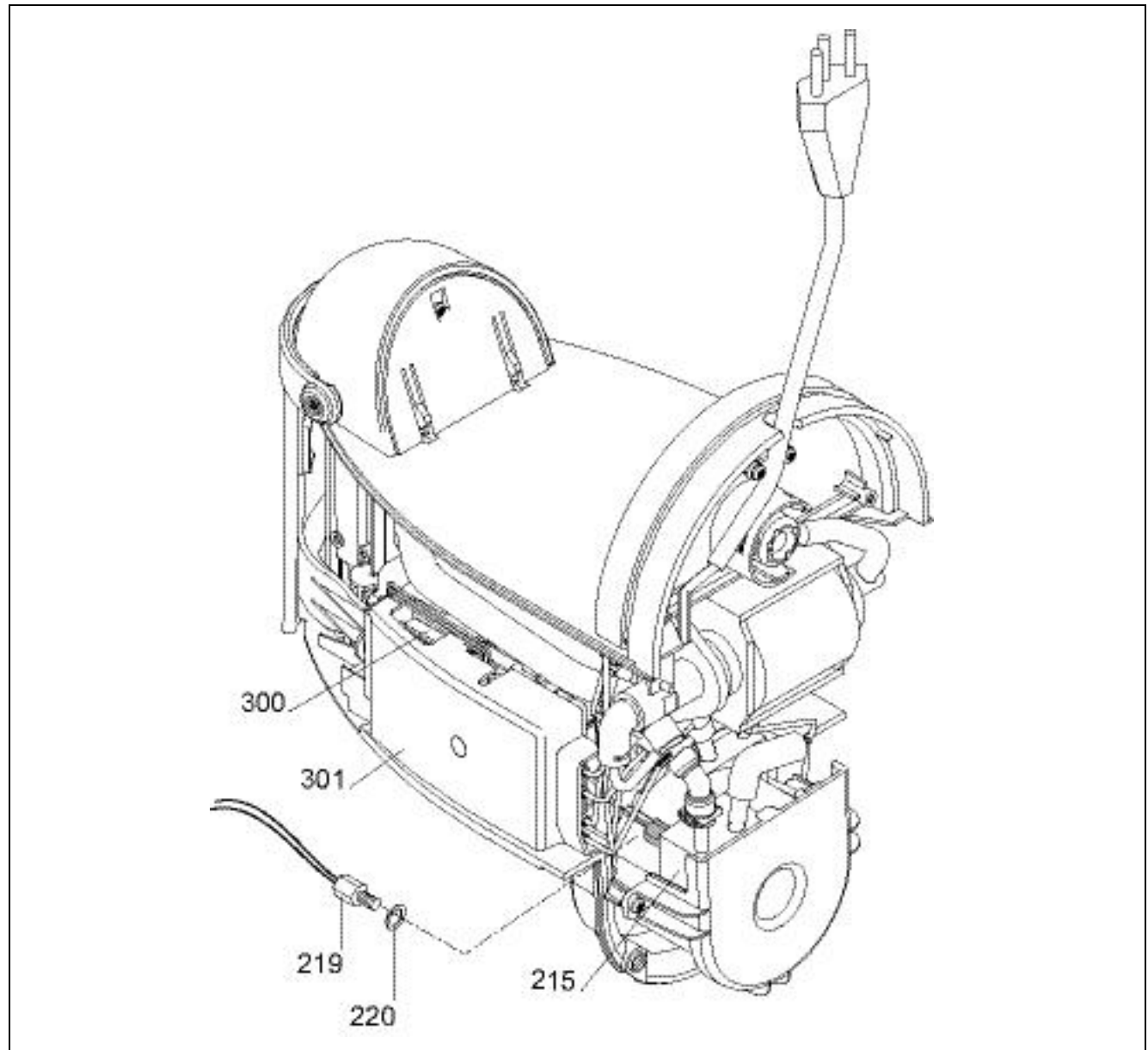
Tools:

- Torx screwdriver Pin-TX10
- Open-ended spanner 9 mm AF
- Torque wrench

Procedure:

1. Follow general disassembly (see page 17).
2. Remove PCB housing (301).
3. Unplug NTC connector from electronic control board (300).
4. Remove defective NTC temperature sensor (219) from thermoblock (215) and replace it with a new one.
5. Assemble in reverse sequence.

 **Re-use spring lock washer (220) and tighten new NTC temperature sensor (219) with torque wrench (140 - 160 Ncm).**





Replacing thermoblock

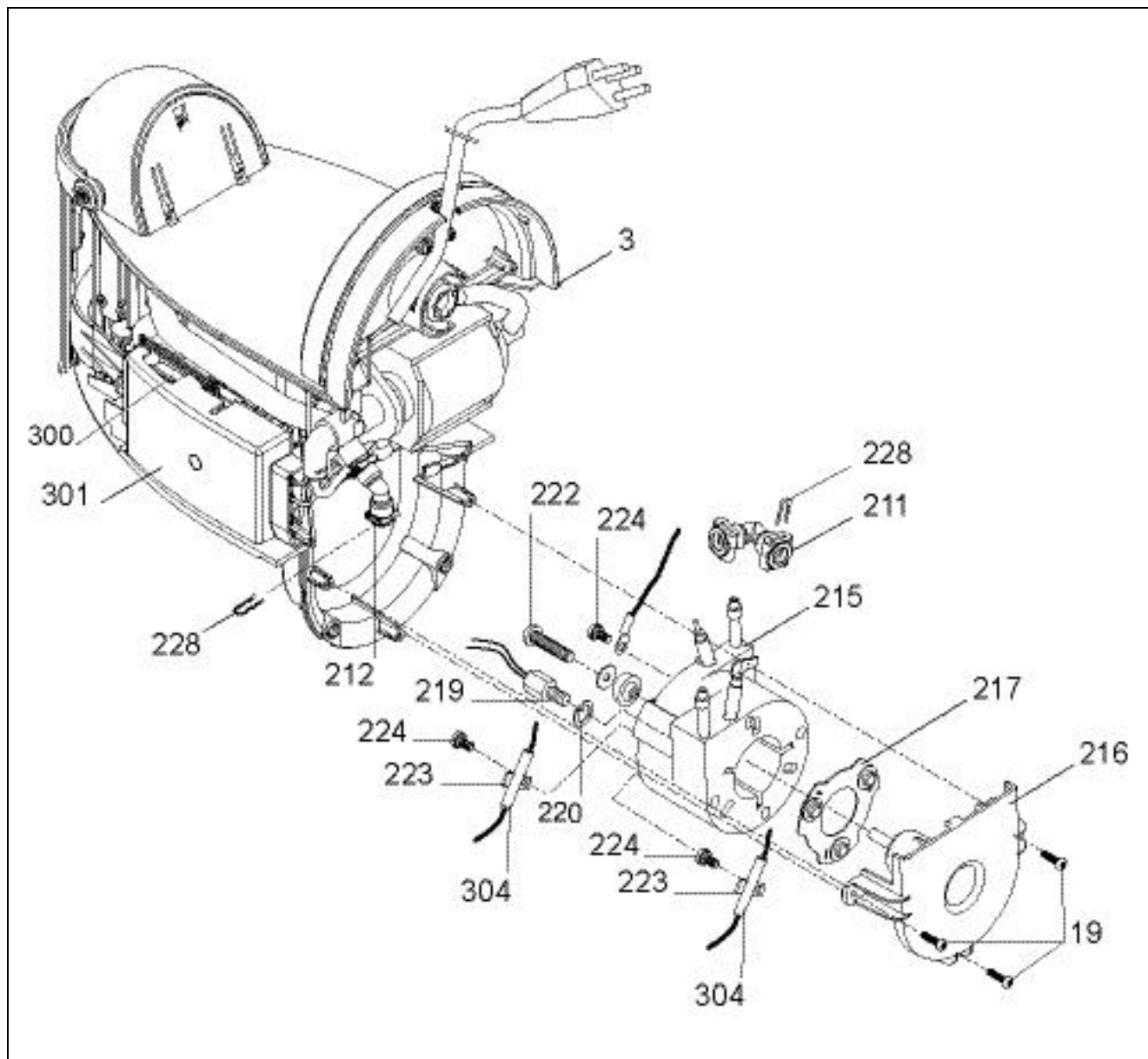
Tools:

- Torx screwdrivers Pin-TX10, TX20
- Open-ended spanner 9 mm AF
- Torque wrench

Procedure:

1. Follow general disassembly (see page 17).
2. Remove 3 screws (19) and separate thermoblock assembly from upper chassis (3).
3. Remove screw (222) and separate thermoblock from its support (216 + 217).
4. Remove 2 screws (224) and separate thermal fuses (parts of cord set 304) from thermoblock.
5. Remove PCB housing (301).
6. Unplug NTC connector from electronic control board (300).
7. Remove NTC temperature sensor (219) from thermoblock.
8. Remove clips (228) and 2 hose connectors (211+212) from thermoblock.
9. Remove ground wire and electrical connections from thermoblock.
10. Replace thermoblock (215).
11. Assemble in reverse sequence.

 Use a torque wrench (140 - 160 Ncm) to tighten NTC temperature sensor (219) with spring lock washer (220).




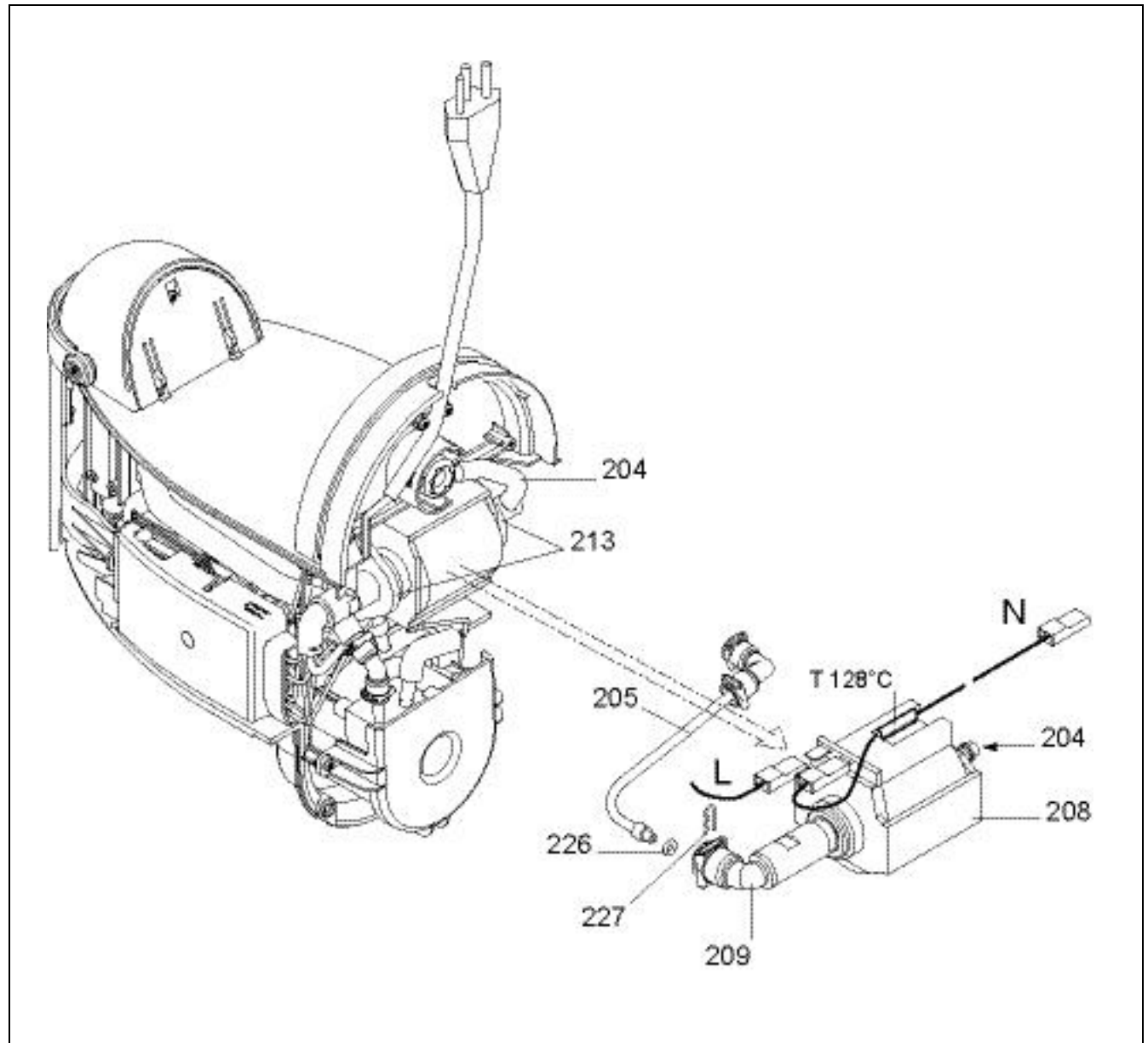
Replacing pump

Tools:

- Torx screwdriver Pin-TX10
- Long-nose pliers
- Blade screwdriver, no. 7

Procedure:

1. Follow general disassembly (see page 17).
2. Remove clip (227), hose (205) and O-ring (206).
3. Remove angled hose (204).
4. Release pump (208) first from rubber strap (213) at the side of the angled hose.
5. Remove electrical connections from pump.
6. Release pump from second rubber strap (213).
7. Replace defective pump (208).
8. Attach new pump (208) to one rubber strap with corner connector (209) first.
9. Plug in electrical connections on pump.
-  **Check for correct wiring of pump.**
10. Attach pump to second rubber strap.
11. Insert new O-ring (226), mount hose (205) and clamp (227).
12. Mount angled hose (204).



Replacing electronic control board with button prints

Tools:


- Torx screwdriver Pin-TX10

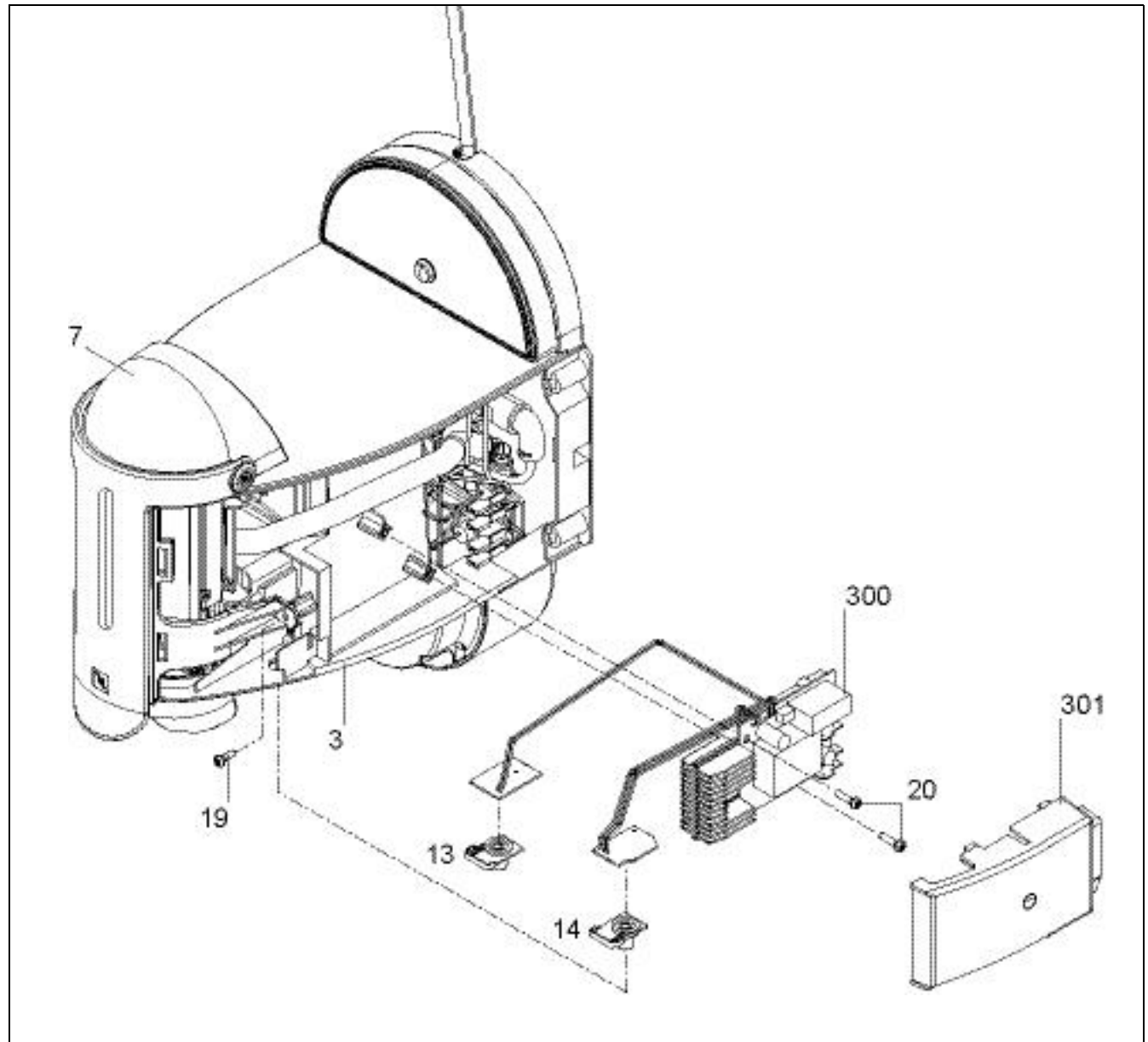
 **The service engineer must be earthed using an earthing strap!**

 **Only touch button prints with dedicated gloves to avoid oxydation.**

Procedure:

1. Follow general disassembly (see page 17).
2. Detach prints of On/Off button (13) and coffee button (14) from upper chassis (3).
3. Remove 2 screws (19) and lift cover (7) at the front side to thread-out cables with button prints.
4. Remove housing (301) from electronic control board (300).
5. Unplug NTC connector and all wires from electronic control board (300).
6. Remove 2 screws (20) and replace defect electronic control board with button prints.
7. Assemble in reverse sequence.

 **Check for correct wiring of electronic control board (see page 23).**





Replacing compact brewing unit

Tools:

- Torx screwdriver Pin-TX10
- Blade screwdriver no. 4
- Long-nose pliers
- Torque wrench

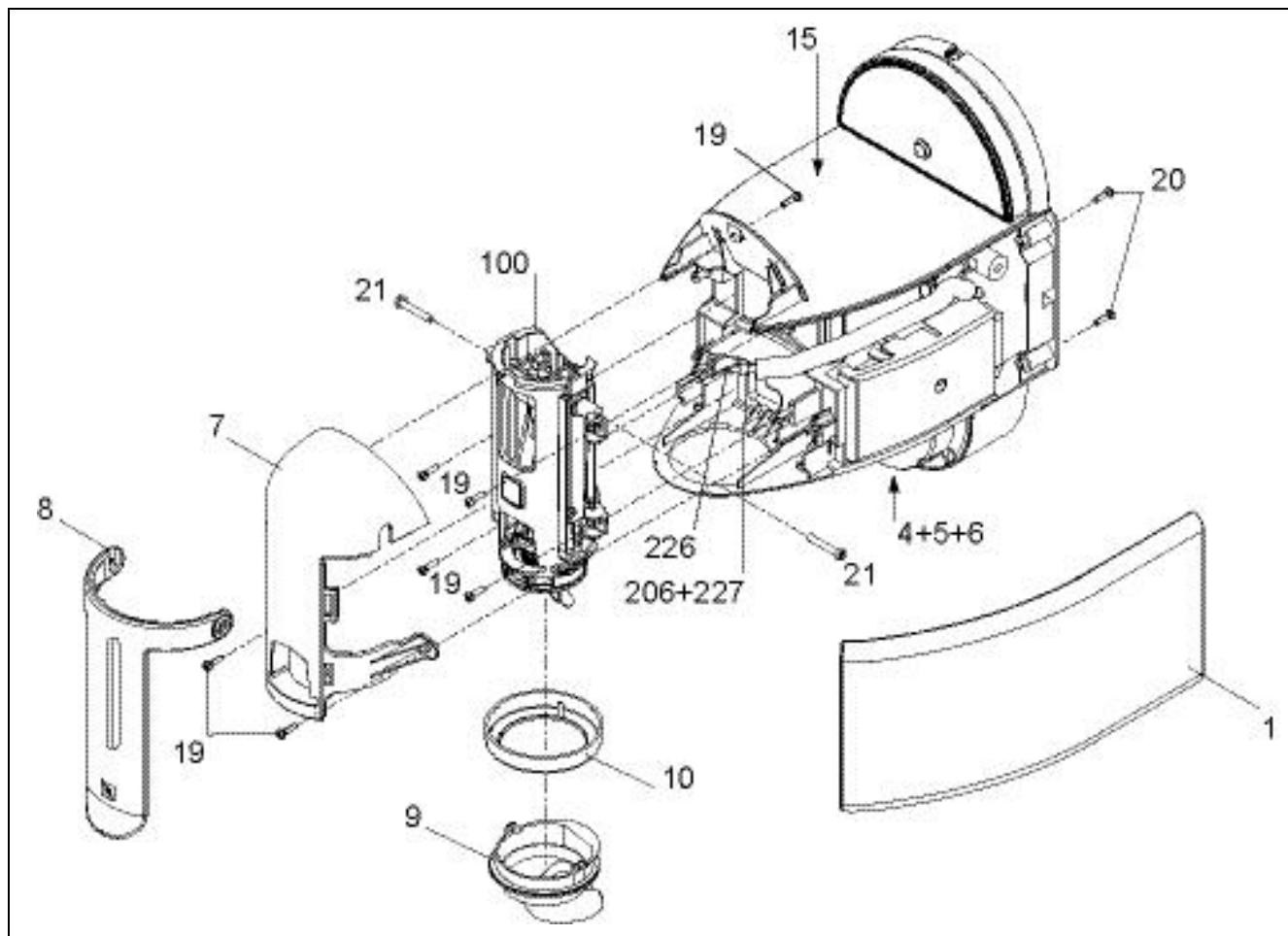
Procedure:

1. Remove water tank (15) and drip tray (5) together with drip grid (4) and capsule container (6).
2. Place machine on the repairing/service holder device (see page 42).
3. Remove 4 screws (20) on the bottom of the machine.
4. Swing out and remove both side panels (1).
5. Remove 2 screws (21) and pull off closing handle (8).
6. Remove 2 screws (19) at the front and 1 screw (19) at the back to detach cover (7).

 **C91 machine: All screws have the same length.**

D91 machine: The screw at the back is longer than those at the front.

7. Unlatch coffee outlet (9) from compact brewing unit (100) with a blade screwdriver.
8. Remove 4 screws (19) and detach compact brewing unit (100).



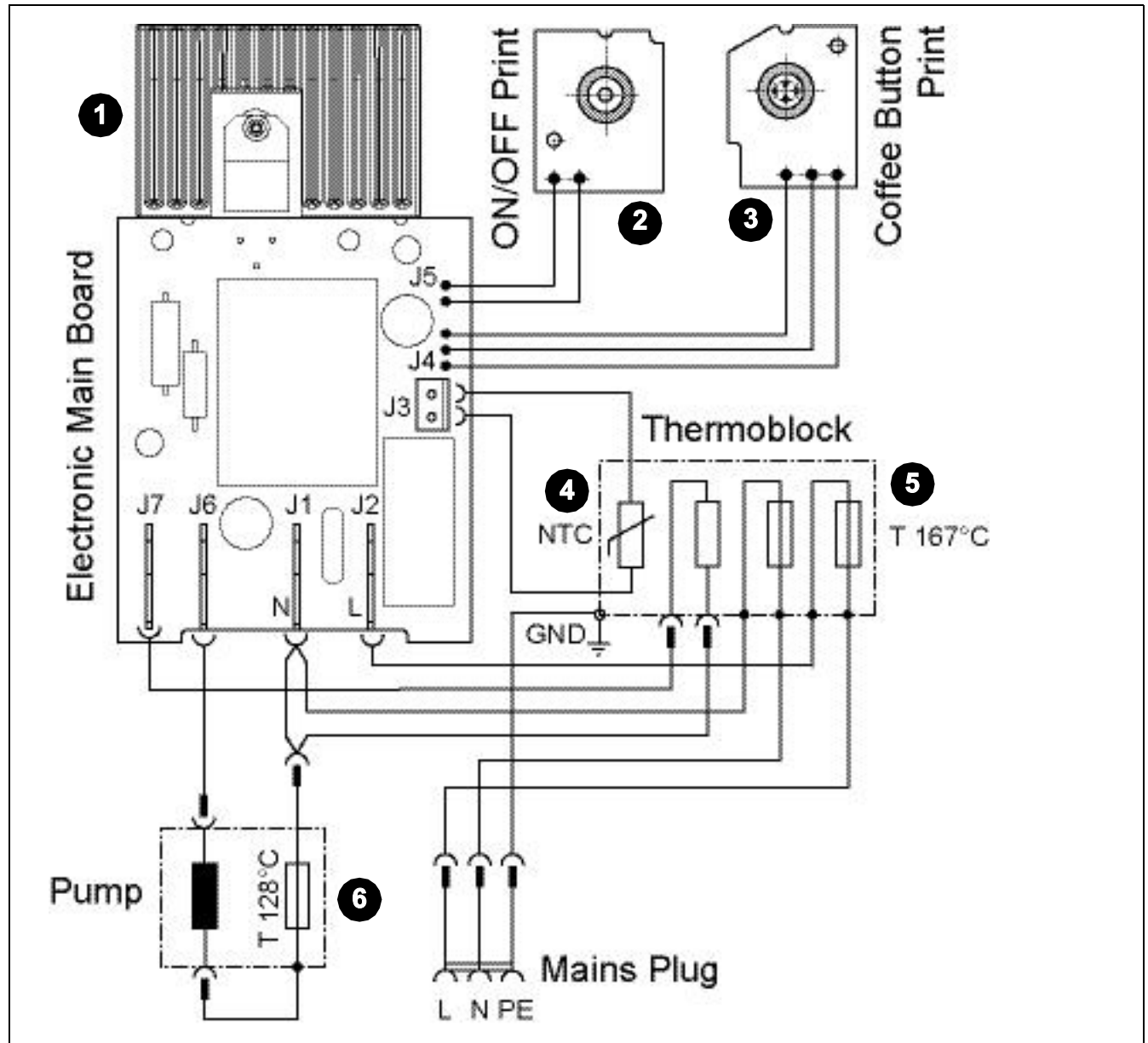
9. Remove clip (227) and hose (206) with O-ring (226) from compact brewing unit.
10. Assemble new compact brewing unit together with new coffee outlet (9) in reverse sequence. Replace O-ring (226).

 **Tighten new closing handle screws (21) with a torque of 200 Ncm.**



Wiring diagram - Europe (230V / 50 Hz)

- 1) Heat sink
- 2) Print for On/Off button
- 3) Print for coffee button with LED
- 4) NTC temperature sensor
- 5) Thermal fuses on thermoblock
- 6) Thermal fuse on pump



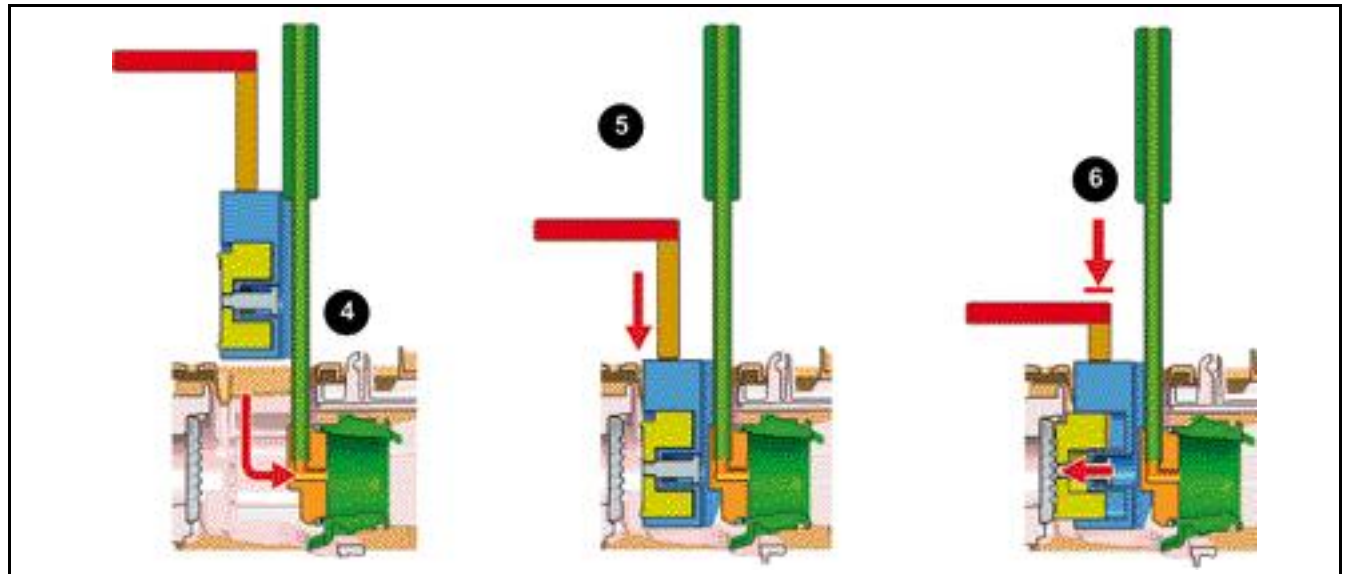
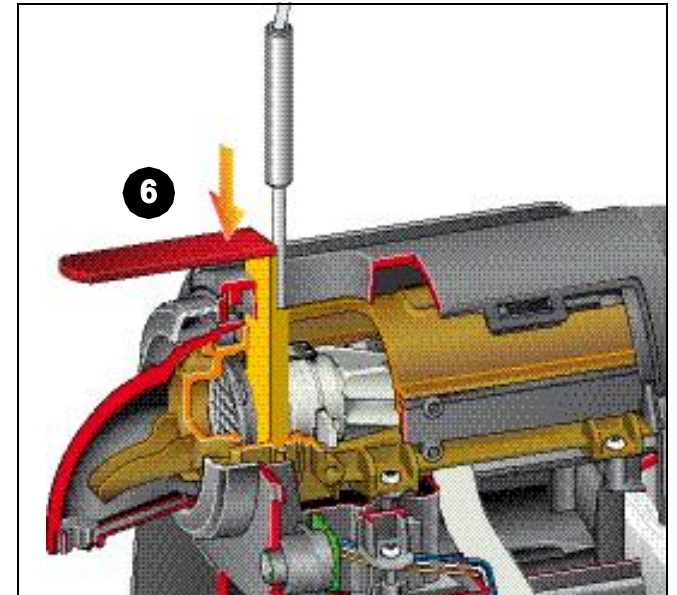
Function Tests

Measuring flow rate (1)

Procedure:

1. Fill and insert water tank.
2. Open closing handle.
3. Insert connecting unit of pressure adapter into capsule bay.
4. Push back sealing cone into capsule cage.
5. Insert fixation unit of pressure adapter into capsule bay.
6. Press down operating lever.

Continued on next page.






Measuring flow rate (2)

Procedure (continued):

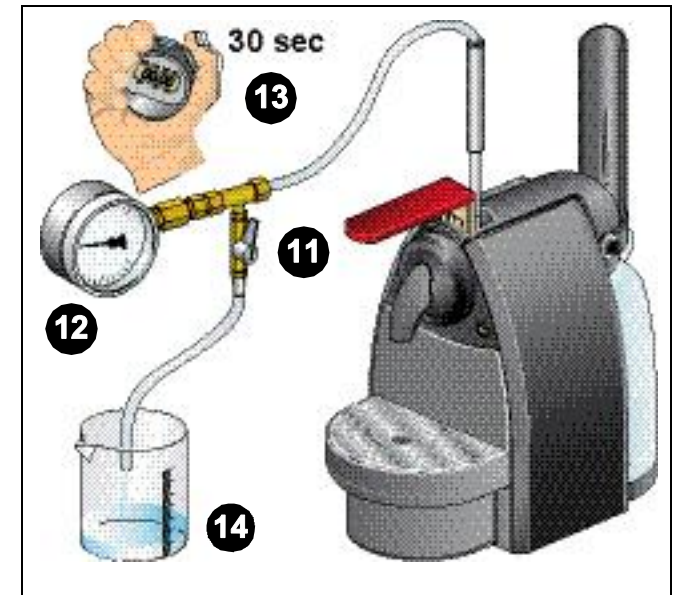
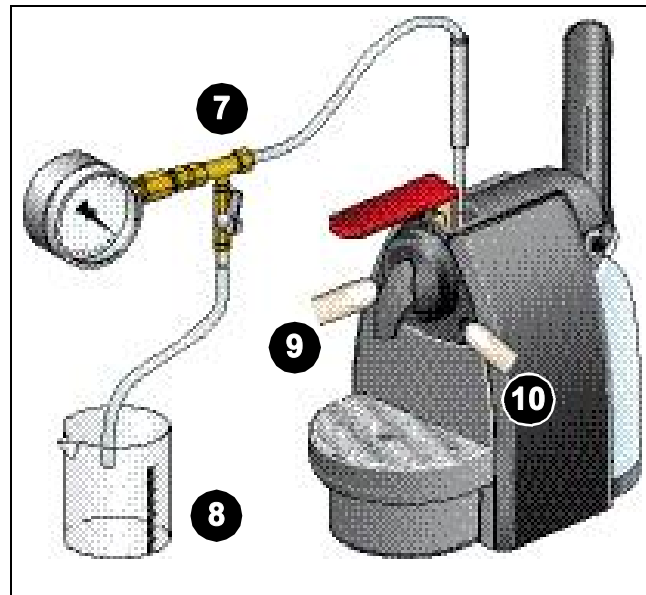
7. Connect pressure hose to pressure tester.
8. Position measuring beaker underneath exit tube of pressure tester.
9. Switch on machine.
10. Press coffee button after heating-up.
11. Open valve fully till water begins to flow.
12. Close valve slowly until 12 bar are indicated.

 **The manometer must be observed continuously and the pressure regulated using the valve if necessary. With increasing temperature the pressure also increases, if necessary readjust the pressure to 12 bar.**

13. Perform measurement for approx. 30 sec.
14. There must be at least 60 - 120 ml water in the measuring beaker.

Notice:

- With a flow of < 60 ml the pump is defective or there is a leak in the system.
- Large fluctuations in the pressure gauge readings (± 4 bar) during measurement are indicative of a defective pump.






Checking for leaks and pump pressure (1)

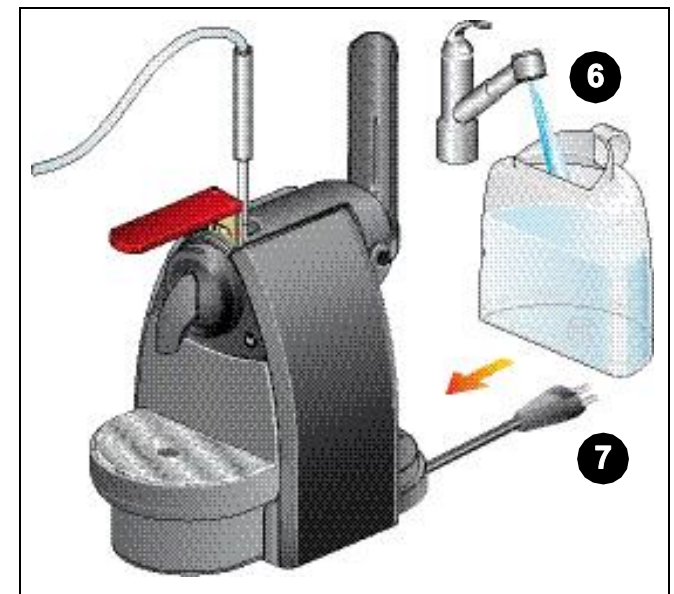
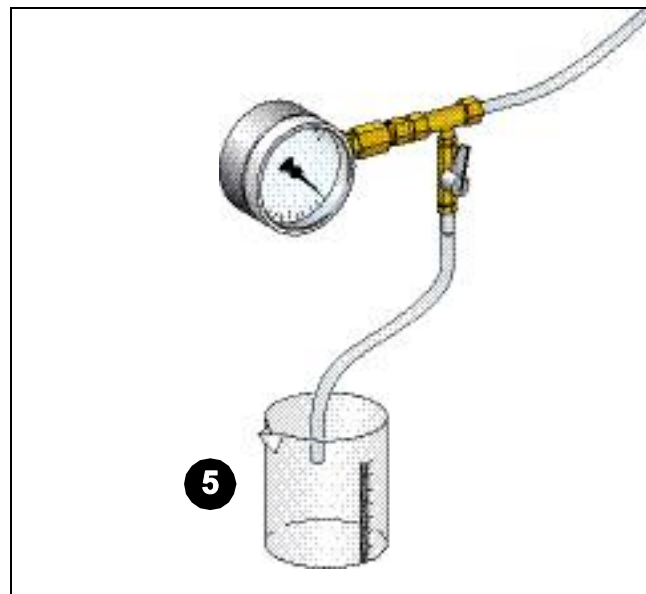
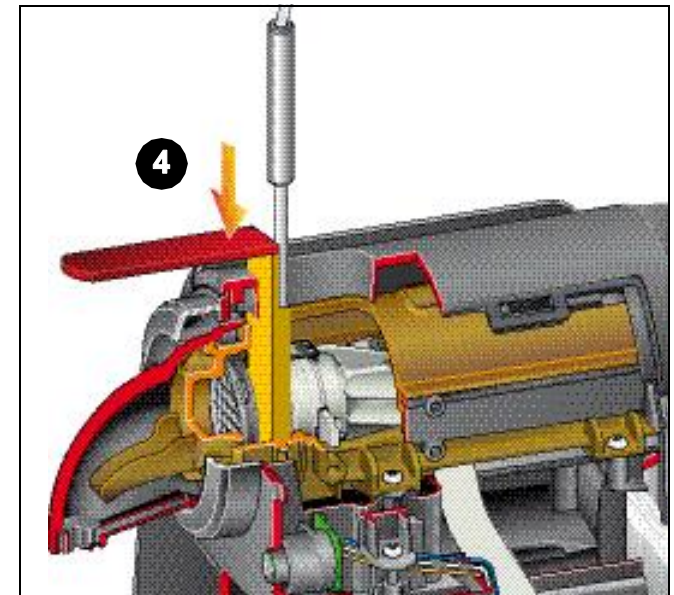
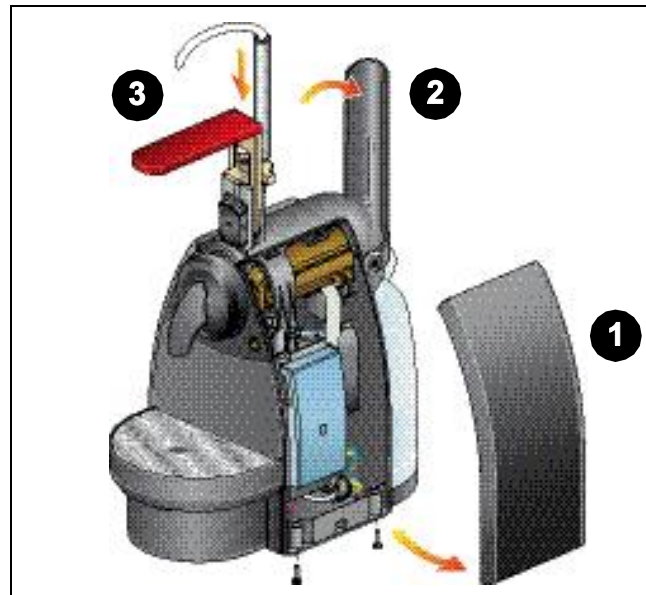
The following components are checked for leaks:

- Compact brewing unit (TCBU)
- Hose connections
- Thermoblock
- Pump

Preparation (unplug machine from mains):

1. Remove right side panel.
2. Open closing handle.
3. Insert connecting and fixation unit of pressure adapter into capsule bay (refer to page 25).
4. Press down operating lever.
5. Position pot underneath exit tube of pressure plug.
6. Fill and insert water tank.
7. Connect mains cable.

 **Dangerous voltage inside coffee machine! - Do not touch any live part while performing checks.**
Hot, pressurized parts inside coffee machine! - Do not touch any hot part while performing checks. Wear safety glasses during inspection.



Continued on next page.


Function Tests



Checking for leaks and pump pressure (2)

Procedure (continued):

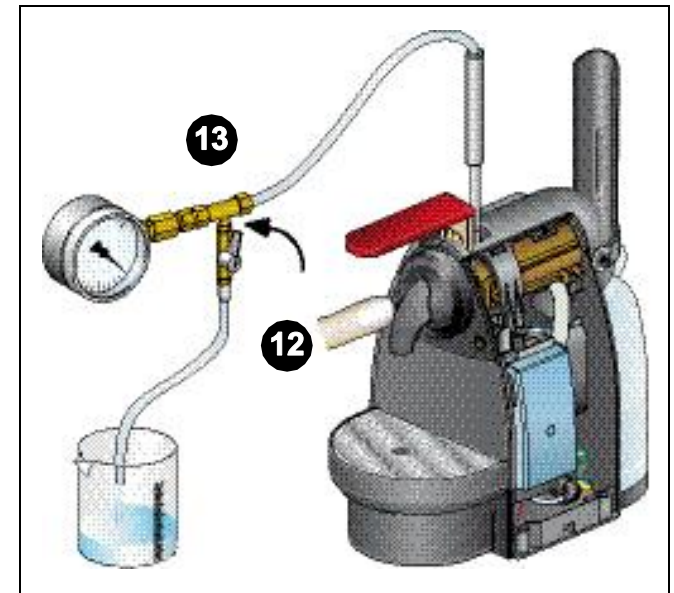
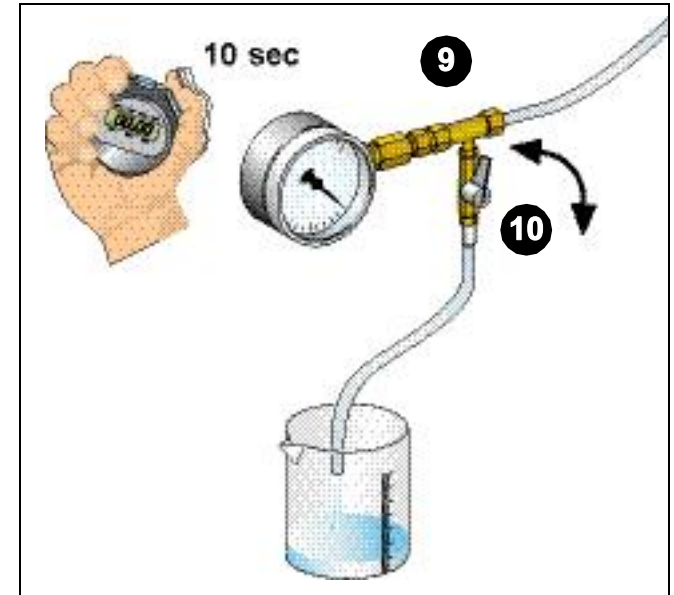
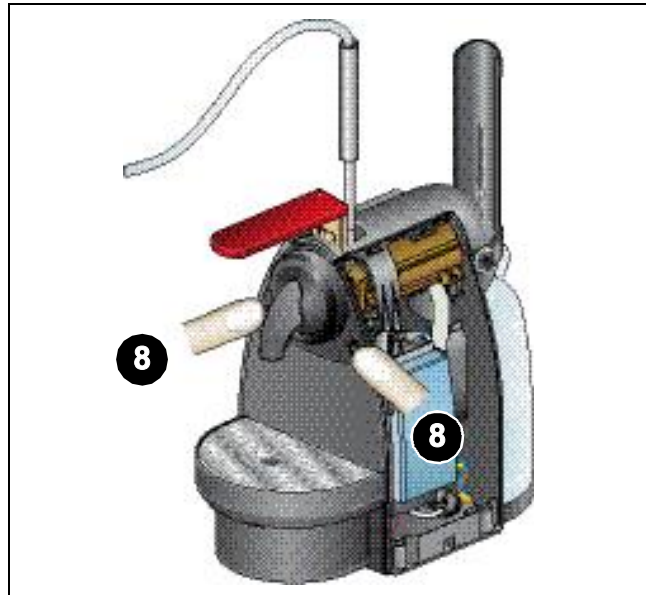
8. Switch on machine. Press coffee button after heating-up.
9. Open valve and leave water to run out for approx. 10 sec.
10. Fully close valve. The pressure will rise rapidly initially and stabilise between 16 - 19 bar (check of pump pressure).

 The pressure will rise slowly due to the temperature increase. If the pressure exceeds 23 bar, the machine has to be switched off and pressure released through the pressure valve.

11. Perform visual and acoustic checks on all pressurized connections.

 The pump must not be in operation for longer than 50 sec. without water flow.

12. Switch off machine.
13. Open valve to empty pressure gauge.





Measuring coffee temperature

Procedure:

1. Press On/Off button to switch on machine.
2. Position measuring beaker underneath coffee outlet.
3. After warming up, press coffee button.
4. Preheat coffee outlet for 10 sec. with hot water.
5. Empty measuring beaker.
6. Insert a capsule (Cosi is the most suitable).
7. Press coffee button.
8. Wait until 20 ml coffee has flown in the measuring beaker.
9. Measure the coffee temperature approx. 5 - 10 mm below the outlet opening.

 Coffee temperature should be approx. $86\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$ ($187\text{ }^{\circ}\text{F} \pm 5.4\text{ }^{\circ}\text{F}$).





Function Tests

Protective earth continuity test (1)

What coffee machine model has to be tested and when?

This test is necessary

- for class 1 equipment (three-wire power cord with protective earth)
- after a repair whenever the housing was opened and for example a general disassembly was performed.

Therefore all coffee machine models have to be tested after opening the housing, except country-specific models without a protective earth connection.

General

Legal regulation

In case of a repair/modification of the coffee machine, the repair centre is bound by law to protect the user/consumer by

- restoring the regular condition of the appliance and
- performing the respective tests according to EN/IEC 60335-1 "Safety of household and similar electrical appliances" and national regulations (e.g. DIN VDE 0701).

Description

Protective earth continuity measurements are made between the protective earth terminal of the power plug and

- the thermoblock,
- all conductive, touchable parts of the coffee machine where dangerous voltage could occur if the basic insulation was to fail.

This test assures that

- the ground (earth) connection does not have an interruption between the power plug and the thermoblock
- the permissible ground resistance is less than 0.3 Ohms (with a test current of 200 mA DC).

Test equipment

Special test equipment is needed that complies with the regulations to perform protective earth continuity measurements. Detailed requirements and tolerances must be verified by your local authorities or measurement supplier in any case.



Ask Nespresso for recommendations about test equipment.

Test report

For legal reasons a repair or test report should be prepared and filed with following information

- customer (name, address)
- type and serial number of coffee machine
- date of repair/test(s)
- performed test(s)/measuring value(s)
- used test equipment
- signature

Test sequence



Danger of electrocution!

Do not plug in the coffee machine during the protective earth continuity test.

Read and observe safety instructions in user manual of test equipment.



This test sequence is not applicable for coffee machines with two-wire power cords (without ground pin).

Continued on next page.



Protective earth continuity test (2)

Test sequence (continued):

1. Connect black measuring cable to ground pin of power plug with an alligator clip (example shown: Swiss power plug).
2. Switch on test equipment and select protective earth continuity test.

 **Symbolic illustration of test equipment.**

3. Touch thermoblock through one of the marked holes with tip of red test probe.
4. Press "measure" button and read off displayed resistance.

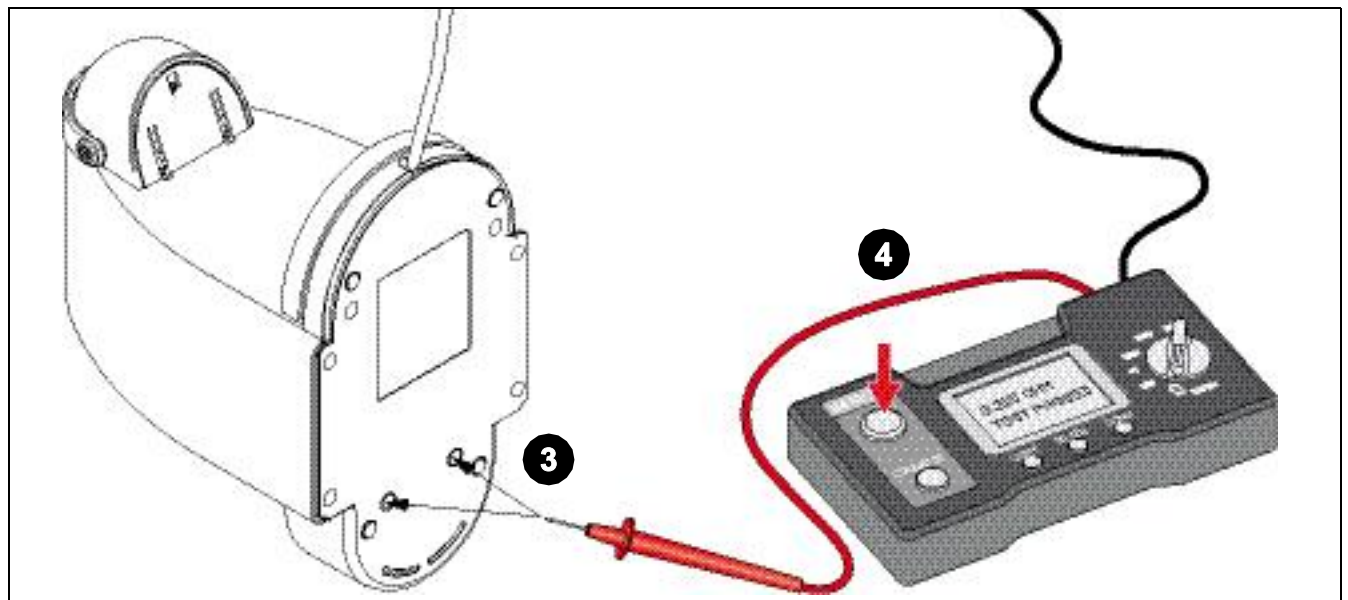
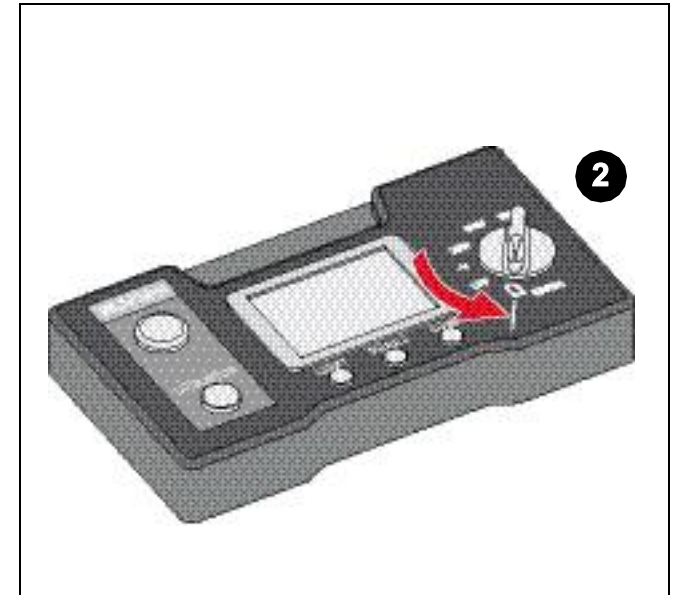
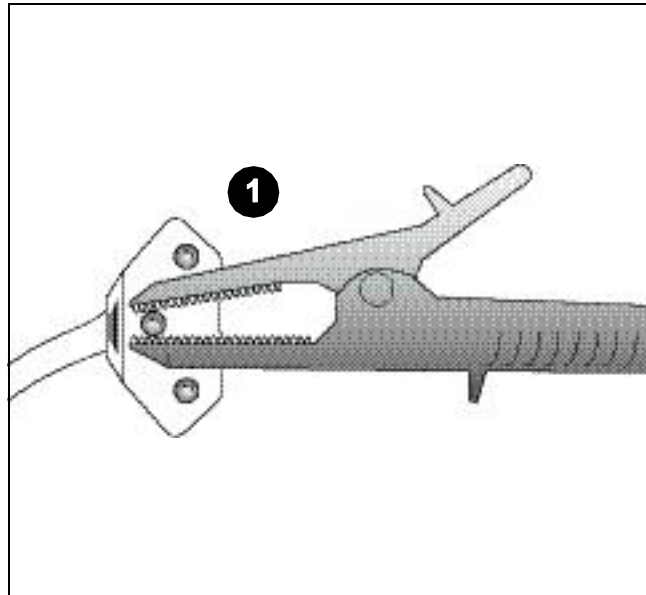
 **The resistance must be lower than 0.3 Ohm.**

5. Fill in measured value in a test report.

 **Proceed with protective insulation test before reassembling the housing of the coffee machine.**

What to do if the protective earth continuity test fails

Check ground wire connection on thermoblock (refer to wiring diagrams on page 23).





Function Tests

Protective insulation test (1)

 Perform the protective earth continuity test at first, if it is mandatory.

What is the protective insulation test about?

This test is necessary

- for class 1 and 2 equipment (with/without protective earth),
- after a repair whenever the housing was opened and for example a general disassembly was performed.

General

Legal regulation

In case of a repair/modification of the coffee machine, the repair centre is bound by law to protect the user/consumer by

- restoring the regular condition of the appliance and
- performing the respective tests according to EN/IEC 60335-1 "Safety of household and similar electrical appliances" and national regulations (e.g. DIN VDE 0701).

Description

The insulation test

- assures that wiring and insulation of the coffee machine fulfill the normative

requirements after a repair,

- rates the insulation capability of the coffee machine,
- is a very dangerous test because of a high test voltage (500 V DC).

For the insulation test, phase and neutral wire are shunted at the power plug. Then a test voltage is applied between phase/neutral and selected parts of the coffee machine.

Test equipment

Special test equipment is needed that complies with the regulations to perform insulation and withstanding voltage tests. Detailed requirements and tolerances must be verified with your local authorities or measurement supplier in any case.

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.



Ask *Nespresso* for recommendations about test equipment.

Test report

For legal reasons a repair or test report should be prepared and filed with following information

- customer (name, address)
- type and serial number of coffee machine
- date of repair/test(s)
- performed test(s)/measuring value(s), test points
- used test equipment
- signature

Test sequence



Danger of electrical shock/short circuit!

- Do not plug in the coffee machine during insulation test.



Danger of electrical shock!

- Do not touch tip of test probes.
- Do not touch metallic parts of coffee machine during test.
- Read and observe safety instructions in user manual of test equipment.

Continued on next page.



Protective insulation test (2)

Test sequence (continued):

1. Connect the phase and neutral pin of the power plug together with a test adapter (procured by the repair centre).

 **A Swiss power plug is shown here as an example.**

2. Connect the black measuring cable to the test adapter (see image).

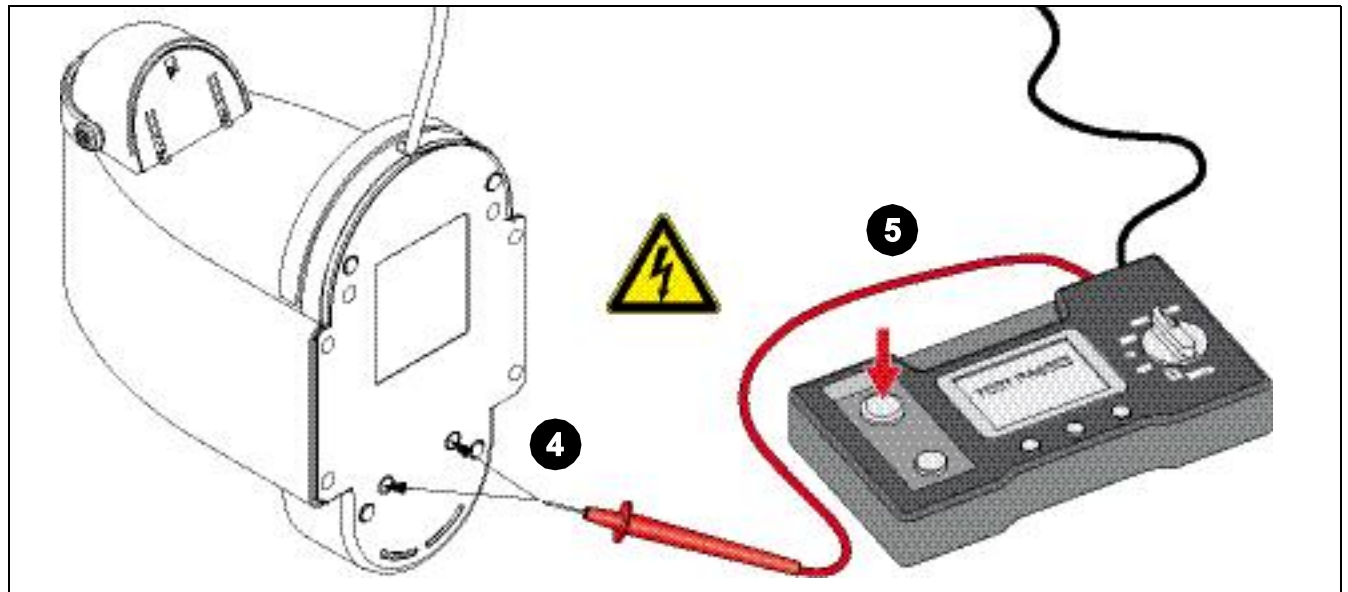
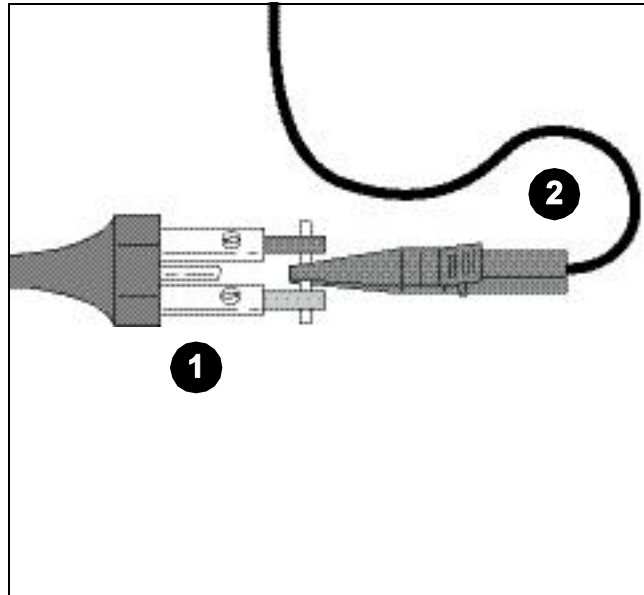
 **Use a short circuit plug or special alligator clips etc. as substitute for this test adapter.**

3. Switch on test equipment and select an insulation test voltage of 500 V DC.

 **Symbolic illustration of test equipment.**

4. Touch thermoblock through one of the marked holes with tip of red test probe.
5. Press "measure" button and read off displayed insulation resistance or test result.

Continued on next page.





Protective insulation test (3)

Test sequence (continued):

 The insulation resistance must be higher than 300 kOhm (300,000 Ohm). Some test equipment displays test passed or failed instead of the insulation resistance.

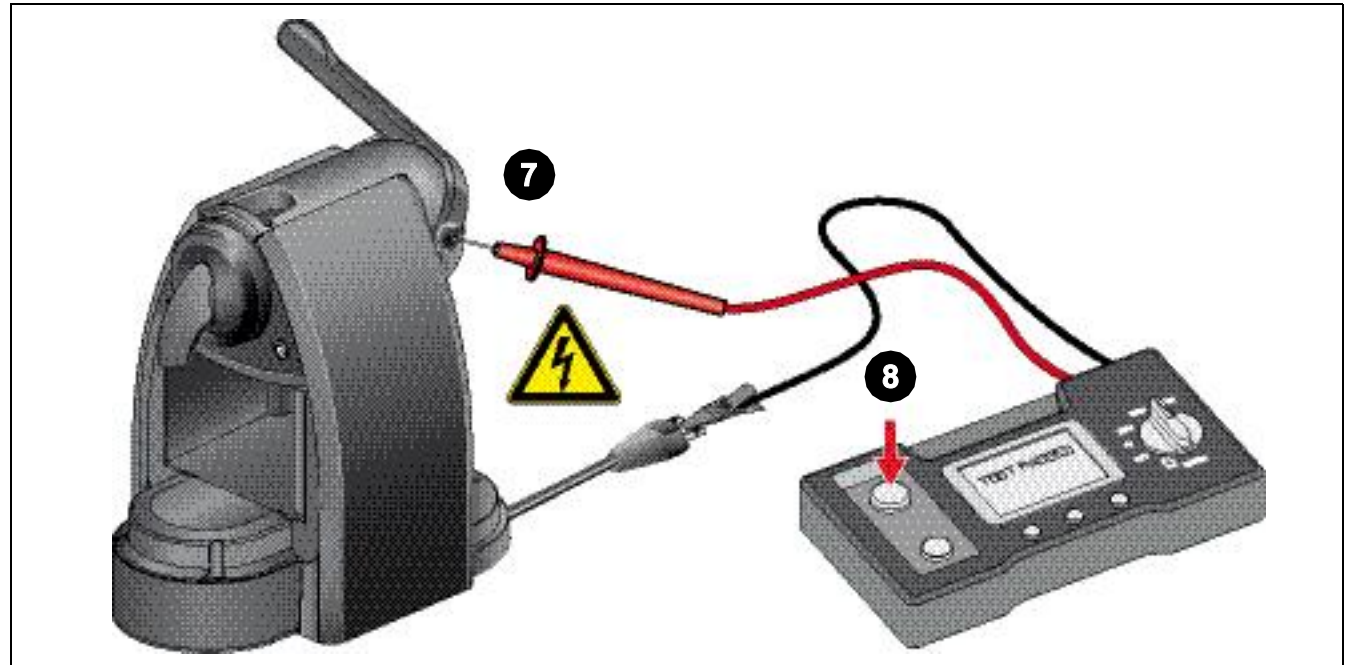
6. Fill in measured value in a test report.
7. Touch closing handle screw with red test probe.

 Do not scratch surface of closing handle with probe tip.

8. Press "measure" button.
9. Read off displayed insulation resistance or test result.

 The insulation resistance must be higher than 300 kOhm (300,000 Ohm).

10. Fill in measured value in a test report.
11. Switch off test equipment.
12. Short red with black test probe to make sure that test voltage is discharged.



What to do if the insulation test fails


 **Risk of damage!**
A sparkover can damage the electronic control board and sensors etc.

Assume that the coffee machine is defect after a failed insulation test.

Check wiring and locate fault.

After fault clearance proceed with troubleshooting check list (see page 14).

Descaling (1)

 **Only use Nespresso decalcifier - never vinegar!**
Decalcifier is aggressive to surfaces. Immediately clean drops of descaling solution.

Preparation:

1. Switch off machine.
2. Check that there is no capsule in inlet and close handle.
3. Remove drip grid. Empty drip tray and capsule container.
4. Re-insert drip tray and place a pot on it.

 **Carefully read safety instructions on decalcifier package.**

5. Fill measuring jug with 0.5 l fresh, potable water and pour 0.1 l descaling fluid in it.
6. Fill descaling solution in water tank. Re-insert water tank.
7. Press On/Off button and coffee button simultaneously for at least 3 seconds to switch on machine and start descaling mode (fast blinking coffee button).

Descaling:

8. Press coffee button to start pump.
9. Let entire descaling solution pass through coffee outlet.





Descaling (2)

- 10. Fill water tank again with descaling solution from pot.
- 11. Repeat descaling procedure one more time: Press coffee button and let entire descaling solution run through.

Rinsing:

- 12. Empty pot.
- 13. Rinse water tank thoroughly and fill it with fresh water.
- 14. Place pot on drip tray.
- 15. Press coffee button to start pump. Let complete content of water tank run through coffee outlet.
- 16. Switch off machine. Descaling is completed.
- 17. Remove and empty pot.
- 18. Clean machine.






Maintenance

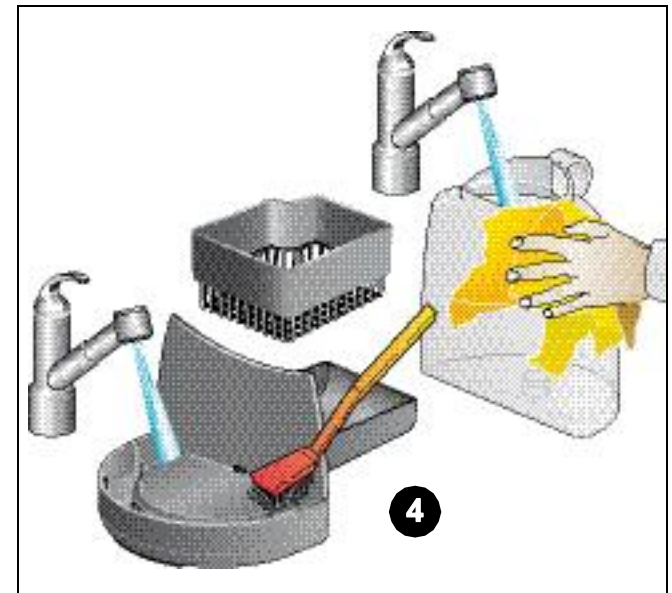
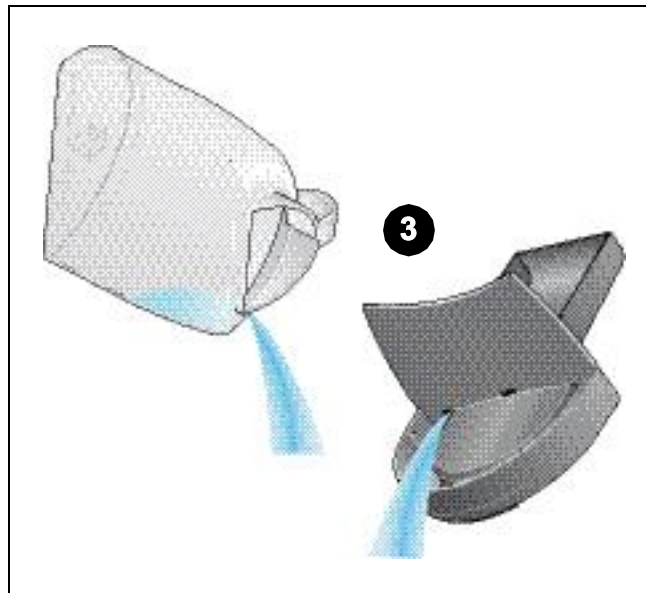
Daily care and final cleaning

 **Risk of fatal electrical shock and fire!**
Never clean wet or immerse plug, cord or appliance in any fluid.
Unplug appliance and let it cool down to avoid burns.

 **Never use hard cleaning brushes and/or cleaning agents that contain aggressive or chemical components resp. solvents.**
Do not put any part in a dishwasher.
Preferably use only a damp cloth or sponge and a mild cleaning agent if necessary.
Do not use a brush to clean the water tank - it could be scratched.

Procedure:

1. Eject capsule.
2. Empty capsule container.
3. Empty water tank and drip tray.
4. Clean water tank and drip tray.





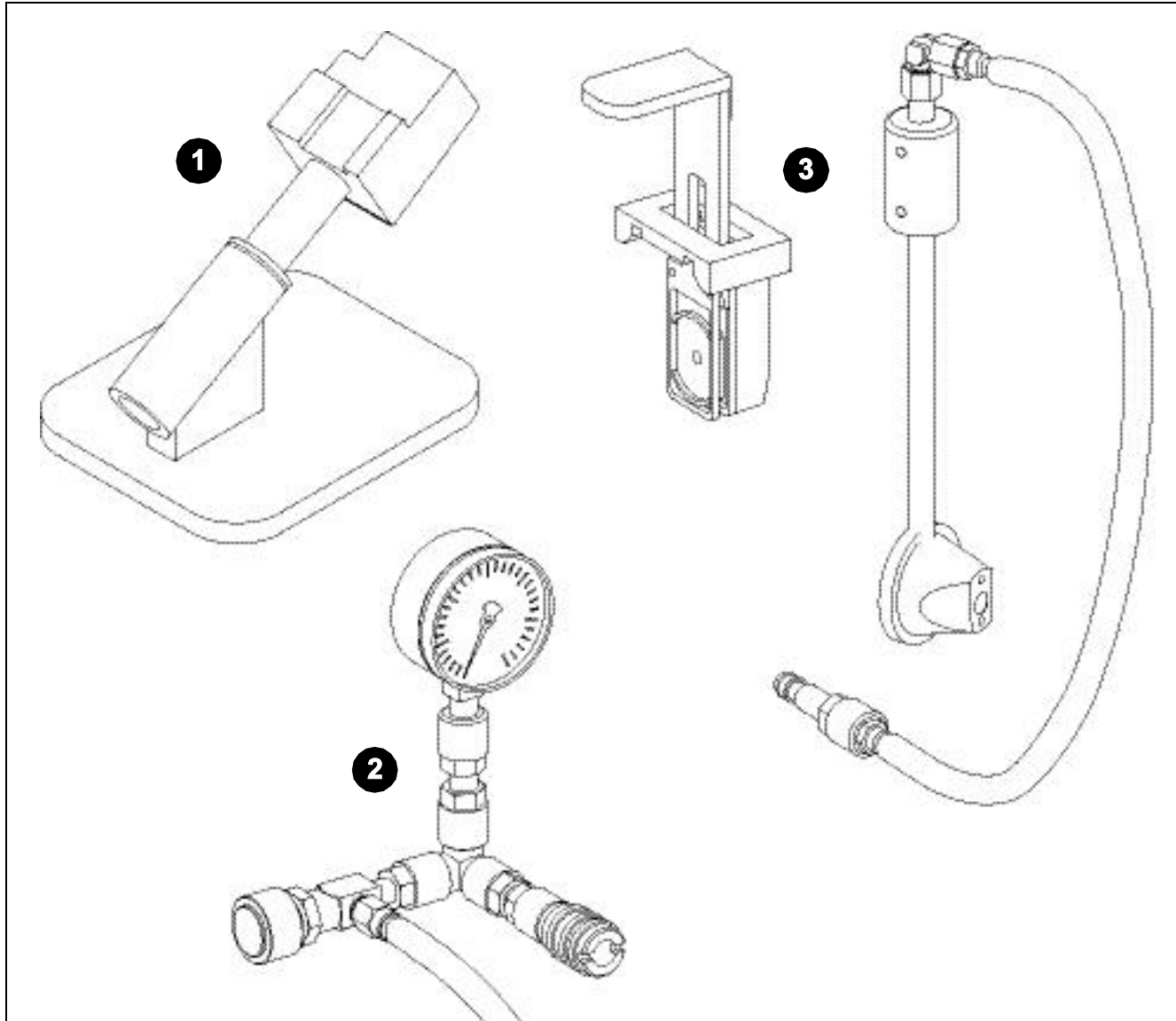
Procedure (continued):

- 5) Fill tank with fresh water.
- 6) Reassemble coffee machine.
- 7) Press On/Off button.
Wait till coffee button stops blinking.
- 8) Press coffee button and rinse coffee outlet for 10 sec.
9. Clean coffee machine.





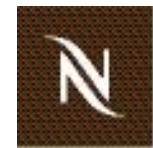
Repair accessories



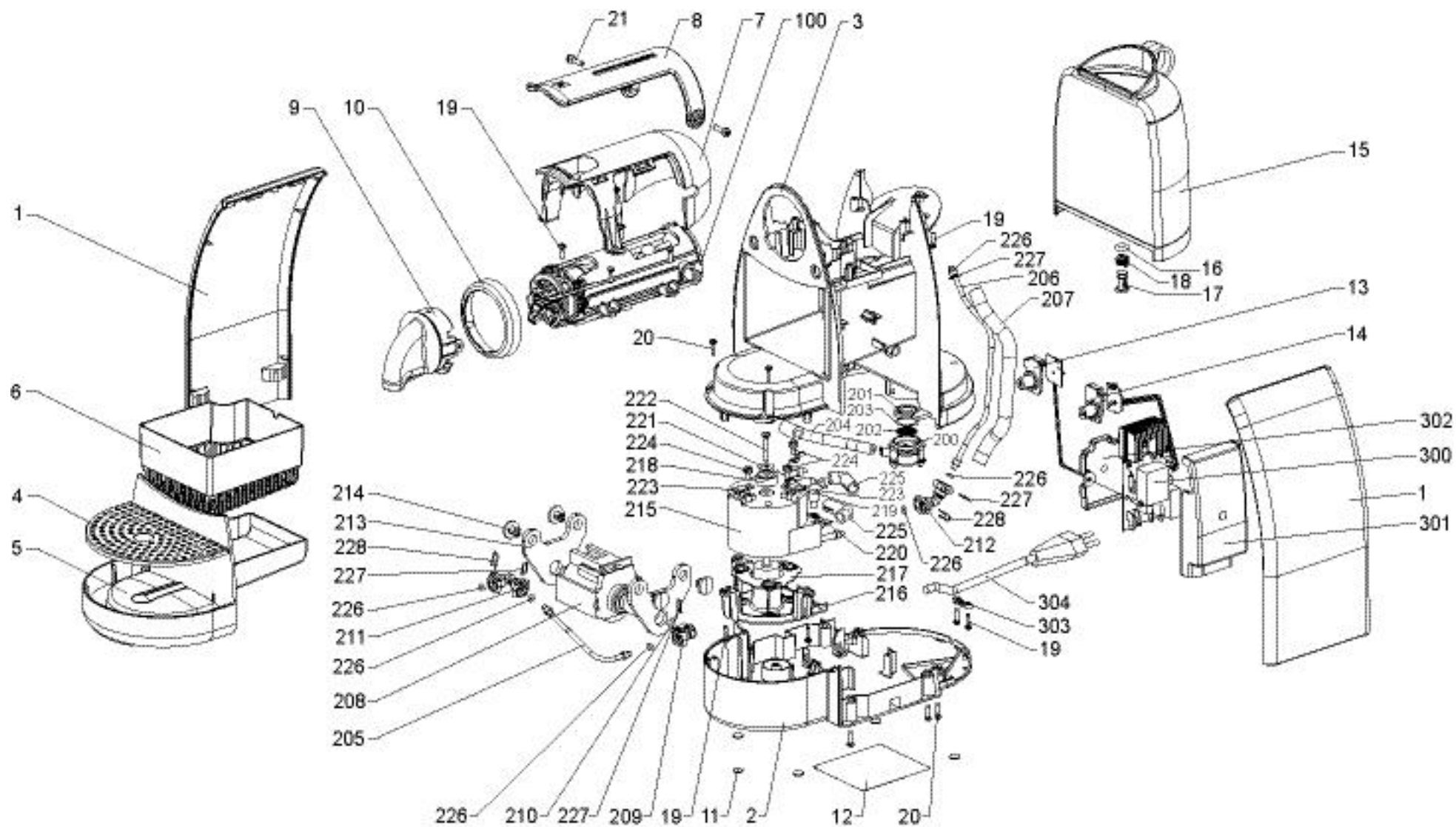
Pos.	EFR No.	Component
1	*	Repairing/service holder device (for C91 or D91)
2	42213	Manometer
3	60460	Pressure adapter G4
-	64373	Spare part seal G4

* Repair accessories only available at *Nespresso*. Please ask your *Nespresso* technical contact person.

Manometer and pressure adapter are available at Eugster Frismag AG



Spare parts C91





Pos.	WIK P/N	Part Description
15+16+17+18	9310132000	C91 Water tank A
15+16+17+18	9310134800	D91 Water tank B
6	9310133700	C91 Capsule Container A
6	9310135300	D91 Capsule Container B
4	9310154900	C91 Drip Grid A
4	9310155000	D91 Drip Grid B
5	9310134600	C91 Drip Tray A <i>Nespresso</i> printed
5	9310135600	D91 Drip Tray B <i>Nespresso</i> printed
5	9310161000	D91 Drip Tray B DeLonghi printed
5	9310161100	D91 Drip Tray B Magimix printed
5	9310161200	D91 Drip Tray B Koenig printed
5	9310161300	C91 Drip Tray A Turmix printed
5	9310161400	C91 Drip Tray A Krups printed
8	9310140500	C91/D91 Closing handle
21	5030039900	C91/D91 Torx head screw ST3.9x17
7	9310133500	C91 Cover A
7	9310134700	D91 Cover B
100	9310132100	C91/D91 TCBU assembly
9+10	9310133000	C91 Coffee outlet assembly
9+10	9310134900	D91 Coffee outlet B assembly
3	9310133600	C91 Upper chassis A
3	9310135000	D91 Upper chassis B
1	9310131800	C91 Side panel A
1	9310135100	D91 Side panel B
2+11	9310131900	C91 Lower chassis A-elastic stop rubber
2+11	9310135200	D91 Lower chassis B-elastic stop rubber
226	5040037700	C91/D91 O-ring (3,5x2)
206	9310132400	C91/D91 Hose assembly 225mm (TB/TCBU)
205	9310132300	C91/D91 Hose assembly 120mm (Pump/TB)
207	5040021800	C91/D91 Cover Hose (TB/TCBU)
227	4010006300	C91/D91 Connector clip 4mm
228	4010006200	C91/D91 Connector clip 5mm

Pos.	WIK P/N	Part Description
212	9310133800	C91/D91 Hose connector 55°
13	5040023600	C91 On/Off button silicon
13	5040044000	D91 On/Off button silicon
14	5040023300	C91 Coffee button silicon
14	5040044100	D91 Coffee button silicon
300	1350009200	C91/D91 PCB assembly 230V
301	9310133900	C91/D91 PCB housing
302	9310134000	C91/D91 PCB base
225	5040038600	C91/D91 Isolation spout angular
215+216+217+ 218+221+222+ [2x(223+224)]+ [2x(wire+fuse)]	9310134100	C91/D91 Thermoblock assembly 230V
219	1190000700	C91/D91 NTC
220	5010026500	C91/D91 Spring lock washer for NTC
304	2010069000	C91/D91 Cordset VDE plug
200+201+202+ 203+204	9310132200	C91/D91 Water tank connector assembly
214	9310134200	C91/D91 Pump fixation
208+209+ 210+213+ Fuse 128°C	9310133100	C91/D91 Pump 230V assembly-fuse128°C -connec
211	9310134300	C91/D91 Hose connector 90° (TB/pump)
	8020182200	C91 Color box C91 <i>Nespresso</i>
	8020182600	D91 Color box D91 <i>Nespresso</i>
	8990055500	C91 Master carton
	8990055500	D91 Master carton
	8100117801	C91 Instruction for user C91 <i>Nespresso</i>
	8100118201	D91 Instruction for user D91 <i>Nespresso</i>
	8050004300	C91 Polyfoam tray left
	8050004400	C91 Polyfoam tray right
	8050004300	D91 Polyfoam tray left
	8050004400	D91 Polyfoam tray right

