



Philips Consumer Lifestyle

Service Manual

Product information

Safety

- This product meets the requirements regarding interference suppression on radio and TV.
- After the product has been repaired, it should function properly and has to meet the safety requirements as officially laid down at this moment.

Technical information

- Voltage : 220 - 240 V
- Frequency : 50 Hz
- Power consumption : 2450 W
 - Boiler : 1450 W
 - Thermo block : 1200 W
- Color setting : Deep black
- Dimensions (WxDxH)
 - Appliance : 210 x 315 x 290 mm
 - F-Box : 285 x 390 x 334 mm
- Materials
 - Housing : PA, PP, ABS
 - Spout, collector : PP
 - Water container : PP
 - Drip tray : ABS
- Stand-by power consumption : < 0,5 W
- Brewing pressure : < 1,6 Bar
- Steam pressure : < 1,0 Bar
- Water container capacity : 1,0 L
- Auto shut-off time : 15 min
- Volumes and recipes, see table:

Functions :

- Coffee boost technology
- Serves two (milk/coffee) drinks at a time
- Programmable recipes (only for HD6574)

• Consumer Replaceable Parts

- CRP100/01 Podholder 1-cup, Black
- HD5015/01 Podholder 2-cup, Black
- CRP126/01 Collector, Deep black
- CP9014/01 Water container, Sepia Grey
- CP9018/01 Drip tray, Deep black
- CP9017/01 Drip tray cover, Deep black
- CP0599/01 Milk unit, Chrome/Deep black
- CP0221/01 Coffee spout assy, Deep black
- CP0600/01 Milk hose assy, Deep black
- CP0598/01 Milk container assy + Hose assy, Black

Optional (accessories)

- No specific issues

General Coffee and Milk specifications:

In - cup volume (in mL)	Black coffee		Milk recipe		
	Normal	Strong	Cappuccino	Latte Macchiato	Café Latte
General WEU version	122 *	60 *	160 *	220 *	190 *
France specific version	100 *	60 *			

* Influenced by personal coffee preference, to be programmed by the consumer plus or minus 37% of the indicated values.

Temperature indication (in °C) **	Black coffee		Milk recipe		
			Cappuccino	Latte Macchiato	Café Latte
General WEU	> 74	> 72	> 69	> 63	> 67
France Specific					

Measurement specifications:

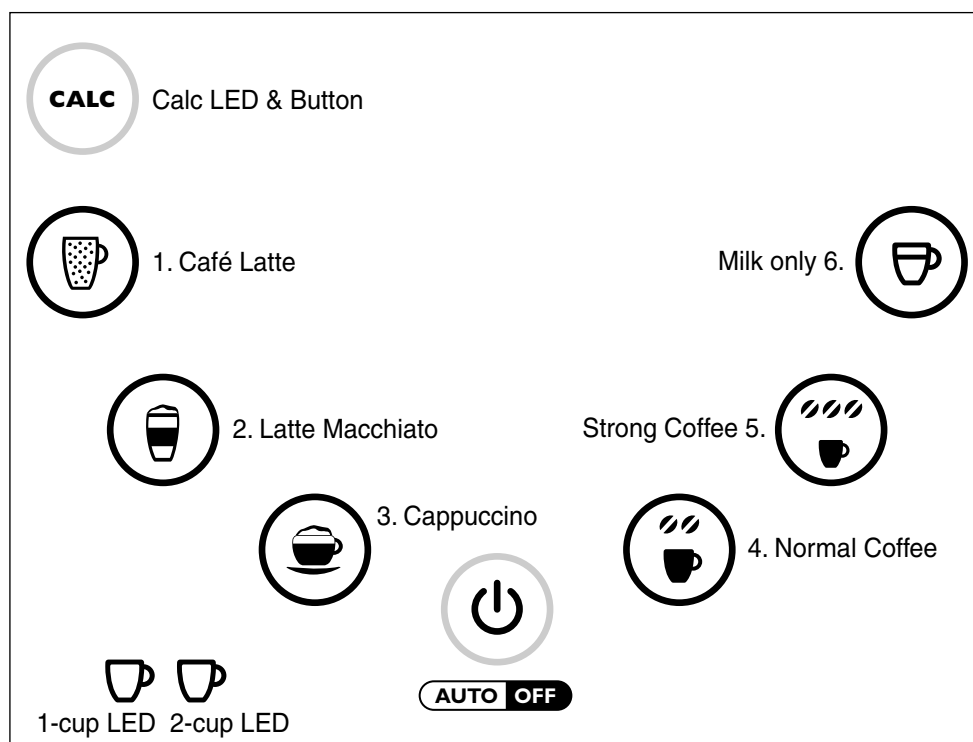
Water spec ** (without pod, in mL)	Black coffee		Milk recipe		
	General WEU	France Specific	Coffee (water)	Milk (water)	Total (water)
1 - cup (with 1 - cup podholder)	133 ± 10	111 ± 10	72 ± 10	68 ± 10	140 ± 10
2 - cups (with 2 - cups podholder)	2 x 133 ± 10	2 x 111 ± 10	2 x 72 ± 10	2 x 68 ± 10	2 x 140 ± 10

Temperature indication water ** (in °C)	General WEU	France Specific
	> 74	> 72

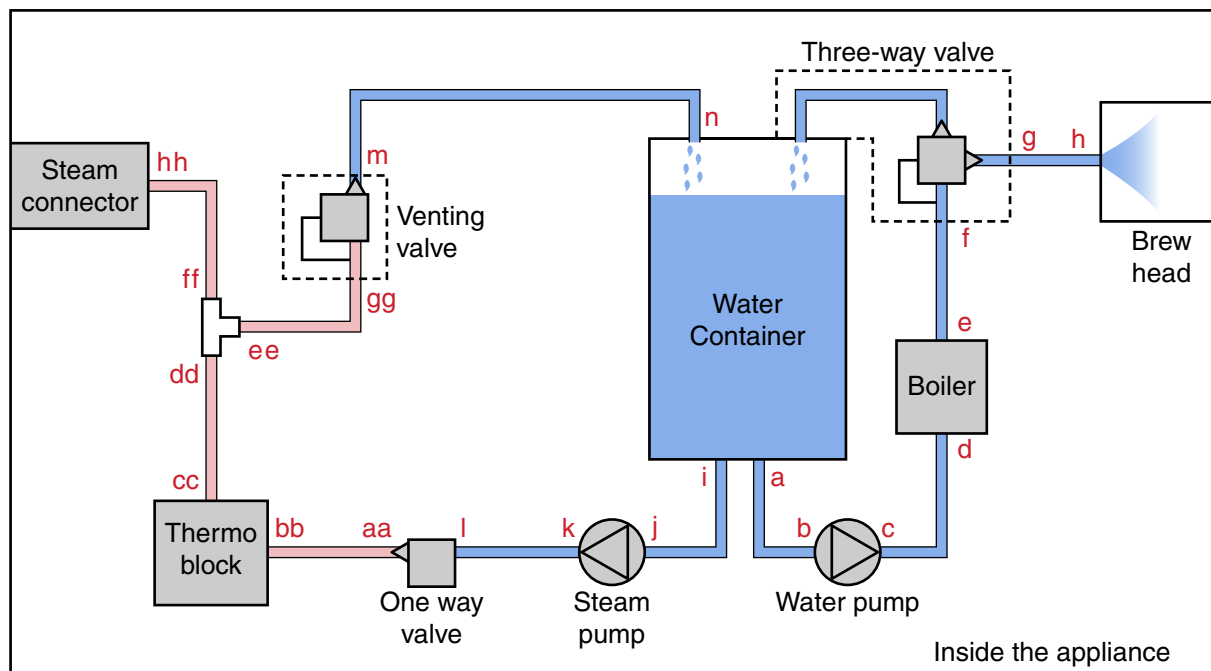
** Only valid for the default personal coffee preference setting

Note: Please note that the HD6574/xx models are equipped with a personal preference for each recipe. Make sure to select the default setting. (Press CALC button + recipe to change, for 2 seconds, until the appliance beeps. To select default volume press the Milk only button 6. Next the appliance proceeds to make the desired recipe.)

Capacitive User interface layout



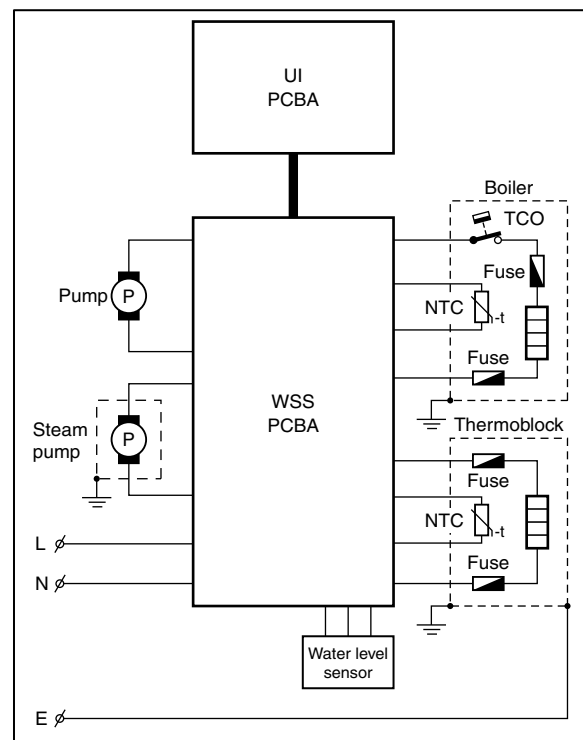
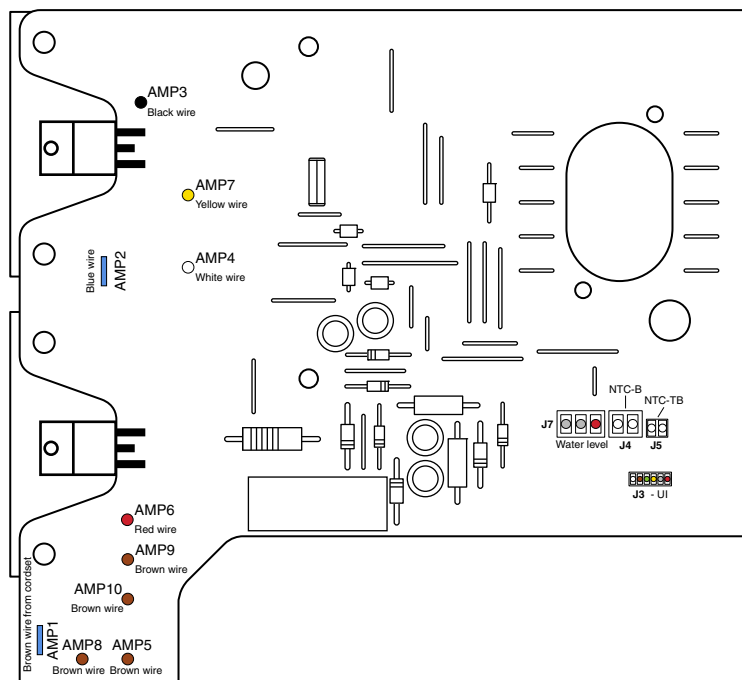
Hydraulic flowchart



Legend:

- Low pressure tube
- High pressure tube
- a - n Low pressure connections
- aa - hh High pressure connections

PCBA layout and functional schematic



Tools

Tools required for repair and diagnostics are:

- Flathead screwdriver #0, #2
- Torx screwdriver (T15)
- Cutter
- Cable tie tightening tool

- Digital Multimeter
 - Fluke 116 or comparable device with a base accuracy for temperature of 0,05 % or $\pm 0,3$ °C Temperature probe 80PK-22 (80AK-A Thermocouple adapter required)
- Scale
 - KERN EMB 500-1 or comparable device with a base accuracy of 0,05 % or $\pm 0,5$ g
- Power meter
 - Voltcraft EnergyCheck 3000 or comparable device with a base accuracy of 1 % or ± 5 W
- Stopwatch
 - Basic model

Note: All measurement devices need to be calibrated, certified and traceable to the international standards/laboratories.

Disassembly - and Reassembly advice

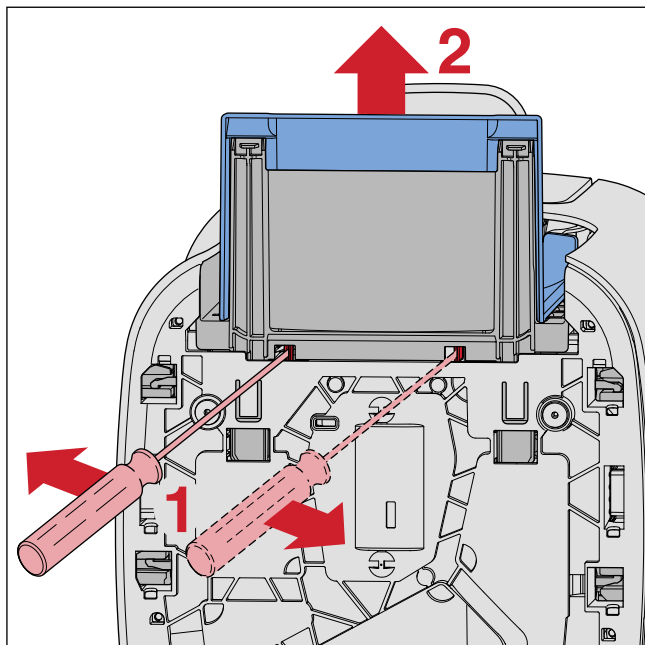
Remove all loose parts like Drip tray, water container and pod - holders.

Remove the back cover.

- Remove the four Torx screws (A) (T15) from the back cover.
- Carefully unhook the back cover from behind the both side covers.
- Use a flathead screwdriver to undo both snap hooks on either side of the back cover
- The back cover can now be tilted forward.
- Two hoses are still connected to the water container socket, they can be removed for easy access.

Remove the front cover.

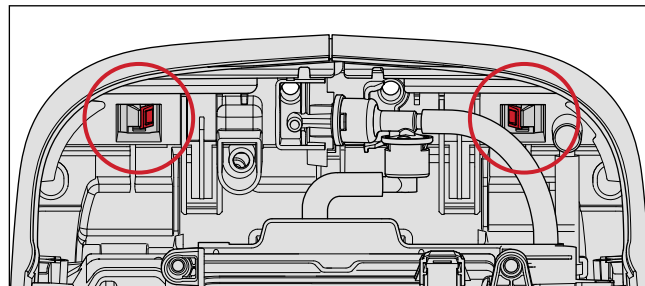
- Place the appliance on its backside, to be able to reach the underside.
- Use a flathead screwdriver to undo both snap hooks.



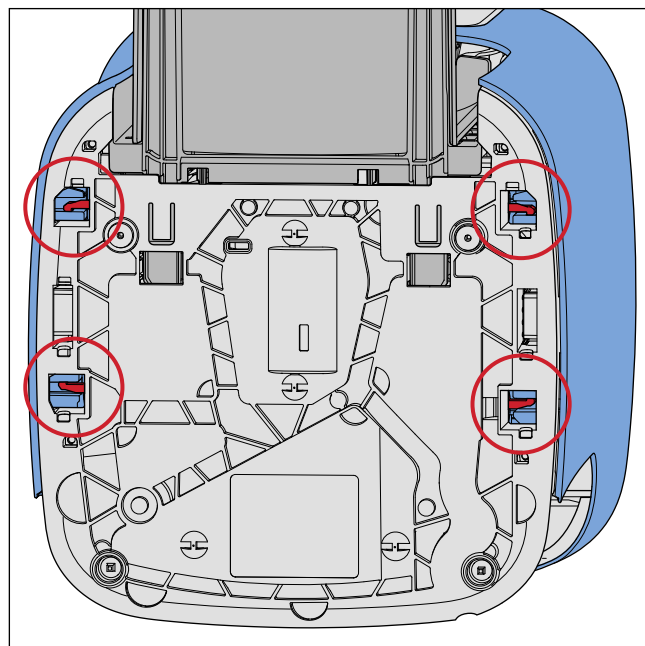
HD6570/60 /B

Remove the side covers.

- To be able to remove the side covers the top cover surrounding the lid needs to be removed, to do this two snap hooks need to be undone, they can be reached via the opening of the back cover.
- Unlatching the hooks needs some force, once undone you need to open the brewchamber to be able to completely remove the top cover.



- Unscrew both screws (B) on top side of the appliance, they were previously covered by the top cover.
- Place the appliance on its backside, now you can undo the snap hooks (two on either side), then you can remove the side panels.



With all covers removed you are able to reach all main components:

- Pump
- Boiler
- Steam pump
- 3 - way valve
- Thermo block fuses
- Brew head

Disassembly – and Reassembly advice

HD6570/60 /B

Remove the brewhead.

- Unhook the 3-way valve from the Brew chamber back frame and undo the hose from the 3-way valve to the brew chamber.
- Unhook the boiler from the boiler support on the Brew chamber bottom.
- The Brew head can now be tilted forward and removed from the appliance.

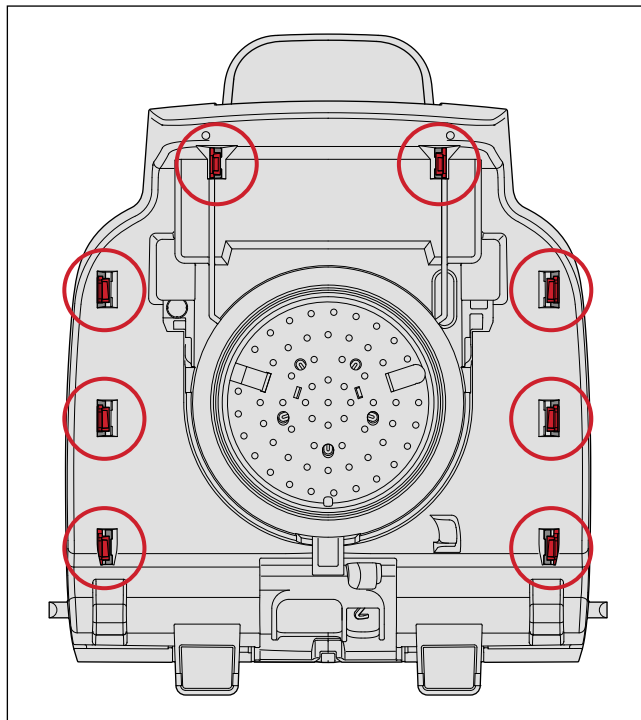
Remove the PCBA

- To be able to remove or replace the PCBA it is the easiest to open the appliance up until you have the Brew head removed.
- Carefully unplug all connectors on the lower right side of the PCBA for the NTC's, Brew head switch and water level sensor.
- Disconnect the Brown and Blue lead from the Cordset on the left side of the PCBA
- Undo all fixed leads from their routing through the frame. They are going to: Boiler, Thermo block, Steam pump and Water pump.
- The PCBA is held in place by one screw (E) in the center of the PCBA.

Open the brew head lid

- To be able to open the lid of the brew head, remove the front, back and side covers.
- Disconnect the UI cable from the Main PCBA (J3) to the brewhead, and undo its routing through the inner frame.
- Undo the hose from the 3-way valve to the brew head.
- Use a flathead screwdriver to unhook one side of the hinges of the brew head lid. Carefully feed the hose and cable through the frame.

- To open the lid, undo the eight snaphooks holding the lid in place. To be able to remove the lid completely the lever needs to be in the Open position (flipped up).



Note: Please make very sure that all wires you have undone will be put back properly and with the same routing as they have originally been designed.

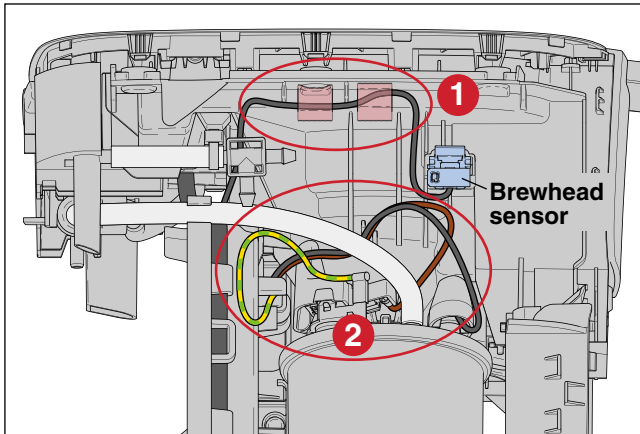
Note: Any tie-wrap that has been cut must be replaced by a new one as specified on the Parts list, and tightened with a force of 115 N.

Repair instruction

HD6570/60 /B

Boiler / Brew chamber

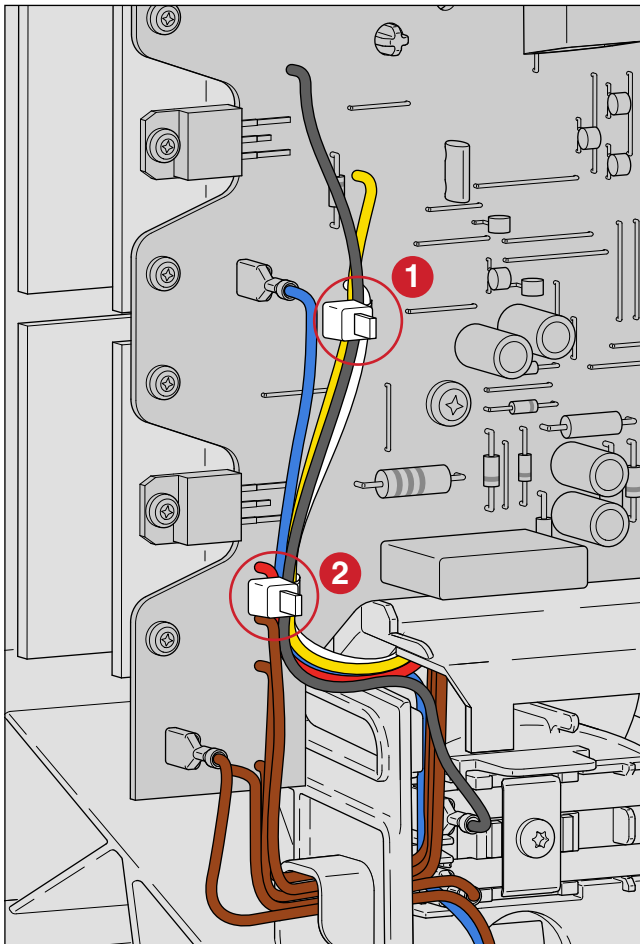
1. Brewhead sensor wire must be taped as far away from the boiler wires as possible. (EMC)
2. Boiler wires over the boiler, not behind or in front of the boiler. (Safety)



PCBA – Ty wraps

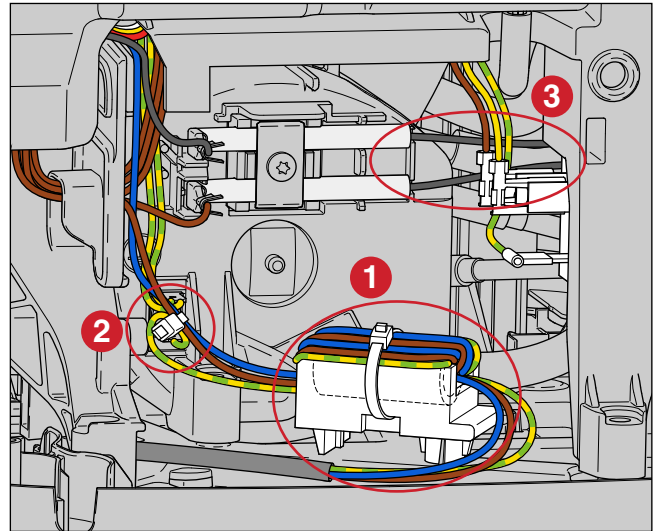
After PCBA replacement:

1. Ty-wrap Black, Yellow and White lead close to the connection of the white lead on the PCBA. (Safety)
2. Ty-wrap Black, Yellow, White, Blue and Red lead close to the connection of the red lead on the PCBA. (Safety)



Cordset, Earthwire and Thermoblock

1. Ferrite bead must be in place and ty-wrapped to filter out interference. (EMC)
2. “Clean” Brown and Blue wire must be ty-wrapped to Earth-wire close the Thermo-block. Earth-wire must be as far away from the cord-set as possible. (EMC)
3. Two Black fuse-wires to Thermo-block must run horizontal to the right, running behind the Steam-pump. (Safety)



Descaling

Scale builds up inside the machine during use. It is essential to descale the SENSEO® coffee machine when the CALC light goes on. If the descaling procedure is not performed correctly, scale residue remains behind in the machine. This causes scale to build up more quickly and may cause permanent and irreparable damage to the machine.

Use the correct descaling agent Use SENSEO® Descaler (HD7012, HD7011, HD7006) only. It has been developed to ensure better machine performance and operation. Never use a descaling agent base on mineral acids such as Sulphuric acid, Acetic acid (vinegar) or Hydrochloric acid. These descaling agents may damage your SENSEO® coffee machine.

For detailed instructions please refer to the Directions for Use, Chapter Descaling.

Volume adjustment

Note: *Volume adjustment may only be carried out in case the repair technician is sure there is no other underlying cause (e.g. leakage, incorrect voltage settings etc.) for the deviation in volume from the factory default.*

How to adjust the volume output:

1. Make sure the boiler is filled properly, otherwise perform the Flush before first use procedure, according to the instructions in the DFU
2. Switch the appliance on, and wait until the unit is ready.
3. Place either the 1 -cup or the 2 -cup pod holder in the appliance **without** a coffee pod.
4. Calibrate a scale with the cup you are going to use for the measurement.
5. Press the Normal coffee button once, to make a normal cup of water. (when finished also pour the contents of water left in the pod holder into the cup)
6. Measure the output and compare to the specifications on Page 2.
7. Determine the deviation from the specification, the deviation can be adjusted in steps of 3,5 mL. The deviation divided by 3,5 will tell you how many steps you need to in-, or decrease.
8. Follow the steps as mentioned under Service modes - Manual pump calibration to re-calibrate the pump.
9. Measure the newly programmed volume.

Service modes

The appliance is equipped with a dedicated service mode. The service mode enables you to carry out some settings and tests.

Please note, as the appliance is equipped with a capacitive touch panel as a user interface, special attention is required to be able to enter several service modes. The capacitive buttons need 0,5 seconds to initialize after the mains is connected. During this timeslot the capacitive buttons must not be touched, otherwise you will not be able to enter the service modes.

• Manual pump calibration

Calibration - step 0: Entry to calibration mode

1. Connect mains;
2. After 0.5 second and before 1.5 second operate Button 2 and Button 5 simultaneously.
On/off LED will be switched ON.
3. Release all switches.
On/Off LED will be switched OFF.

Calibration - step 1A: Decrease calibration value

1. Push (and release) button 2 to decrease the calibration value.
The On/Off LED will be ON for 0.5 seconds.
2. Repeat step 1A.1 when required.

Calibration - step 1B: Increase calibration value

1. Push (and release) button 5 to increase the calibration value.
The On/Off LED will be ON for 0.5 seconds.
2. Repeat step 1B.1 when required.

Calibration - step 2: Store calibration value

1. Operate the On/Off button.
On/Off LED will blink fast for 1.0 seconds and the calibration value is stored.
2. Release all switches
The On/Off and 1 -cup LED will be OFF

Calibration - step 3: End mode

1. Disconnect mains → End test program

• Sensor & LED test

To validate the assembly and electrical correctness of an appliance, especially during testing and debugging phase, a sensor and LED test is very useful. Please keep in mind that it is not an automated test and only intended as indication.

Test-step 0: Entry to test mode

1. Connect mains;
2. After 0.5 second and before 1.5 second operate Button 2, On/Off button and Button 5.
3. Release all switches.
4. All LEDs will be ON for 1.0 seconds and after that switch to OFF again.

Test-step 1: Button identification

1. Manually operate a button.
The related LED - refer to the table below - will be ON.
2. Release the button.
The related LED - refer to the table below - will be OFF.

Sensor	LED	LED on	LED off
Decal button	Decal LED	Button pressed	Button released
Button 1	1 -cup LED	Button pressed	Button released
Button 2	1 -cup LED	Button pressed	Button released
Button 3	1 -cup LED	Button pressed	Button released
On/Off button	On/Off LED	Button pressed	Button released
Button 4	2 -cup LED	Button pressed	Button released
Button 5	2 -cup LED	Button pressed	Button released
Button 6	2 -cup LED	Button pressed	Button released

Test-step 2: Entry sensor mode

1. Operate Button 2, On/Off button and Button 5.
2. Release all switches
3. All LEDs will be ON for 1.0 seconds and after that switch to OFF again.

Test-step 3: Sensor identification

1. Manually operate a sensor.
The related indicator - refer to the table below - will be activated.
2. Release the sensor.
The related indicator - refer to the table below - will be deactivated.

Sensor	LED	LED on	LED off
NTC Boiler	On/Off LED	NTC error	NTC OK
NTC Thermo block	Decal LED	NTC error	NTC OK
Water level sensor	1 -cup LED	Water present	Water low or no water present

Test-step 4: End test

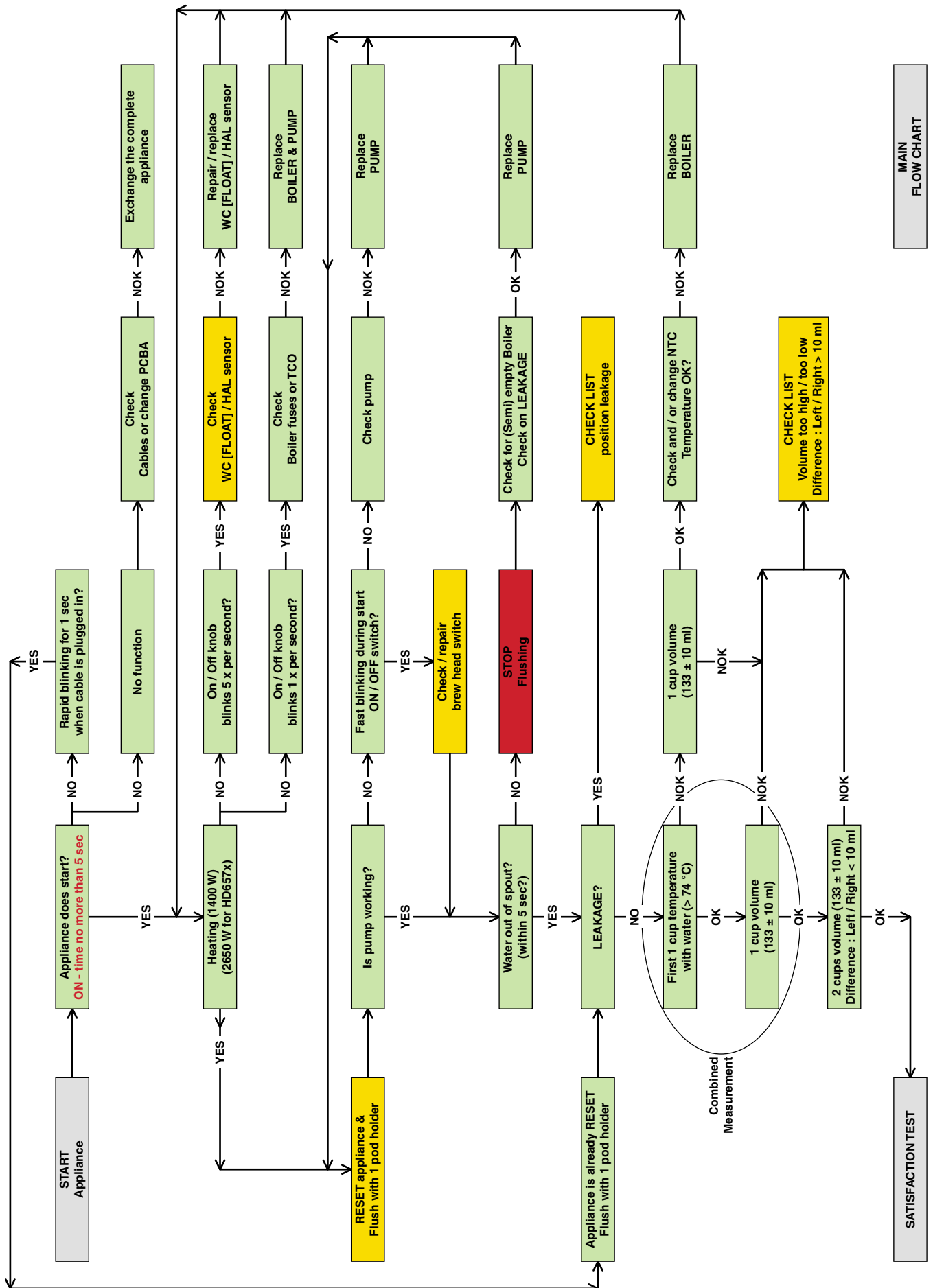
1. Disconnect mains → end test program

• Boiler reset

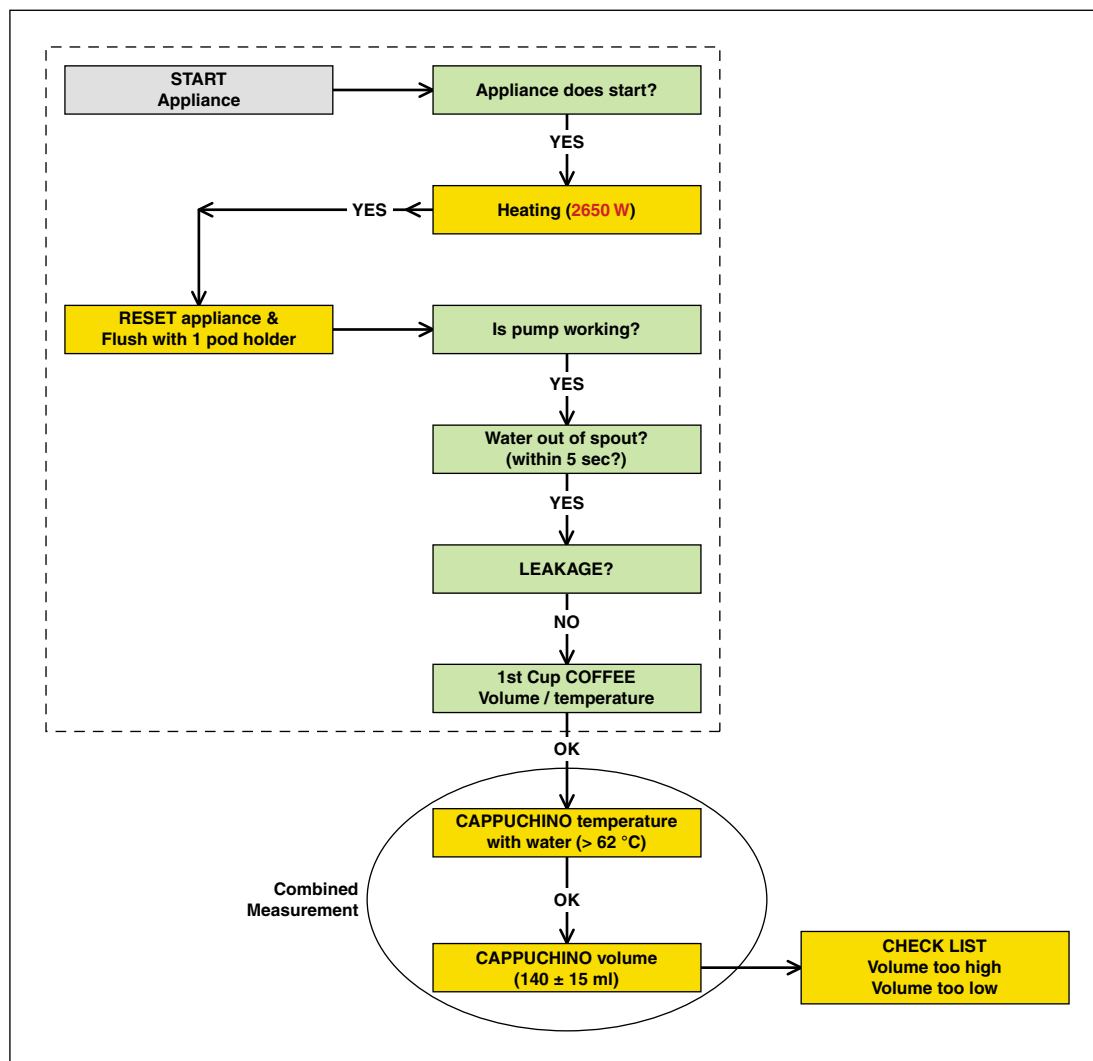
Boiler reset-step 0: Entry to boiler reset mode

1. Connect mains.
2. After 0.5 second and before 1.5 second operate Button 3 and Button 4.
3. Release all switches
The On/Off LED will blink fast for 0.5 second.

Functional test diagram for milk - based appliances



Additional functional test for milk recipe volume and temperature



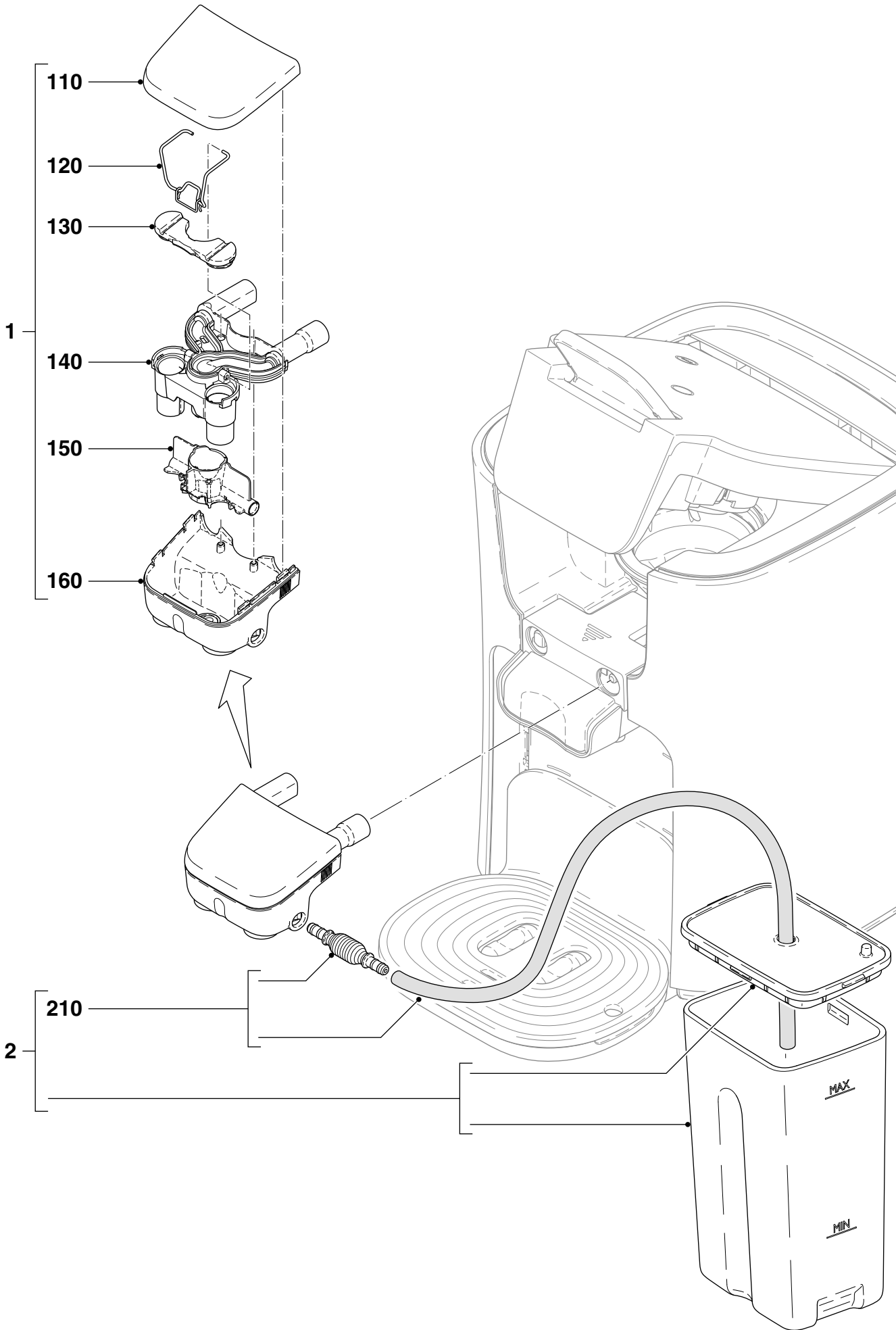
Note: For all “action” boxes marked in **yellow** please refer to the latest version of the Senseo Repair Process.

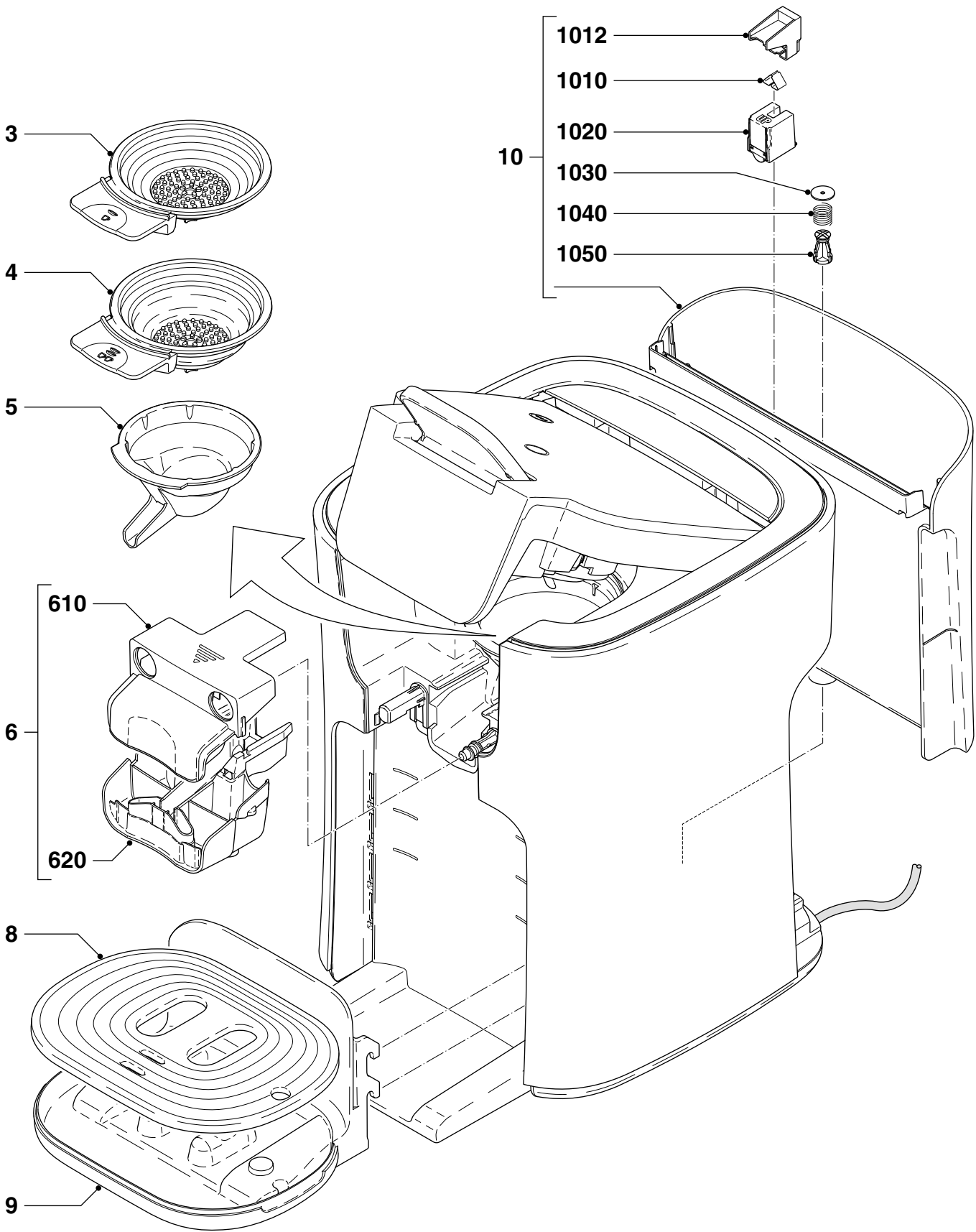
Note: For new repair engineers it is advisable to start with the complete Senseo Repair Process, your contact in the Global Consumer Care organization can provide this to you.

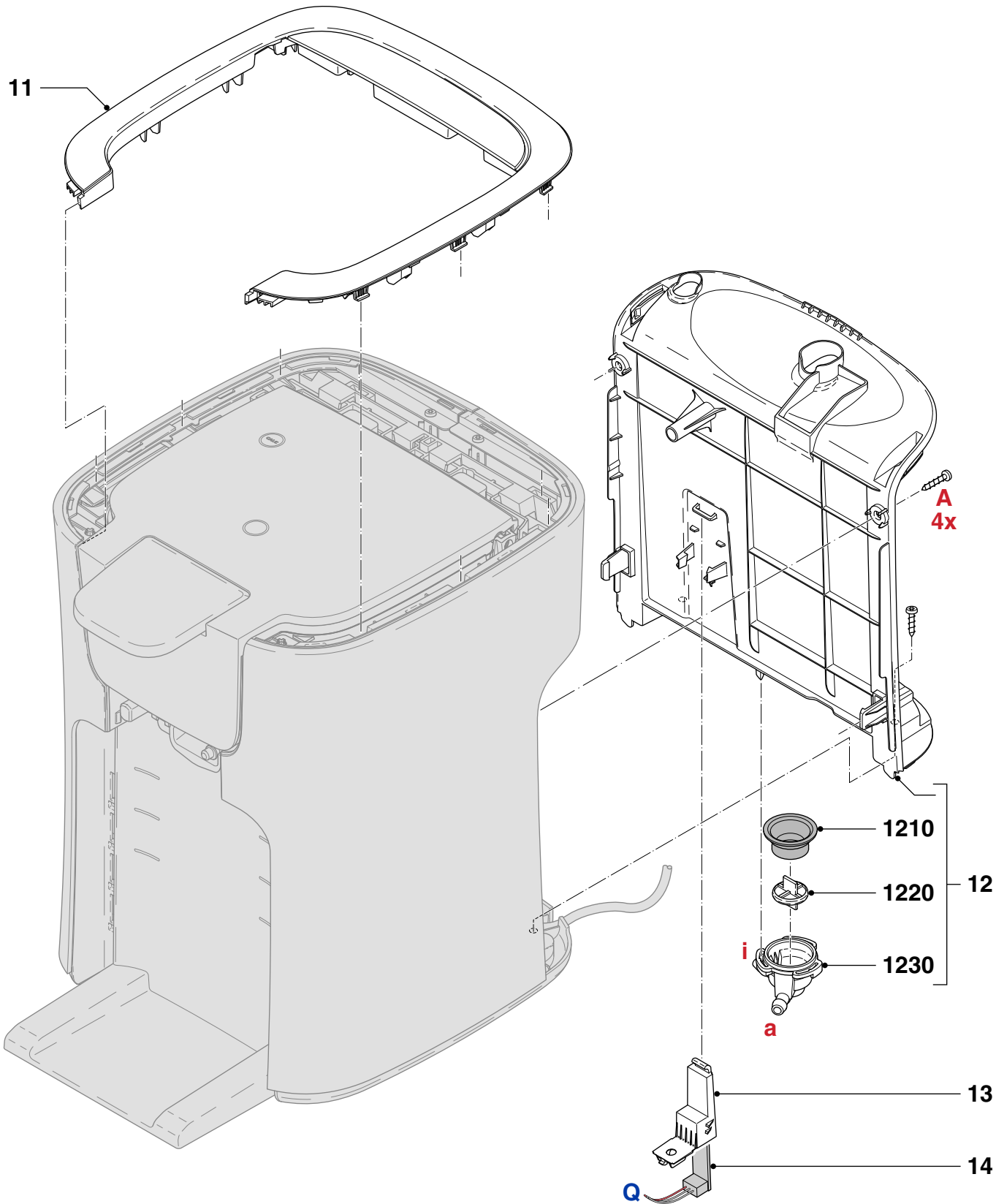
Pos	Service code	Description	Remark
1	4222 259 68901	Milk Frothing Unit assy	Chrome / Grey
110	4222 259 56511	MFU spout cover	Chrome
120	4222 240 06792	MFU lock spring	
130	4222 247 73341	Setting chamber	Natural
140	4222 247 71341	Steam nozzle assy	Star white
150	4222 247 73331	Recepter house	Natural
160		MFU bottom cover	Cashmere grey
2	4222 259 69551	Milk container + Lid + Black hose assy	
210	4222 259 69481	Milk hose assy	Deep black
3	4222 259 44211	Pad holder assy 1 -cup	Deep black
4	4222 259 44221	Pad holder assy 2 -cup	Deep black
5	4222 247 61280	Collector	Deep black
6		Coffee spout assy	Deep black
610	4222 247 72252	Coffee spout cover	Deep black
620	4222 247 71662	Coffee spout	Deep black
8	4222 247 72061	Drip tray cover	Deep black
9	4222 247 71562	Drip tray	Deep black
10	4222 259 59051	Water container assy	Sepia grey
1010		Float spring	
1012		Float spacer	
1020		Float assy	
1030		Valve seal	
1040		Valve spring	
1050		Valve rod	
11	4222 247 71544	Top Cover	Translucent diffused black
12	4222 259 56722	Back cover	Deep black
1210		WC sealing	
1220		Filter	
1230		WC socket	
13	4222 247 59473	Housing Sensor Water level	
14	4222 259 56481	Sensor Water level	
15	4222 247 71533	Left panel	Deep black
16	4222 247 71512	Frame	Deep black
17	4222 247 71551	Front panel	Deep black
18	4222 247 71522	Right panel	Deep black
21	4222 259 59071	Steam out assy	Deep black
2110	4222 247 07941	O - ring	
22	4222 247 72163	BC Back frame	
23	4222 259 59551	3 - way valve	Latte Duo/Quadrante
24	4222 247 71052	PCBA Cover	

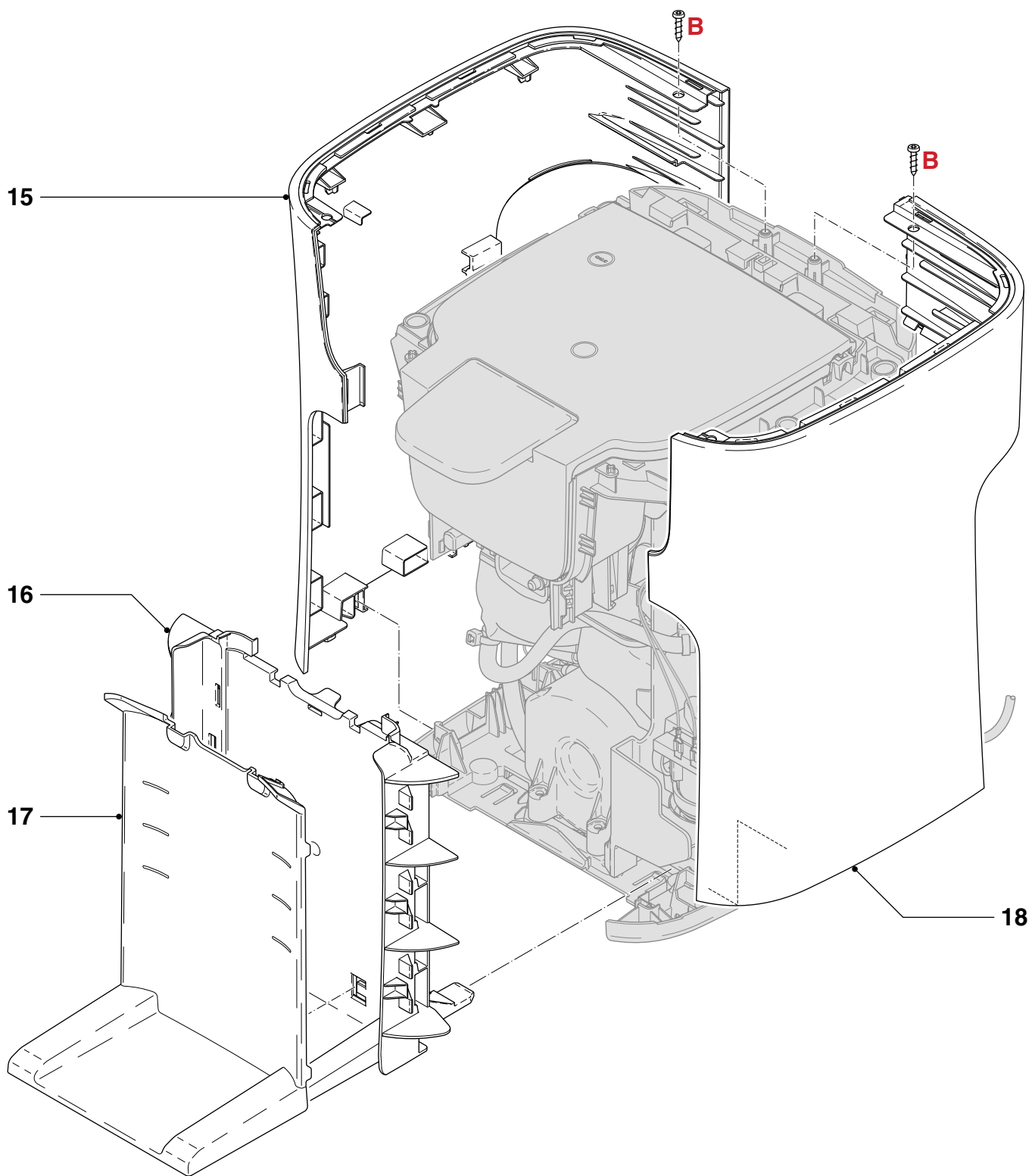
Pos	Service code	Description	Remark
25	4222 259 68891	Brew chamber assy	Black / Cashmere grey
2510		Top lid assy	Deep black
2520	4222 259 64991	Lever assy	Black / Cashmere Grey
2530	4222 247 61310	Push rod	
2540		Hose 3WV - BC	
2550	4222 240 01410	Slider spring	
2560	4222 247 72201	Lid frame	Deep black
2570	4222 240 05990	Ejector pin	
2580	4222 247 06810	Brewchamber seal	
2590	4222 247 75332	Distribution disk	Coffee boost
25100	4222 240 01453	Lid spring	
25110		BC bottom	Deep black
25120	4222 259 59081	MFU guidance assy	Cashmere grey
26	4222 247 75271	TCO cover, OPR	
27	4222 247 43690	Boiler pin cover	
28	4222 259 47301	NTC boiler assy	
29		Hose B - 3WV	
30	4222 259 65481	Boiler assy	OPR 230V
31	4222 247 05134	O-ring, (NTC)	
32		Thermoblock assy	230V
3210	4222 259 59231	Venting valve (VV)	
3220		Hose TP - VV	
3221		Hose OV - TB	
3222		Hose TB - TP	
3223		Hose TP - Steam outlet	
3230	4222 247 72081	T-piece	
3240	4222 259 41870	Fuse assy welded 1 piece	
3250	4222 259 41750	Thermoblock	230 V / 50 Hz
33		Inner frame assy	HD7855 / HD7856 / HD6570
3310	4222 259 67981	WSS PCBA assy 230 V 6pin connector	HD7855 / HD7856 / HD6570
3320		Clamp	
3330	4222 247 70981	Boiler support	
3340	4222 247 07891	Hose WP - B	
3341		Hose VV-WC	
3342		Hose SP - OV	
3343		Hose inlet - SP	
3344	4222 247 71473	Hose connector WP	
3345		Hose Inlet - WP	
3360	4222 259 60371	One way valve	
3370	4222 259 41230	Steam pump (SP)	CEME E151

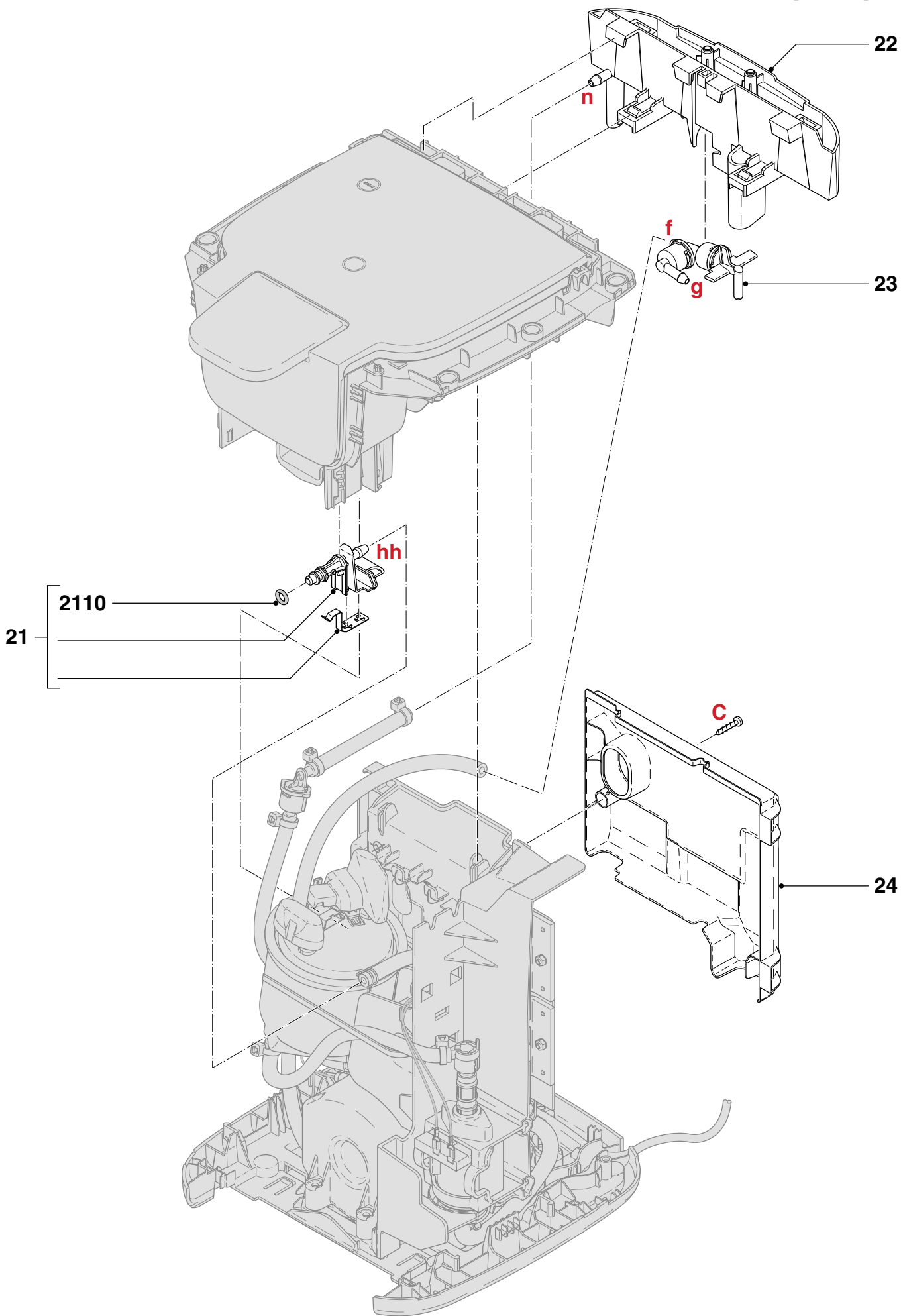
Pos	Service code	Description	Remark
3371		Damper SP	
3380	4222 259 56571	Earth wire assy	
3390	4222 259 37247	Pump (WP)	230 V / 50 Hz
3391	4222 247 04992	Damper WP	
3392	4222 240 06771	Spring WP	
33100		Inner frame WSS	
33110		Inner frame WP	
34	4222 247 72153	Base plate	Cashmere grey
35	4213 247 05256	Foot	
100	4222 244 50680	Ty-wrap	
101	4222 244 50692	Ty-wrap Boiler	

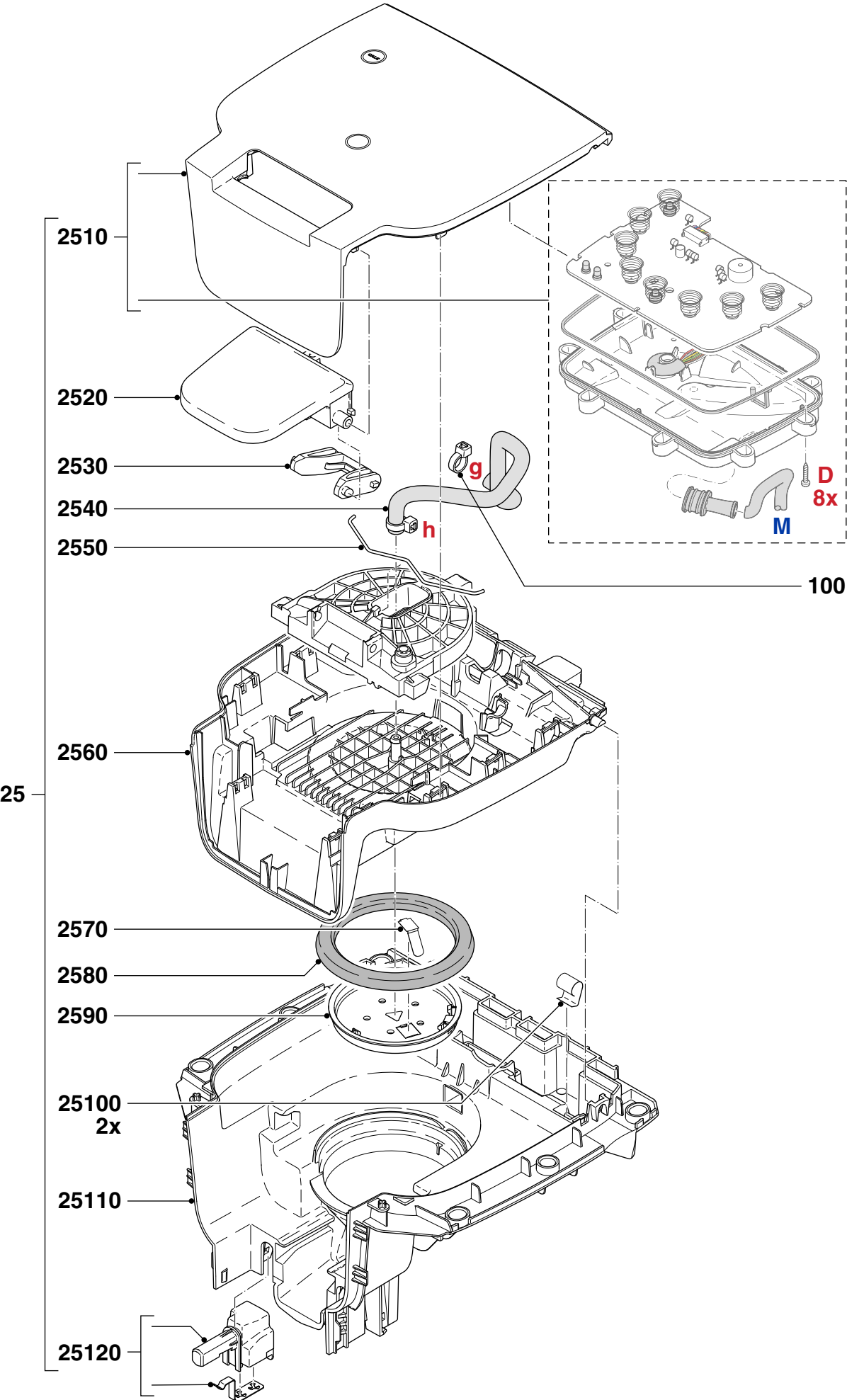


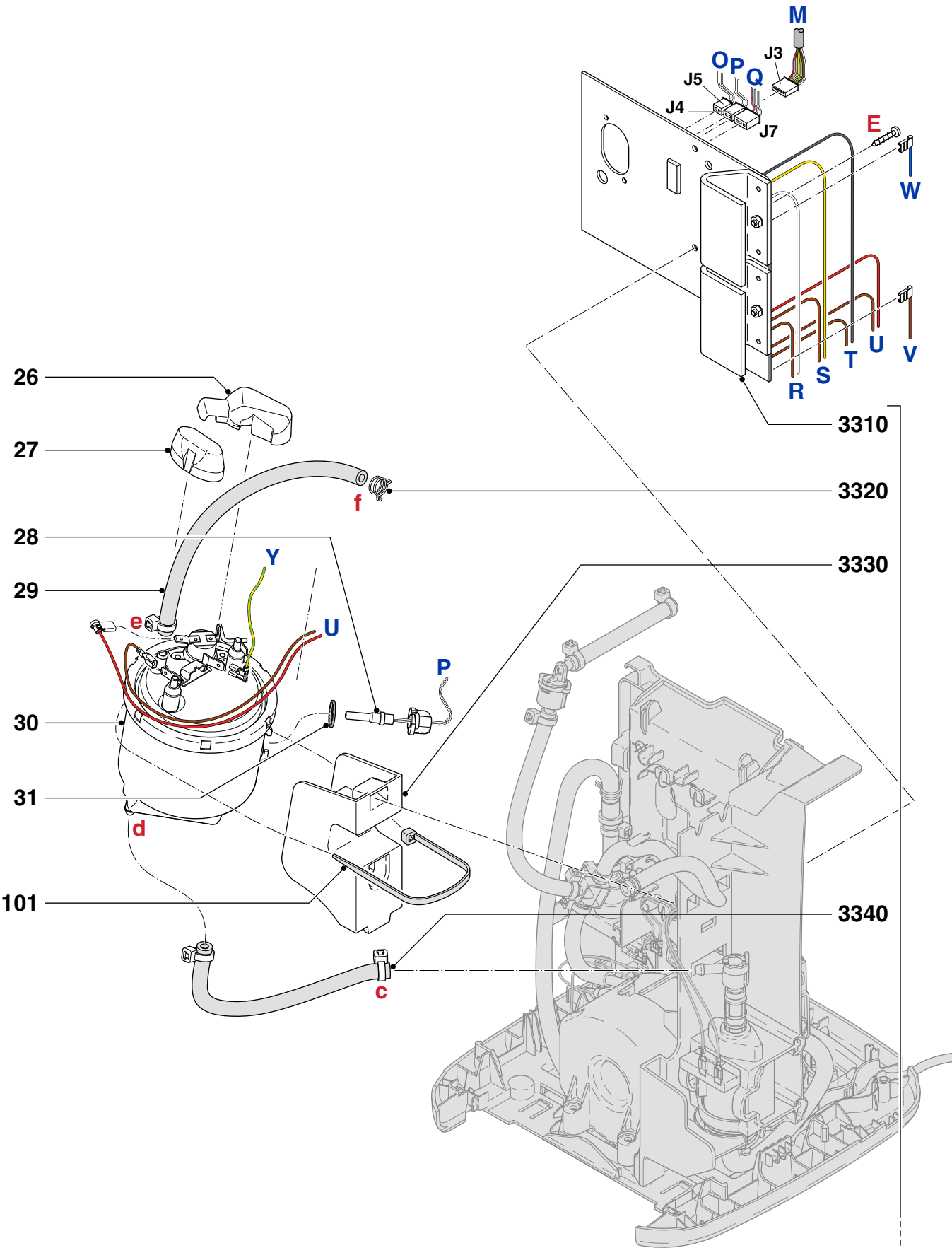


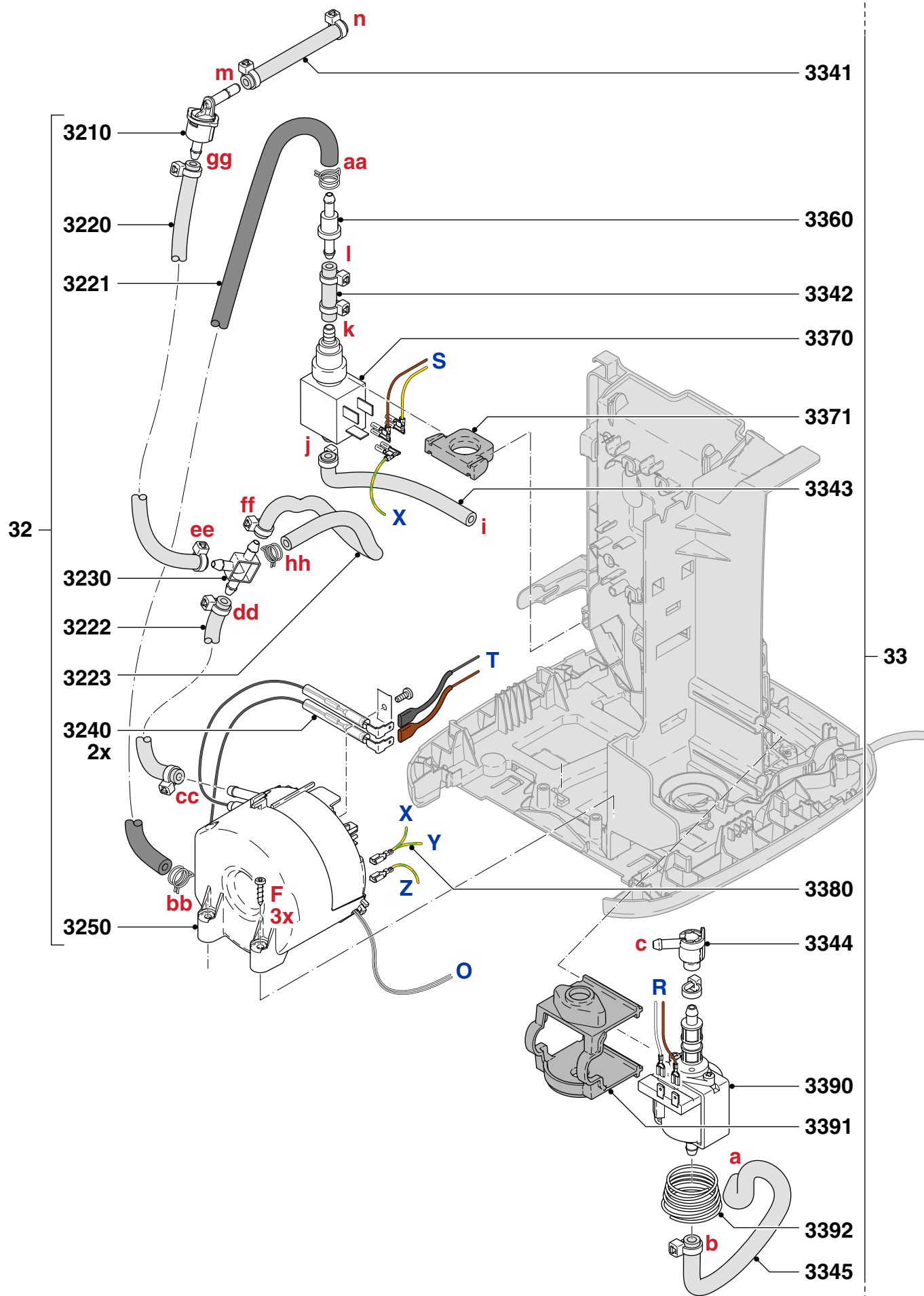


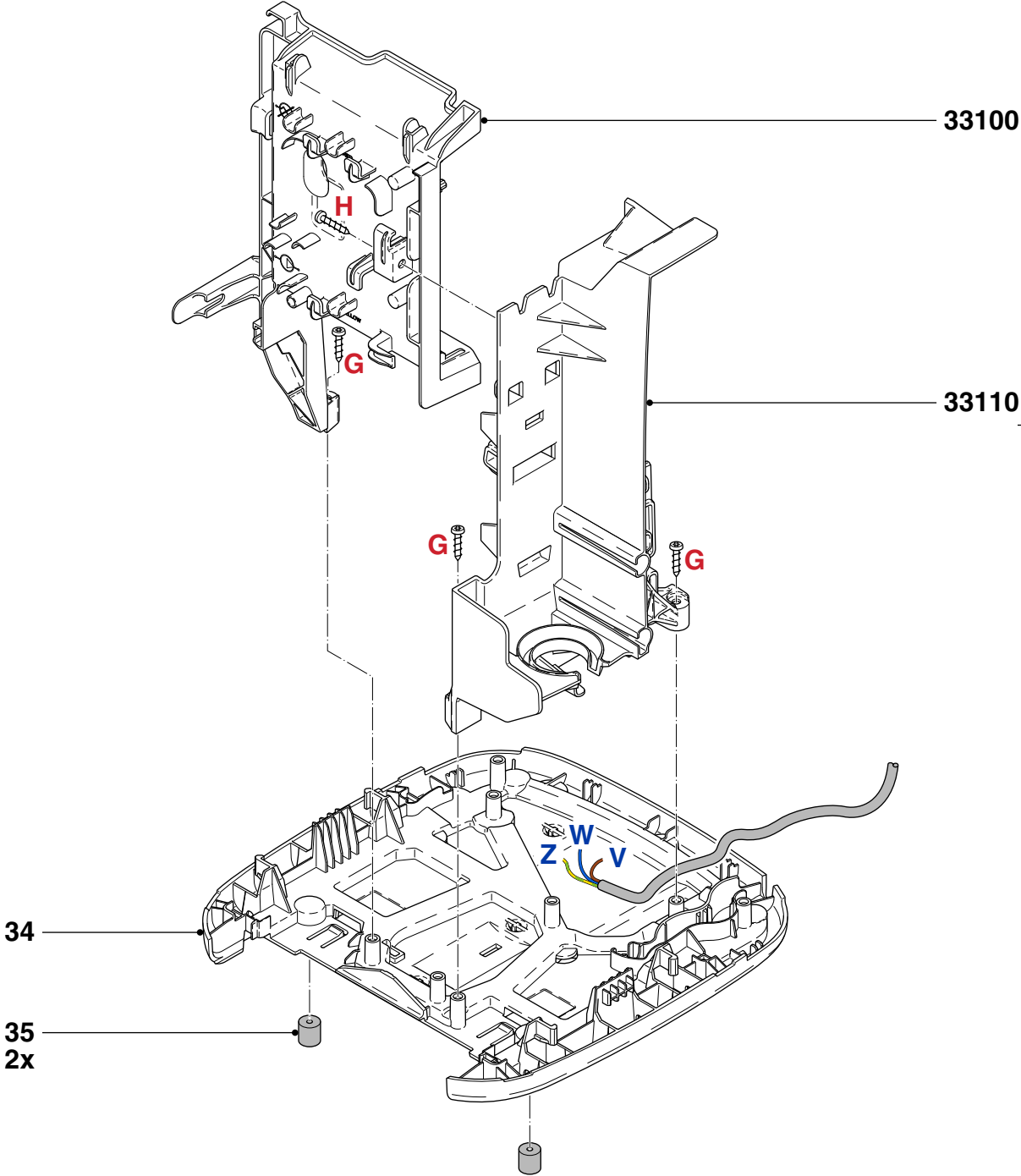












Version history

17/07 Version 1.1 : HD6570/60 B initial release.