

Coffee Maker Senseo “Cappuccino Select”

Service
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HD7853/60
HD7853/61
HD7853/62



Philips Consumer Lifestyle

Service Manual

PRODUCT INFORMATION

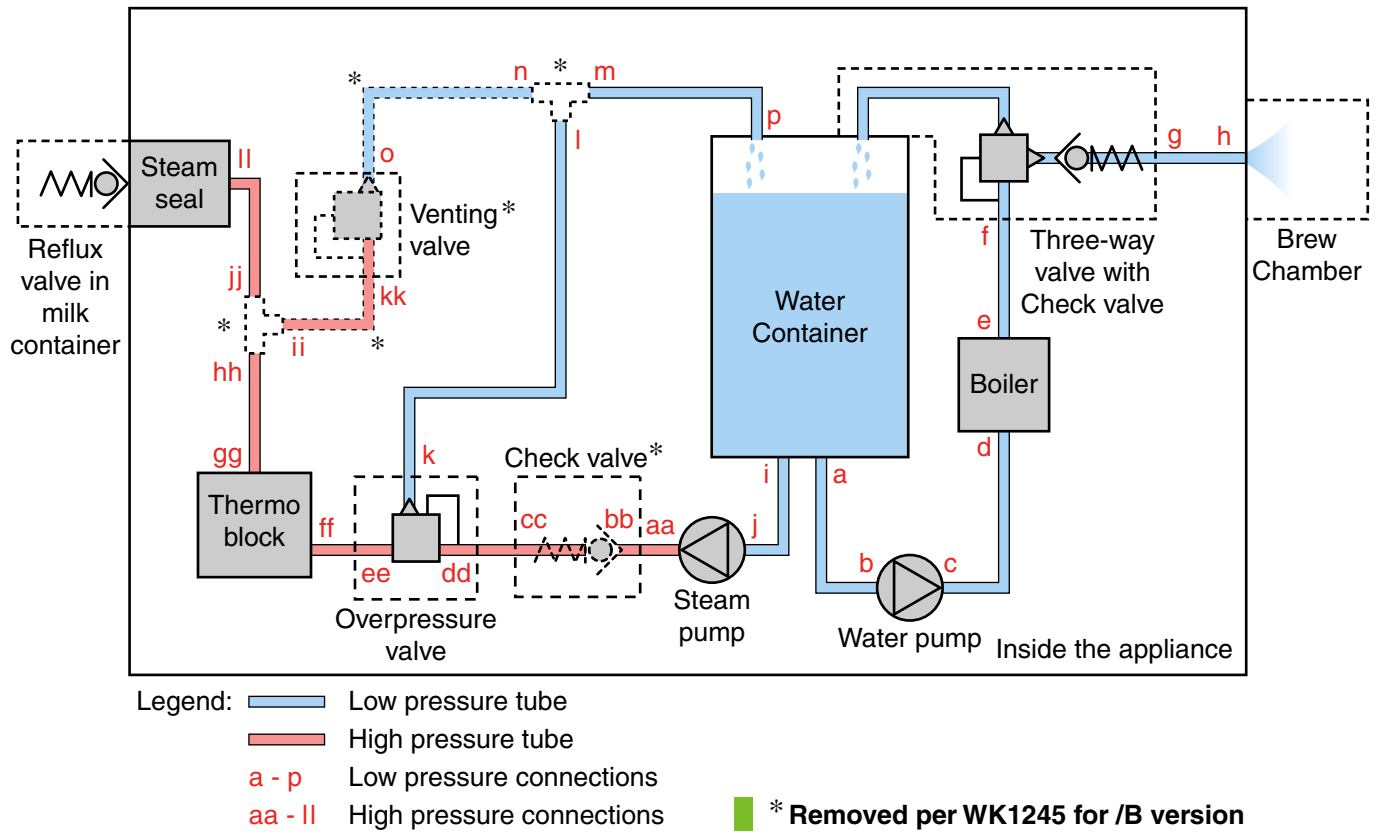
- This product meets the requirements regarding interference suppression on radio and TV.
- After the product has been repaired, it should function properly and has to meet the safety requirements as officially laid down at this moment.
- Standby power (switched off) : < 1 W
- Standby power (switched on 30 min) : ± 30 W (room temperature)
- Pressure Coffee system : < 1.6 Bar
- Pressure Steam system : < 1 Bar
- Contents water reservoir : 1200 cc/mL
- Contents milk reservoir : 120 cc/mL
- Auto shut off : 30 min
- Colour setting : Deep Black

TECHNICAL INFORMATION

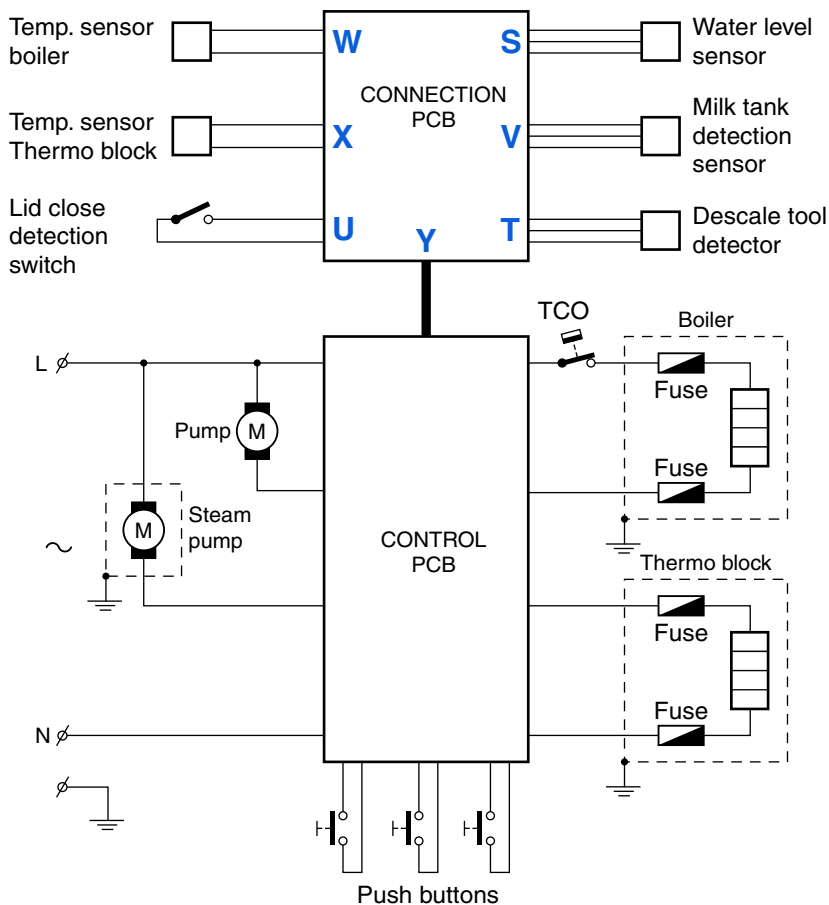
- Voltage : 220 - 240 V
- Frequency : 50 - 60 Hz
- Power consumption : 2650 W
 - Boiler : 1450 W
 - Steam heater : 1200 W

Cappuccino	Volume (cc)	Weight (g)		Indication temperature for chosen Coffee/Milk receipe very depended from milk inlet temperature.
	cc	max. (g)	min. (g)	(°C)
All versions	159 \pm 15	160	130	≥ 63

Build up: Water and Steam circuit



Electrical circuit



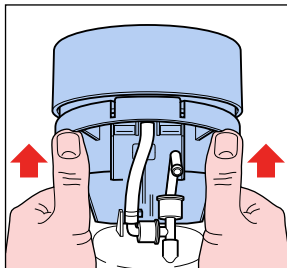
■ = changed

Remove back cover.

- Remove screws (T15) from the back cover.
- Remove valve outlet.
- Start at the upper side of the back cover and stick a screwdriver between the back cover and lid cover and gently pull the back cover from the appliance so that a little chink between back cover and lid becomes visible.
- Put the screwdriver into the 2 rectangular holes (snap locks) at the back and gently pull the screwdriver such away that the lips of the snap locks are bent outwards.
- If both clicks positions are loose, it is possible to remove the back cover.
- Reassemble follow steps backwards.

Remove brew chamber:**Removing Brew chamber head handle as follows:**

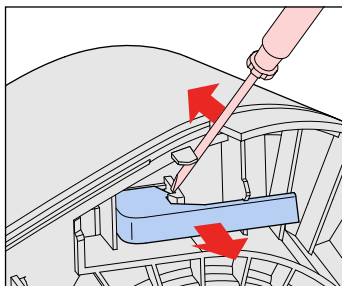
- Remove boiler from the snap lock position of the brew chamber.
- Gently lift the backside (see picture) of the brew chamber up and unhook the two snap locks on front with help of a screw driver.



- Remove connection PCB + PCB cover.
- Remove 3 way valve and electronic connector (U) from the connection PCB.
- Reassemble follow above steps backwards.

Remove the “lid closed” detection micro switch.**Disassemble brewing head.**

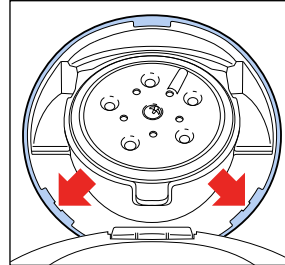
- Unlock the snap lock which is holding the micro switch assembly. (see picture for detail)



- Gently pull out the switch assembly.
- Reassemble follow above steps backwards.

Remove brew chamber cover to reach user interface PCB.

- To remove the brew chamber lid cover place the screwdriver on the positions (see picture) and lift the cover over the snap locks on both positions.



- The cover lid can now be lifted a little.
- Remove the complete cover by unlocking the pushrod from the brew chamber.
- The user interface PCB can be removed by unscrewing 3 screws (T8)
- Reassemble follow steps backwards.

Removing the “de-scaling Hall sensor” detector / steam connection

- To be able to remove the Hall sensor, first unhook the spout out of the housing.
- Hall sensor assy can be taken out.
- To disconnect the steam connector rotate it clockwise and pull out of the spout.

To reach the components like pump, PCB, steam heater placed on the base.

- First remove back cover, brew chamber, 3-way valve, steam pump and boiler.
- Remove the 4 Torx T15 screws (two at the base and two at the housing part).
- Bend the 2 click snap locks with a screwdriver (see base), the housing can now be removed.
- To remove the rest of the housing unlock the 4 snap locks at the base and gently pull off the front cover.
- To reassemble follow above steps backwards.

OPTIONAL (accessories)

- No specific issues

Descaling

Descaling is an important element in Senseo maintenance. It should be done at least once every 3 months, up to 6 times a Year! This will prolong the life of your appliance and will guarantee optimal brewing results for a long time.

Use the correct descaling agent. Only citric acid-based descalers are suitable for descaling the SENSEO® machine. This type of descaler descales the appliance without damaging it. For the correct amount, see under 'Descaling procedure' below.

Each descaling mixture can be used only once. After use, the descaling mixture is no longer active. We advise you to use the special SENSEO® Descaler (HD7006).

Read the instructions on the package of the descaling agent. Never use a descaling agent based on mineral acids such as sulphuric acid, hydrochloric acid, sulphamic acid and acetic acid (e.g. vinegar). These descaling agents may damage your SENSEO® coffee machine.

Follow the steps in the section headed "Descalc the appliance" see DFU (Direction for Use manual).

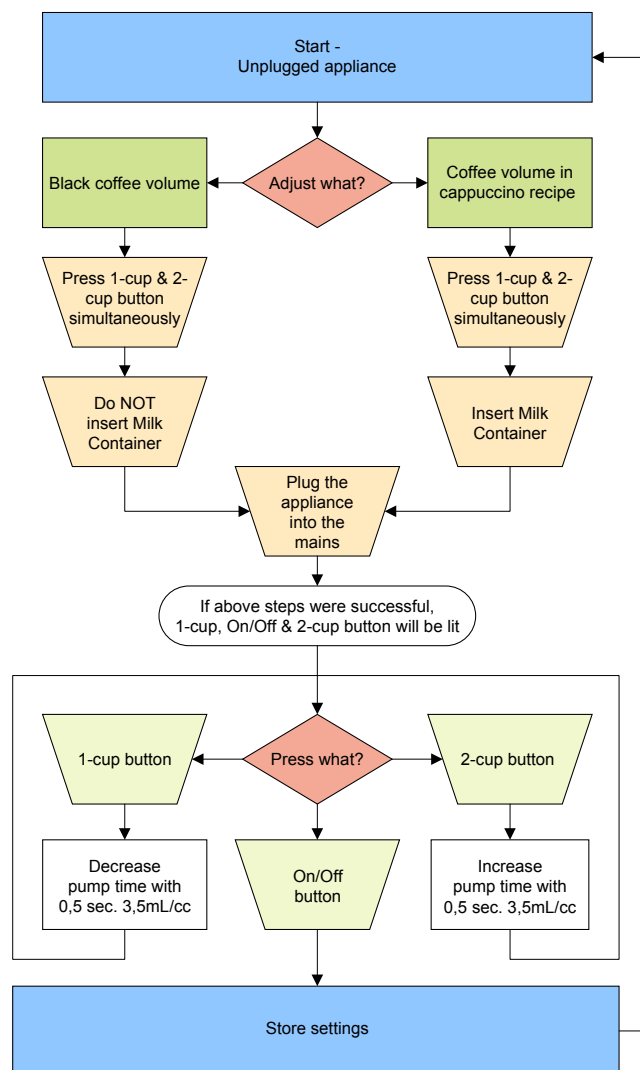
Volume adjustment

The PCB circuit board makes it possible to adjust the volume output by means of pushing the one-cup and two-cup user controls.

How to adjust the volume output:

1. Be sure the boiler is filled properly, other wise perform fill procedure see DFU for instructions.
2. Switch appliance on and wait until the unit is ready to brew.
3. Choose the setting of which you want to adjust the volume
4. Be sure a **pod holder** is placed, but **without** a Coffee POD. (Only adjusting with plain water)
5. Place a cup on the drip tray cover.
Press the 1-cup button once to measure the black coffee volume, press the 1-cup button twice to measure the coffee volume in a cappuccino.
6. When the appliance has finished it is stabilized to perform the volume adjustment.
7. Empty the cup, podholder and push again for one cup setting, measure the volume output with a graduated beaker. In the table you can find the requirements for the minimum / maximum volume output cc/mL values depending from the country version:

One-cup setting, Including Pod holder, water spec. (Without Coffee pod)		
	Min. water cc/mL	Max. water cc/mL
General	125	141
France	104	120
Spain	65	81
Cappuccino	65	81



8. Turn appliance on again and brew one cup, measure the volume. In case the volume is not within specification repeat step 7.
9. End.

Automatic filling procedure:

The Senseo PCB contains an automatic filling procedure software routine.

This fill routine is only meant for **back-up**.

Normally the consumer has to follow the guidelines stated in the DFU.

The filling procedure functions as follows:

The consumer has to fill the water container and has to plug the appliance on the mains.

When the Senseo main switch has been pushed the main switch led, one- and two cup led will light continuously.

This is only the case when the Senseo has not finished the filling procedure completely! (**First use**)

This can be checked by reconnect the power cord a second time to the net and check if the main switch LED will blink very rapidly for approximately 1 second.

When the consumer pushes the one or two-cup button, the Senseo will start automatically the pump to fill the boiler and after that the Steam heater will also be filled.

When the water container is empty the filling procedure is finished.

When the filling procedure has been successful the software will clear a **Boiler_empty_flag** in the Eeprom.

By means of this **Boiler_empty_flag** the system knows the boiler is filled or not!

When the Senseo is switched off or disconnected from the mains, the value of the **Boiler_empty_flag** is stored in the Eeprom chip.

Restoring the Boiler_empty_flag to production default:

Some times it is needed that the boiler of the Senseo have to be emptied.

This for instance in wintertime where the possibility exists that the boiler becomes frozen during transport e.g.

For those occasions it is handy to restore the **Boiler_empty_flag** again to production default in the Eeprom.

Bringing the Senseo back into production status, has the benefit the flush routine will be activated automatically when installed by the consumer; see topic **Automatic filling procedure**.

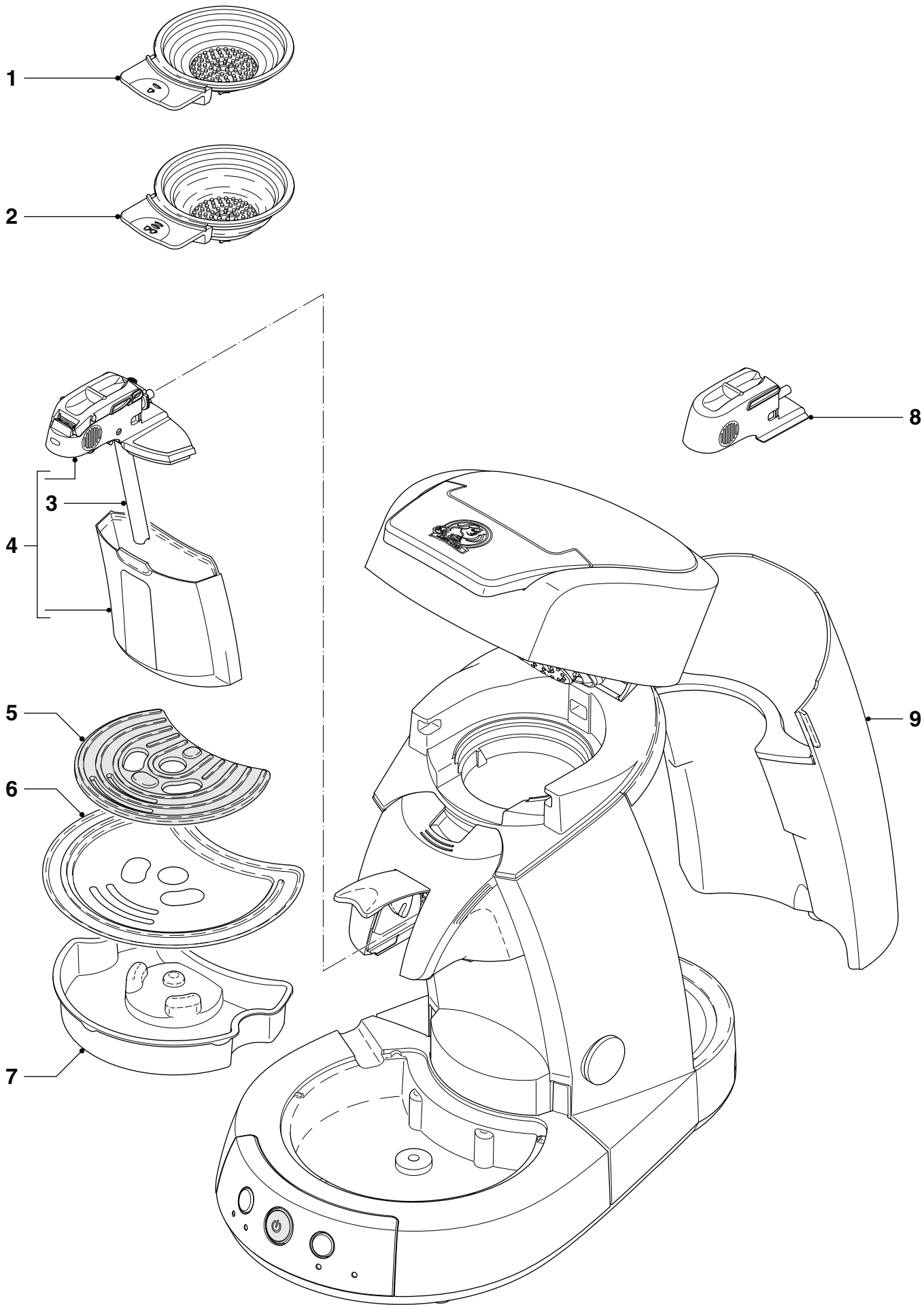
To **SET** the **Boiler_empty_flag** can be done by:

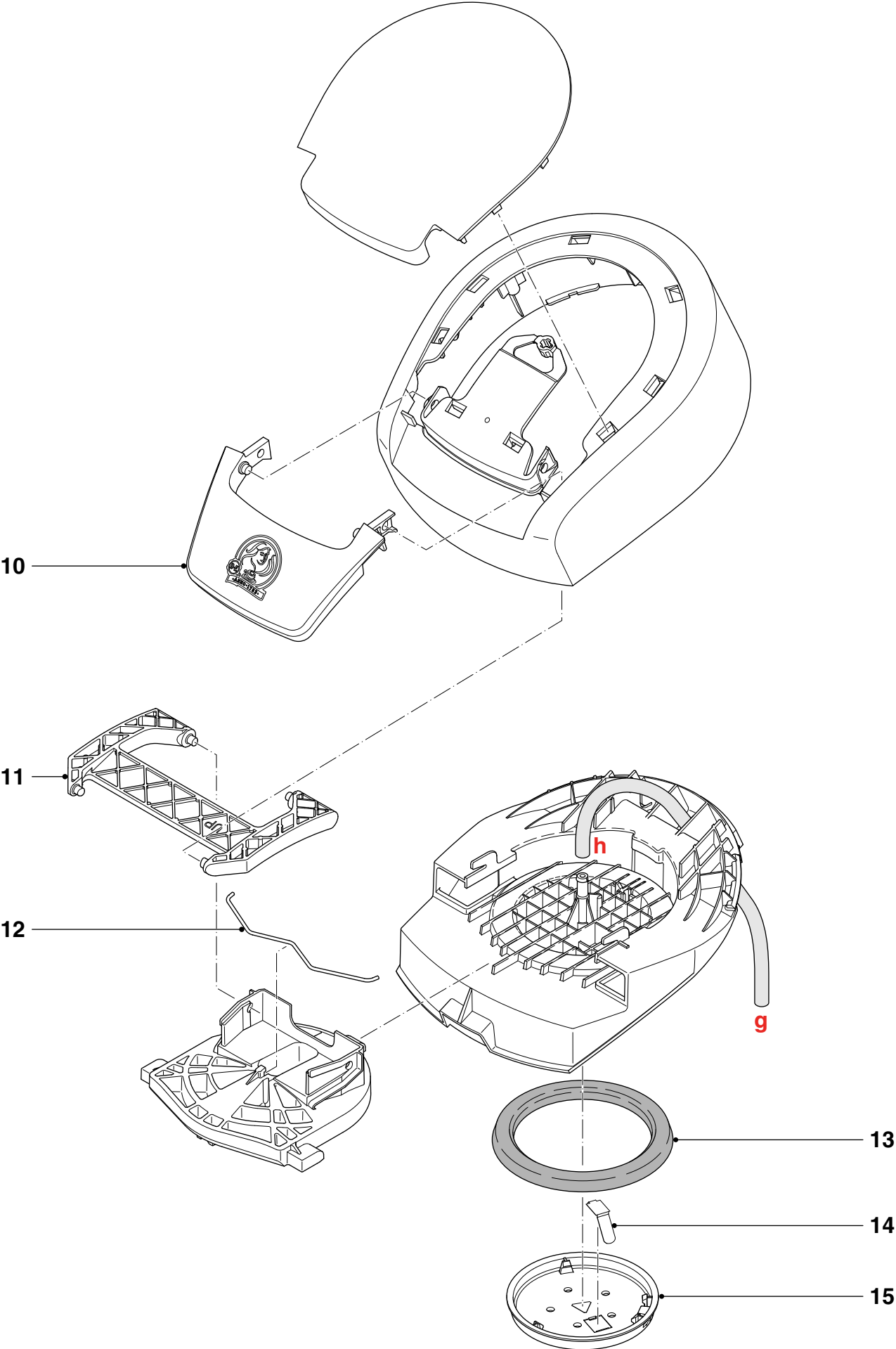
Keep the 1-cup button pressed while plugging in the power cord of the appliance.

The main switch LED will blink very rapidly for approximately 1 second.

To check if the **Boiler_empty_flag** is really set, you should reconnect the power cord a second time to the net and check if the main switch LED will blink very rapidly for approximately 1 second.

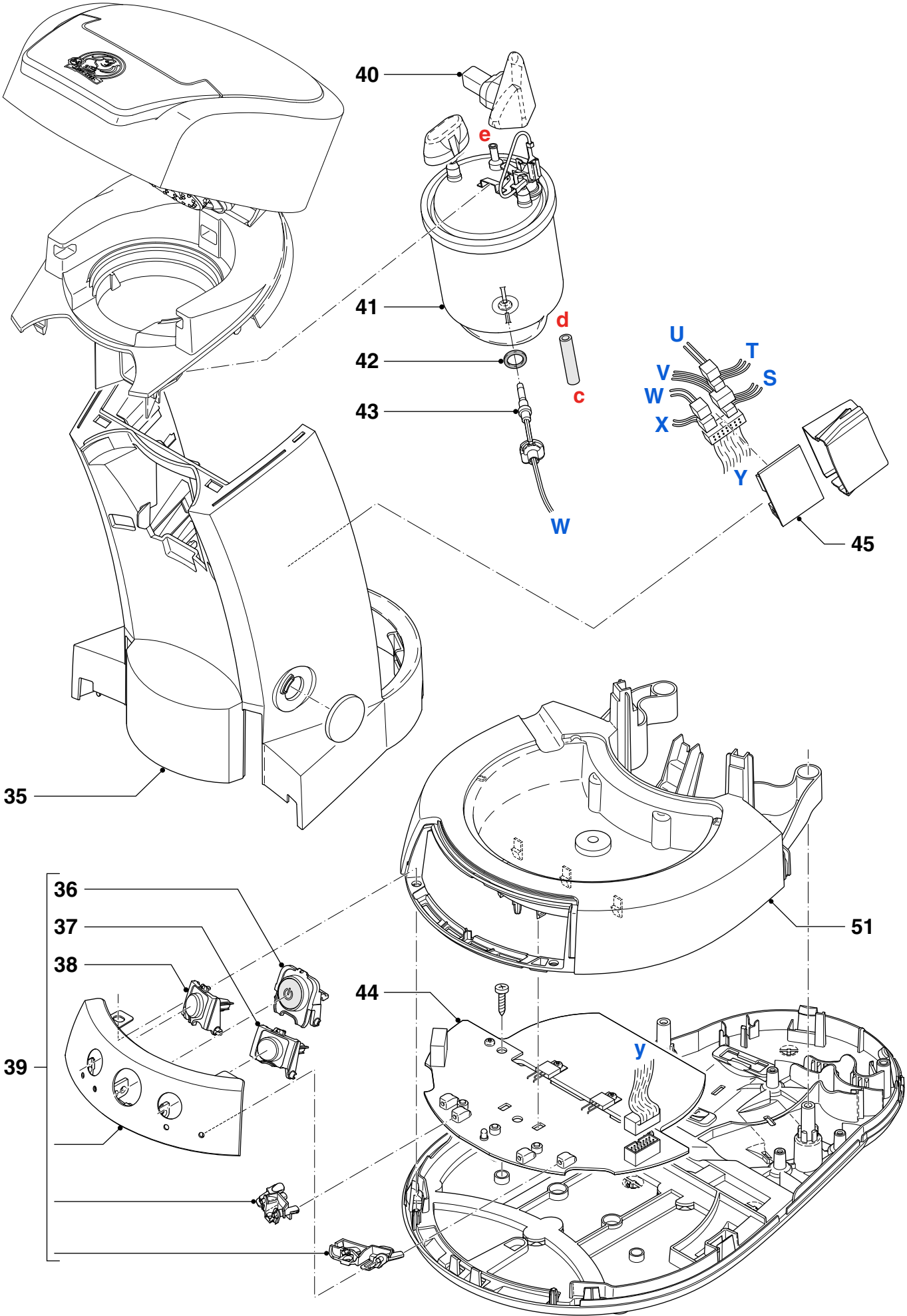
Pos	Service code	Description	Remark
1	4222 259 44210	Padholder assy 1-cup	Deep Black
2	4222 259 44220	Padholder assy 2-cup	Deep Black
3	4222 247 07261	Riser Pipe	
4	4222 259 50422	Milk container assy	Aqua Fresh
5	4222 247 06991	Drip tray cover sheet	Dark Grey
6	4222 240 00711	Drip tray cover	
7	4222 247 65781	Drip tray	Deep Black
8	4222 259 49221	Decalcification dummy assy	
9	4222 259 50442	Water container assy	Translucent dark grey
10	4222 247 58300	Lever	Dark Grey
11	4222 247 58270	Push rod	
12	4222 240 01410	Slider spring	
13	4222 247 06810	Brew chamber seal	
14	4222 240 05990	Ejector pin	
15	4222 247 41920	Distribution disk	
16	4222 247 58910	Collector	
17	4222 259 50401	Brew chamber assy	Deep Black
18	4222 247 65161	Spout housing cover	Deep Black
19	4222 247 66011	Spout lever	Deep Black
20	4222 247 60570	Spout	
21	4222 259 50902	Sensor decalcification assy	
22	4222 259 42440	Steam connecting assy	
23	4222 259 49363	Spouthousing	Deep Black
24	4222 259 50892	Sensor milk container	
25	4213 247 05250	Foot	
26	4222 259 42430	Lid switch lid close detection assy	
27	4222 259 41230	Steam pump	CEME E151
28	4222 247 58780	Valve outlet	Deep Black
29	4222 259 50831	3-Way Valve assy	
30	4222 259 41502	Backcover assy	Deep Black
31	4222 247 05510	Corrugated tube	
32	4222 259 41870	Fuse assy welded (2 pieces)	
33	4222 259 37240	Pump	ULKA HF 230 V ~50 Hz
34	4222 259 41750	Thermo block assy	
35	4222 247 57194	Housing	Deep Black
36	4222 247 66472	On/Off button	Dark Grey
37	4222 247 66462	2-cup button	Dark Grey
38	4222 247 66453	1-cup button	Dark Grey
39	4222 259 51621	UI panel assy	Black
40	4222 247 61940	TCO cap	
41	4222 259 35440	Boiler assy	V7.0 - 230 V
42	4222 247 05130	NTC O-ring	
43	4222 259 41620	NTC boiler assy	
44	4222 259 50283	Base PCB assy main	120 - 240 V
45	4222 259 50292	Interconnect PCB assy + Water level sensor	
46	4222 247 60260	T-piece	<WK1245
47	4222 259 42160	Venting valve assy	<WK1245
48	4222 259 41180	Safety valve assy	
49	4222 259 42680	One way valve	<WK1245
51	4222 247 64703	Front cover	Deep Black
	9965 100 49571	Epcos 22 nF X2 capacitor	

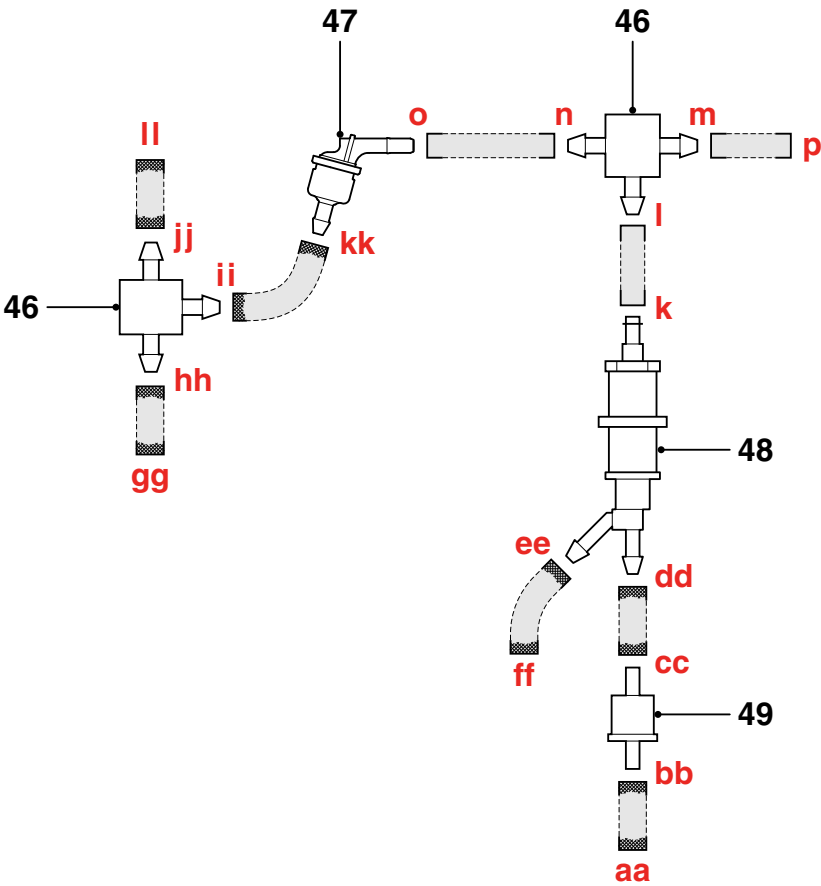




HD7853/60 /61 /62







HD7853/60/B / HD7853/61/B / HD7853/62/B per WK1245

