

Dishwasher
COMPACT
MIDI

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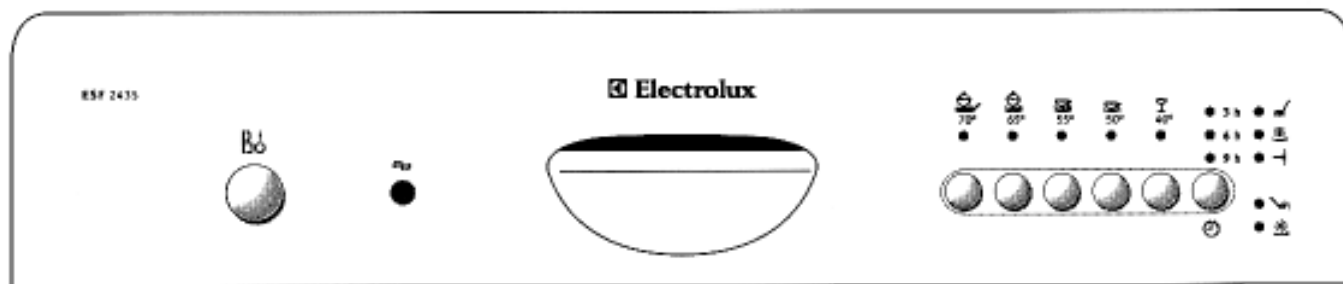
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1. Technical data / dimensions

| | |
|---------------------|---|
| Volt: | 230 V |
| Frequency: | 50 Hz |
| Heating element: | 1100 W (1000 W, UK) |
| Connected load: | 1200 W |
| Fuse required: | 10 A |
| Height: | 447 mm |
| Width: | 546 mm |
| Depth: | 480 mm |
| Noise: | 49 dB |
| Water pressures: | min. 80 KPa (0,8 bar) max. 1000 kPa (10 bar) |
| Inlet hose length: | 130 cm |
| Outlet hose length: | 130 cm |
| Cord length: | 170 cm |

2. Typical features for use

Compact dishwasher MIDI

| | |
|----------------|--|
| Wash programs: | Super wash 70, Normal 65, Energy saving 55, Quick 50, Glass 40 |
|----------------|--|

| | |
|----------|------------|
| Heating: | flowheater |
|----------|------------|

| | <i>Energie</i> | <i>Water</i> |
|----------------------|----------------|--------------|
| Super wash 70 °C: | 1,15 kWh | 9 l |
| Normal 65 °C: | 0,85 kWh | 8 l |
| Energy Saving 55 °C: | 0,63 kWh | 8 l |
| Quickl 50 °C: | 0,45 kWh | 6 l |
| Glass 40 °C: | 0,39 kWh | 6 l |

Installation water drainage

Place the discharge hose over the sink as illustrated.

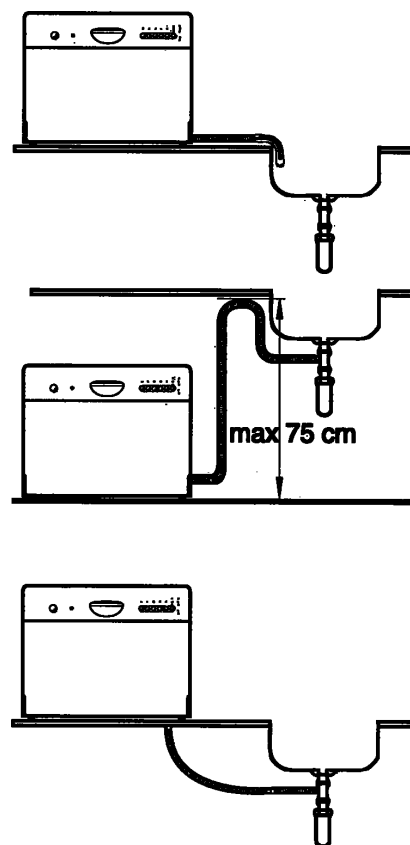
It may not at any point be higher than 75 cm over the surface which the dishwasher is standing on. If runs higher, operation of the dishwasher might be impaired.

It is also important to ensure that the inside diameter of the hose is not less than 13 mm at any point. If the discharge hose is too long it can easily be cut to the right length.

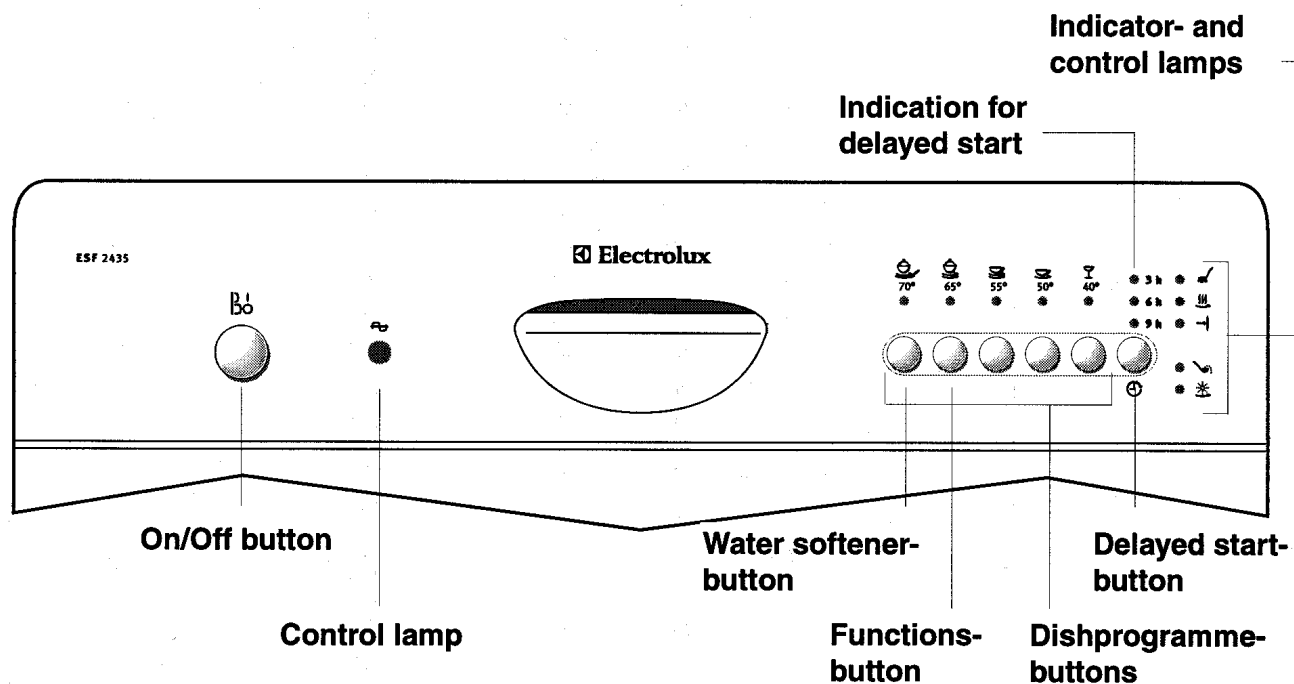
Cut the hose to a suitable length, using a sharp knife.

Fit the elbow supplied onto the end of the hose.

Max. extension of the drainhose 2 m.






3. Components In- and Output elements






Water softener- and functions button:

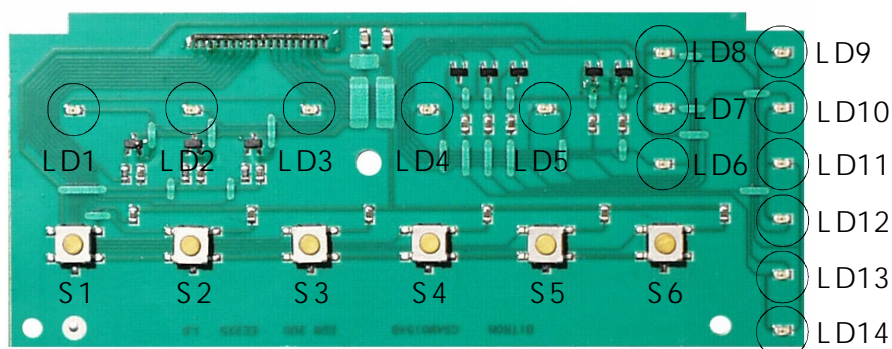
Beside start the displayed dishprogramme, you can combine these two buttons to adjust the setting of the water softener.

Indicator lamps:

- Shows
- Current section in the selected dishprogramme.
 - Dishcycle in progress  top lamp
 - Drying in progress  middle lamp
 - Programme cycle ended  lowest lamp

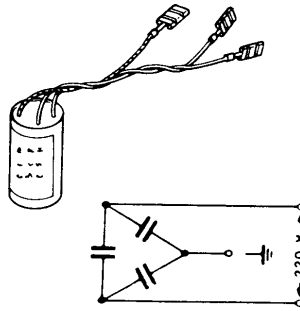
Control lamps:

- Shows that
- On/Off button is pushed in 
 - Replenishing of salt is necessary 
 - Replenishing of the rinse conditioner is necessary 



Interference Filter

The interference filter is connected in the terminal board parallel to the mains feed.



Pressure Switch

The pressure switch controls the water level. Without water, contact is opened.

| | | |
|----|-------------------------|----------|
| fN | Switch point with level | 47 mm Ws |
| | Reset point with level | 10 mm Ws |
| | Overfill | 3 l |

The pressure switch is not adjustable.



Flow Heater

The flow heater heats the water to the required temperature. During the wash cycle, water is constantly passing through the flow heater.

| | |
|--------------|--------------------------------|
| Power output | 1100 W (1000 W, UK) |
| Resistor | 49 Ω (53 Ω , UK) |
| Protector | 98 °C \pm 5 K |
| Thermal fuse | 206 °C |

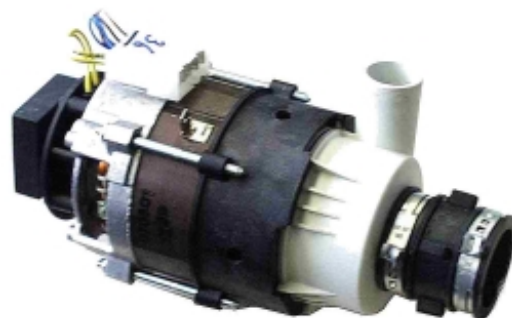


Circulation Pump

The circulation pump is driven by an asynchronous motor with an auxiliary winding. The auxiliary winding is in circuit with a 3 μF (2,5 μF , UK) capacitor. A tachogenerator is used for speed control.

There are two speeds for rinsing.

2800 1/min, 1600 1/min, Power output 80 W



Drain Pump

The drain pump is driven by a synchronous motor.

Power output 23 W.

Pump rate 10l/min.



NTC-Temperature sensor

| | |
|--|-----------------------|
| NTC-Temperaturfühler | |
| Temperature sensor NTC-resistor | |
| Temperatur/Widerstand | 25°C / 4700 Ω |
| temperature/resistor | 30°C / 3787 Ω |
| (nur bei vollelektron. | 50°C / 1695 Ω |
| Geschirrspüler) | 60°C / 1172 Ω |
| (only for fully electronic dishwasher) | 65°C / 981,7 Ω |
| | 75°C / 698,6 Ω |



Electronic

On electronic models, a micro processor controls all components, this is done using triacs. The electronic also memorizes all programme data.

The heating is switched by a relay on the electronic board.



Detergent / Rinse Aid Combination Dispenser Unit

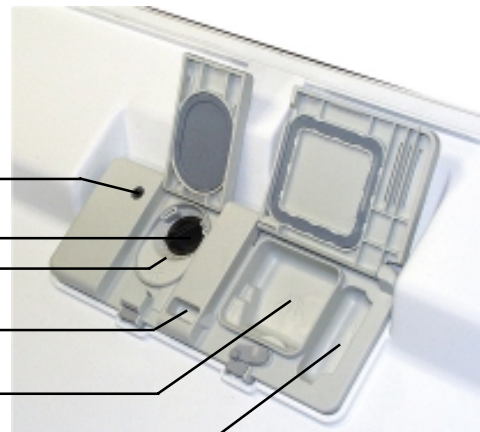
| | | |
|---------------------|----------------|-------------|
| Dosing of detergent | prewash | 10 ml |
| | wash | 20 – 30 ml |
| Dosing of rinse-aid | position 1 – 6 | 2 ml – 7 ml |
| Capacity | | 140 ml |

The detergent dispenser is activated by a release coil.

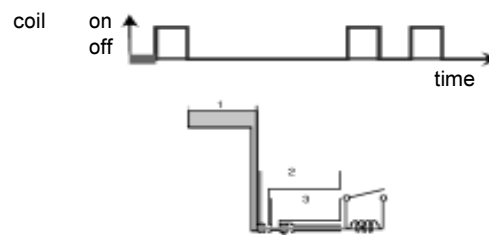
The first operation adds the detergent, and the second the rinse aid. If the door is opened, the latching bar is reset to the detergent dosage position.



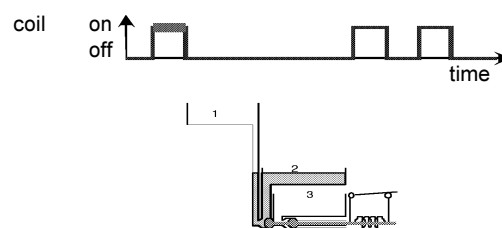
display "lack of rinse-aid"
dosing of rinse-aid
maximum filling level
outlet of rinse-aid
detergent tray
detergent tray for prewash



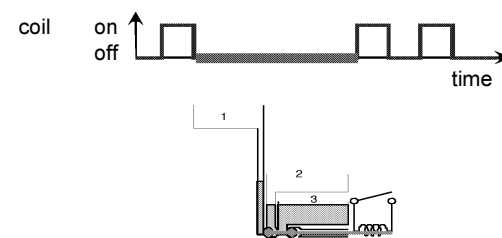
The detergent compartment 1 is filling corresponding to the set dosing quantity when the door is open. Possibly existing rinse-aid in compartments 2 and 3 flows back into the storage tank of the rinse-aid. The detergent trays are filled up. The door will be closed and the detergent for prewash will be rinsed out through the slots in the detergent dispenser cover.



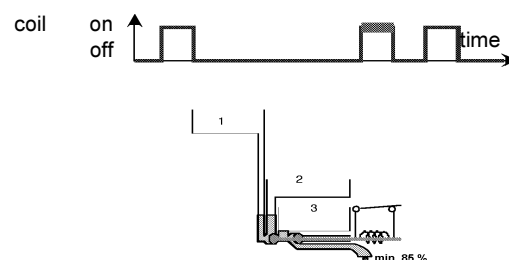
During the washing cycle the coil is switched on and the detergent compartment cover releases the detergent. The rinse-aid flows from compartment 1 into compartment 2.



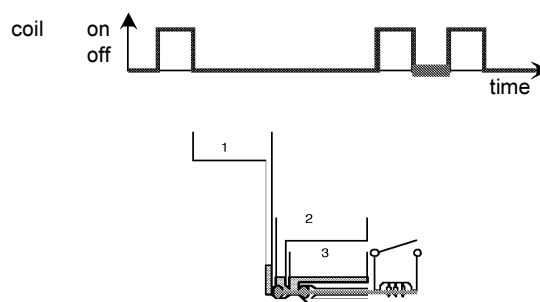
After switching off the coil, the rinse-aid flows from compartment 2 into compartment 3.



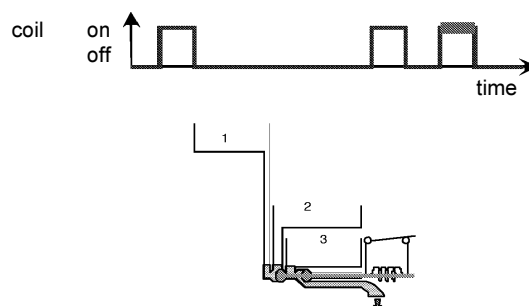
During the rinse cycle, the coil will be switched on when the rinse is warmed and the rinse-aid runs from compartment 3 into the rinse tank. At the same time, the remaining rinse-aid (15 %) runs from compartment 1 into compartment 2.



With the coil switched off, the rinse-aid flows from compartment 2 into compartment 3.



During the rinse cycle, the coil is always switched on twice. When it is switched on the second time, the remaining rinse-aid flows into the rinse tank.



Water Softening

The components required for water softening.

1. softener unit
2. regeneration dosage chamber

The incoming water flows through the softener which works according to the ion exchange principle. The ion exchanger is filled with small epoxy resin balls. The resins exchange the hardness constituents (calcium and magnesium), for sodium ions.

When all the sodium ions are used up, it is necessary to regenerate the softener. This is done by flushing a brine solution through the softener.

Afterwards the softener is washed out with fresh water and is now fully effective.

Depending on the water hardness, regeneration is only necessary after several wash cycles.

The softening system is designed for a water hardness of up to 35°dH.

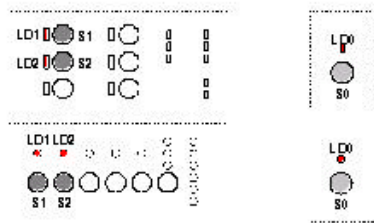


Water Hardness Settings:

 When calling service functions, generally no rinsing program may be selected!

General Information

- Setting and adjusting the water hardness range is identical with all designs and/or key arrangements.
- Always use the keys S0, S1 and S2, independently of their model-related program assignment.



Generally applicable:

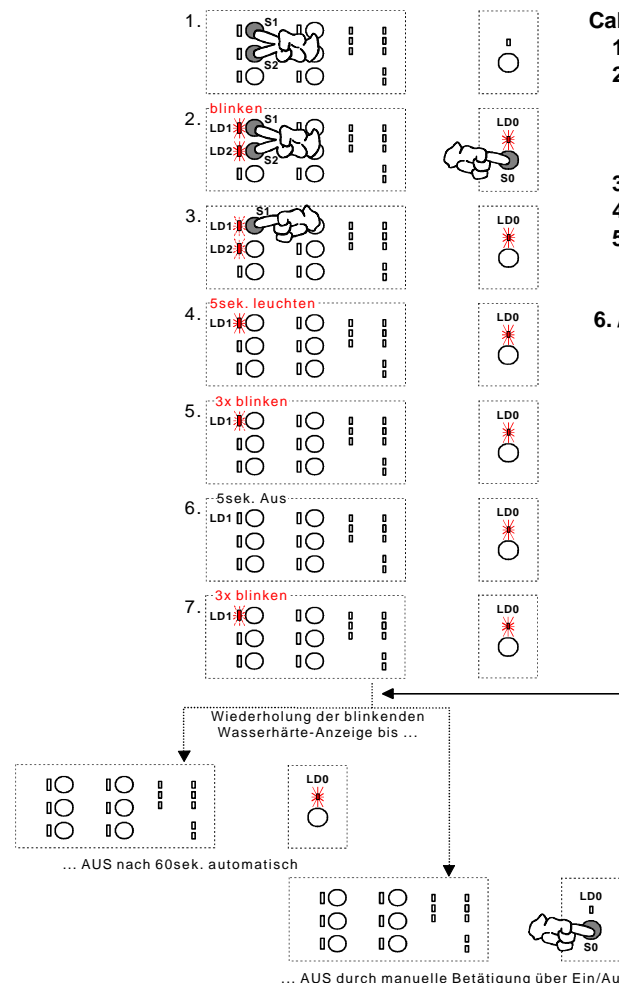
- Key S1 is ALWAYS the "Water hardness range key"
- In the works, hardness range value WH3 has been preset.
- With setting „WH1“ no regeneration is usually carried out. No adding of salt is required. Any salt LED available will not be activated.
- Table of hardness range values:

| Setting | Water hardness level | LED LD1 |
|---------|----------------------|-------------|
| WH 5 | 41 - 50 dH | 5x flashing |
| WH 4 | 30 - 40 dH | 4x flashing |
| WH 3 | 19 - 29 dH | 3x flashing |
| WH 2 | 4 - 18 dH | 2x flashing |
| WH 1 | unter 4 dH | 1x flashing |

General explanations to key LED LD2* :

- This key LED goes on or flashes only if the function "Rinsing agent stop" is programmed on a certain machine model.
- If the backlit function is not available on a certain model, the respective LED is switched off in the mode Service Functions.

Calling / Modifying / Storing the Hardness Range Value



Calling the function "Water hardness settings"

- Press keys S1 and S2 simultaneously and ...
- ... Keep them pressed until the machine is switched on with the ON/OFF key S0. For acquittal, the respective key LED's LD1 and LD2* are flashing (LD2* is only flashing if rinsing agent stop has been programmed - see explanation opposite)
- Press the key S1 in order to call the water hardness function.
- The acquittal LED LD1 lights up for 5 seconds.
- Now the hardness range setting is displayed by the key LED LD3 flashing:
(In the example left, WH3 is displayed by 3 times flashing)
7. This LED will then go dark for about 5 seconds ...
The operation is repeated on display for a maximum of 60 seconds.
(3x flashing – 5 sec pause – 3x flashing – 5 sec pause – etc.)

Changing the preset hardness

- Press the key S1 to modify the hardness range. The value is increased in rotating manner.
- After pressing the key, the key LED LD1 will go dark for about 3 seconds.
- The new value is then displayed by coded flashing of LED LD1.

Further sequence as described under 6./ 7.
Any pressing of the key S1 will increase the hardness range rotatively. (WH1, WH2 ... WH5, WH1, WH2, ...)

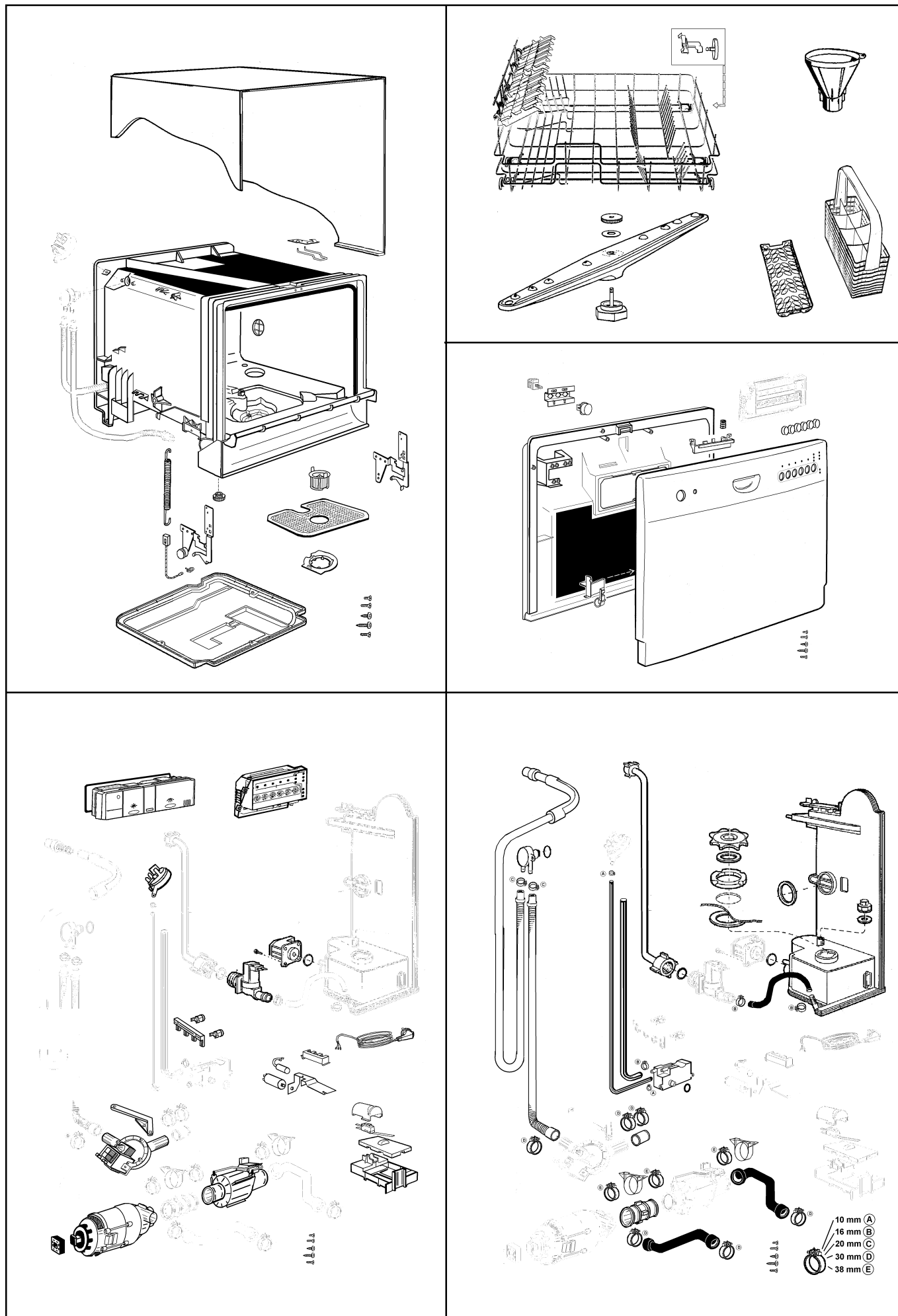
Storage of the water hardness settings

The hardness range selection is stored immediately upon each single input.

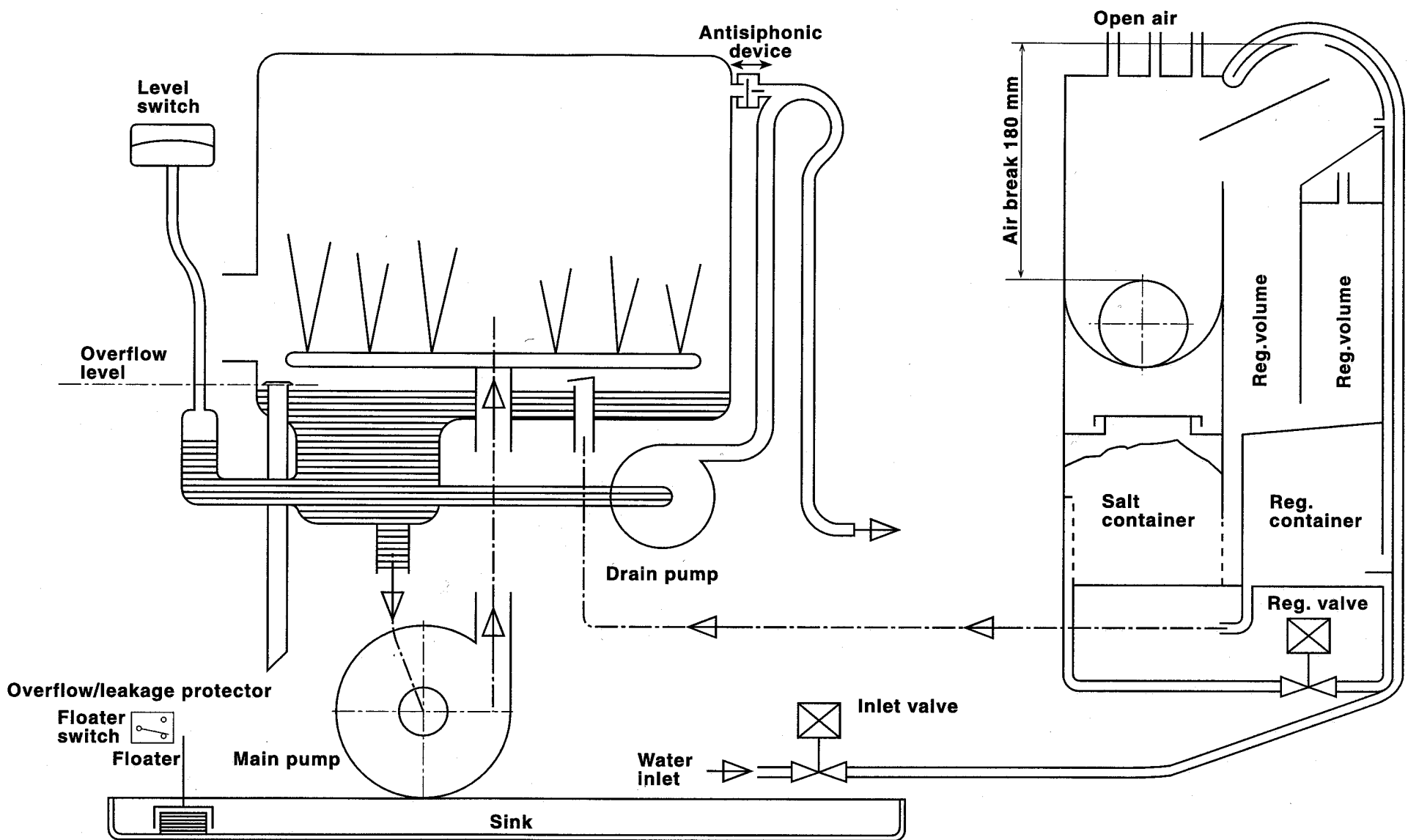
Exiting the function

After 60 seconds after the last pushbutton operation on key S1 or by switching the machine off by use of the ON/OFF key S0, you automatically leave the special program.

4. Position of components



5. Water Course Scheme



6. Leakage Protection

The anti-flood switch in the base tray will activate the drain pump and drain the water from the tub in the event of an internal leakage.

If the float switch is activated, all electric components are switched off except the drain pump.

Overflow protection

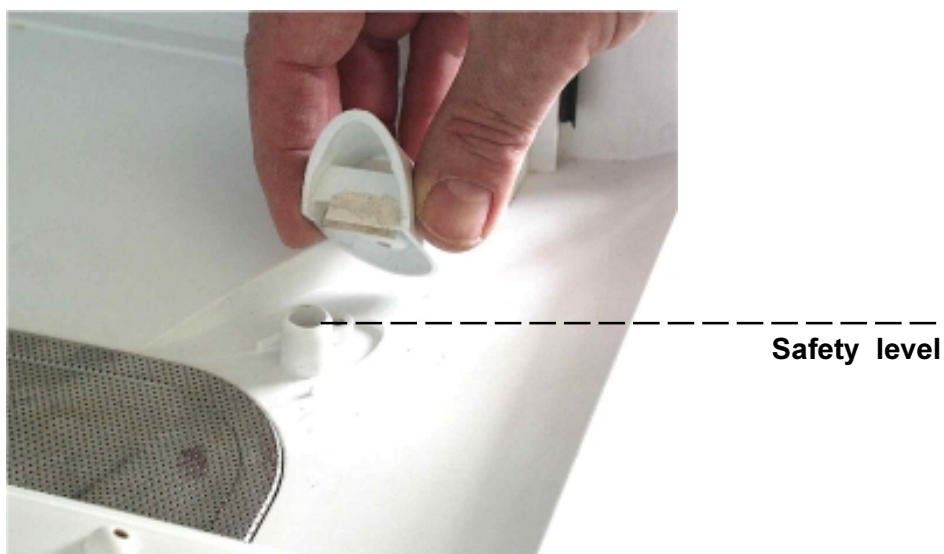
The filling phase fills up to the level, monitored by a pressure monitor. If the pressure monitor does not switch in, this filling phase is generally limited electronically to 2 minutes.

If the pressure monitor has not switched in by then, the electronics jump to the error mode "shut off tap", and the program is stopped.

If the pressure switch switches back during the cycle, a maximum of 10 sec. further filling is possible. If the pressure monitor has not switched in by then, the electronics jump to the error mode "shut off tap", and the program is stopped.

Safety level

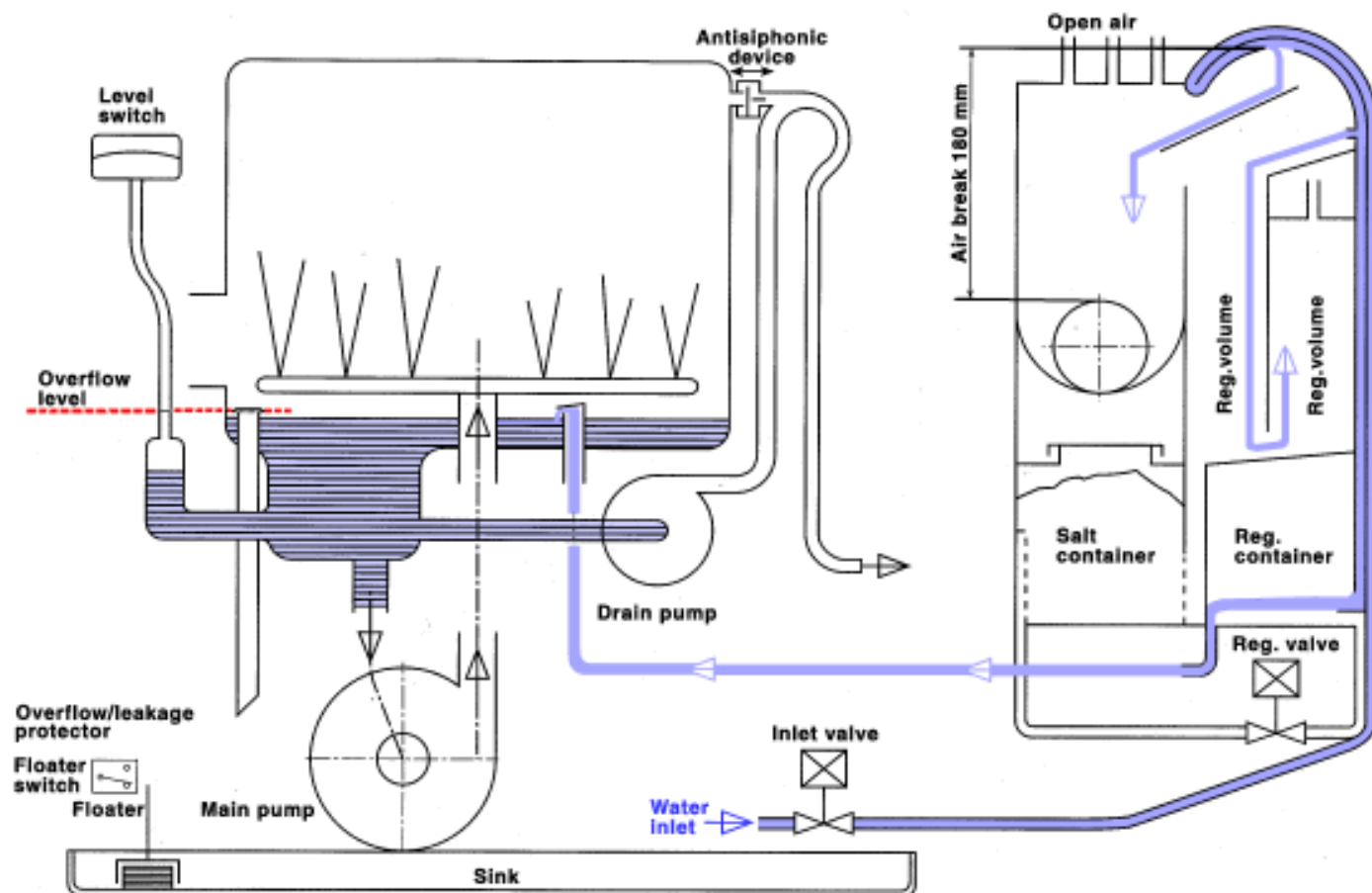
If the safety level is reached by over-filling more than approx. 3 litres, floater switch starts the drain pump.



7. Water Inlet

The water flows into the regeneration dosage chamber via inlet valve, over air break, into regeneration dosage chambers and into softener

The level control chamber built into the sump operates the pressure switch.



8. Static filling

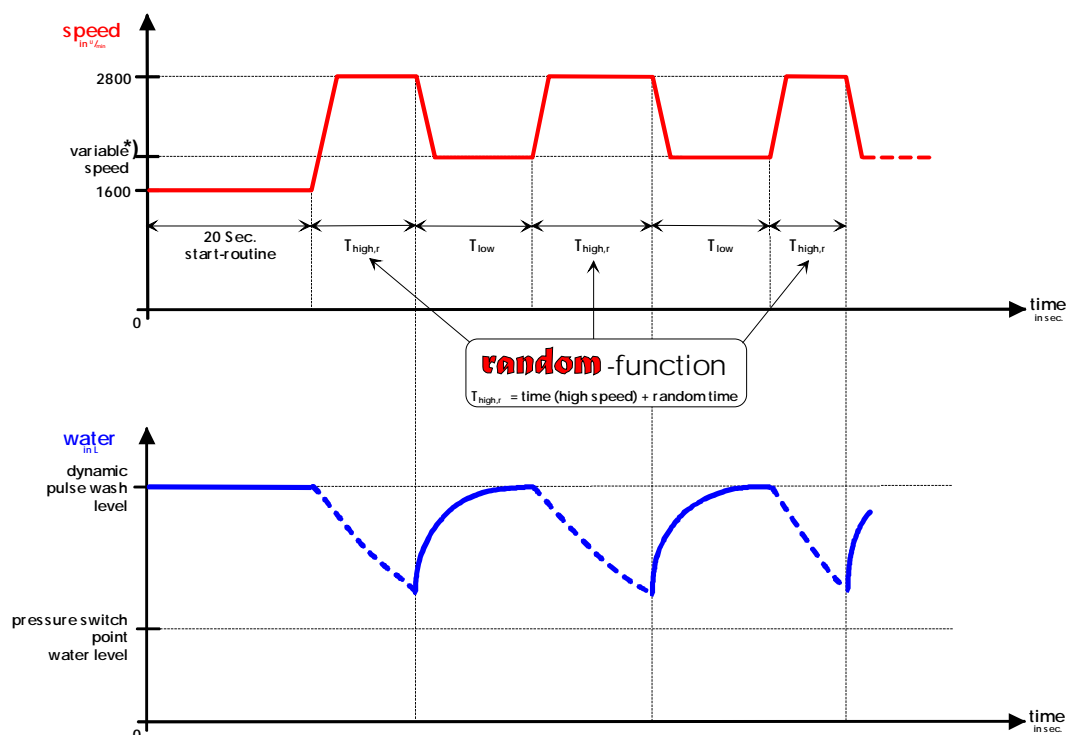
- Static filling until pressure switch point.

failure code:

If this point isn't reached after max. 2 minutes, a failure code is displayed and the program is stopped. The program phase display PPD-LED LD9 is blinking.

- LD9
- LD10
- LD11

9. New pulse wash with „random“ functionality



*) The variable speed is 1600 1/min at the moment and equal to all appliances.

$$\begin{aligned} T_{high,r} &= T_{high} + T_r \\ T_{low} &= T_{high,r} \times \text{Ratio} \end{aligned}$$

Random function

| | | |
|--------------|---|---|
| $T_{high,r}$ | = | time for high speed (calculated with random funktion) |
| T_{high} | = | time for high speed (cycle definition) |
| T_r | = | random time |
| T_{low} | = | time for low speed |
| Ratio | = | factor for low speed (eeprom definition) = 5 |

Circulation

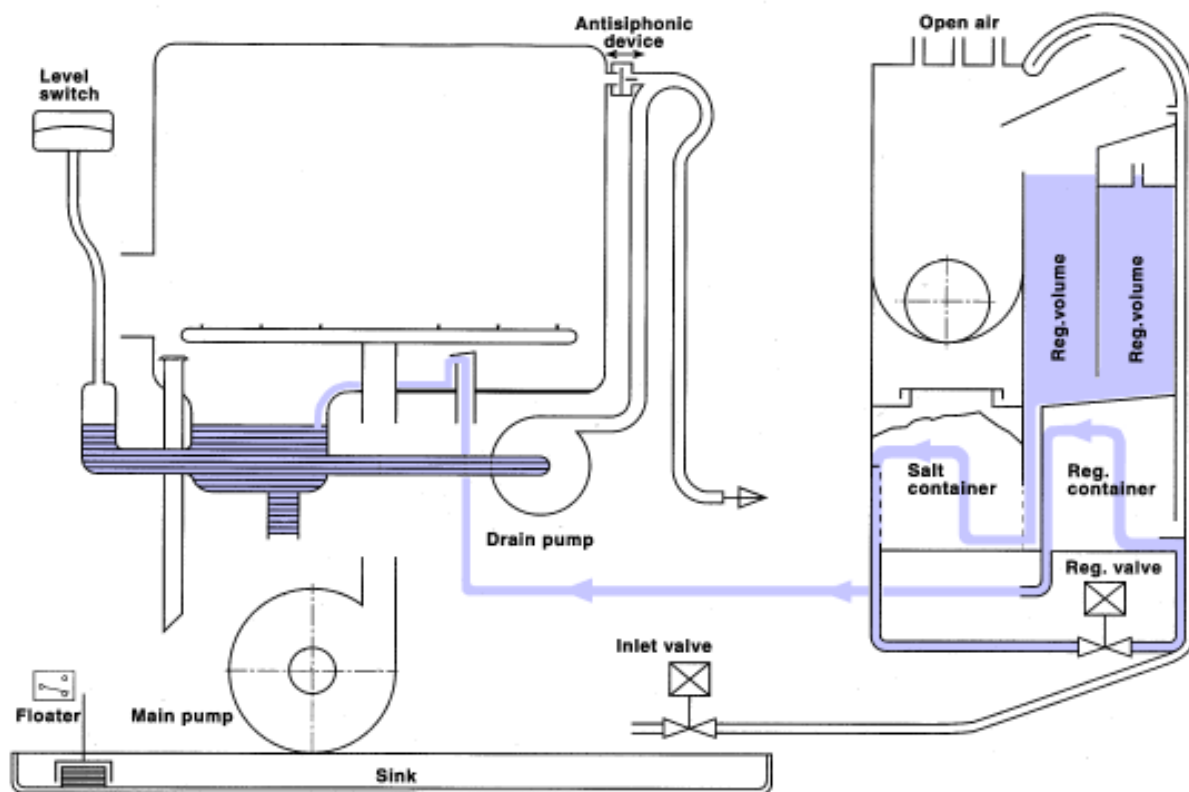
The circulation pump pumps the water simultaneously into the ceiling shower and into the spray arm. The water is filtered in the sieves and led to the circulation pump.

Function of the new pulse wash with “random” functionality

After the filling steps, the circulation pump is running at two rotational speeds.

| Pulse Wash | Pulse time 2800 1/min | | Pause 1600 1/min | | Use with Wash Cycles |
|------------|-----------------------|---------------|------------------|---------------|----------------------------|
| | Definitive Time | + Random Time | Definitive Time | + Random Time | |
| 1 | 0.9 sec | 0 - 0.3 sec | 4.5 | 0 - 1.5 sec | prewash intensive |
| | | | | | wash intensive |
| 2 | 0.6 sec | 0 - 0.3 sec | 3 | 0 - 1.5 sec | wash and intermediate wash |
| | | | | | prewash normal |
| 3 | 0.3 sec | 0 - 0.3 sec | 1.5 | 0 - 1.5 sec | rinse |

The ratio of pulse time and pause is always 1 : 5.



12. Regeneration

The water chamber for regeneration contains 350 ml water. During regeneration, the regeneration valve is energized. The 350 ml water runs into the salt container and mixes with the salt to form a brine solution. In the top of the salt container there is an opening with a small filter, from here the brine solution enters the softener where the resins are regenerated.

The softener has 5 settings and can be adjusted to suit the degree of water hardness.

The adjustment of the water hardness is described in the short list of service functions.

Table for water hardness adjustment

| Adjustment | Water hardness | number of water loads | Opening hour for regeneration valve time |
|-------------------------------------|----------------|-----------------------|--|
| WH 1 <small>no regeneration</small> | < 4°dH | 60 | 180 Sek. |
| WH 2 | 4 - 12°dH | 16 | 180 Sek. |
| WH 3 | 12 - 18°dH | 8 | 180 Sek. |
| WH 4 | 18 - 24°dH | 6 | 180 Sek. |
| WH 5 | > 24°dH | 0 | 180 Sek. |

This table is stored in EEPROM. Therefore the values are changeable by variant configuration. The values on the left specify the actual status and shall only be seen as an example for this documentation.

- Column „Number water loads“ contains the value, when the regeneration will be run.
 - o With each dynamic filling step during the cycle, the counter is increased by 1. A possible refilling is not taken into consideration.
 - o If the value in the table, linked to the adjusted water hardness, is reached, the regeneration is activated. At the water hardness WH5 regeneration is done each cycle (counter is not active).
 - o In all machines, at the end of the program a 50 seconds draining of regeneration water is run.

11. Rinse out after regeneration

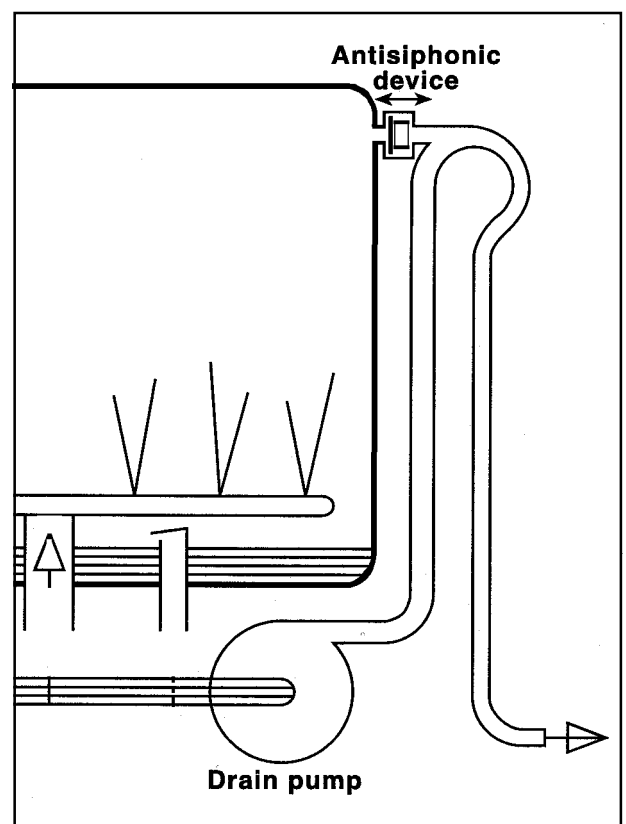
| | |
|----------------|---------|
| pump | 30 sec |
| 1. fill & pump | 8 sec. |
| pump | 15 sec. |
| 2. fill & pump | 8 sec. |
| pump | 15 sec. |
| 3. fill & pump | 8 sec. |
| pump | 30 sec. |

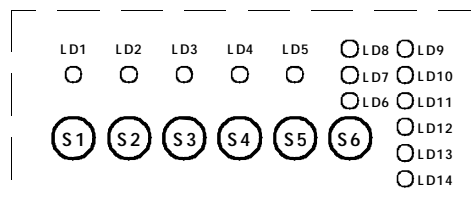
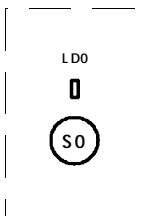
Regeneration takes place after the rinsing process, as the final step. Rinsing out then follows automatically with the start of the next wash program.

The pumping off stage usually takes about 50 seconds.

Antisiphonic device

If the end of the take-off hose is below the level of the water in the wash space, a siphon effect is possible, that is, the machine runs empty. This is avoided by the ventilation through the anti-siphon valve.





Horizontal position of buttons

| Function | Activation of base function | | | | Choose resp. Start of function | | | | Short-description / Comment | | |
|---|--|---|---|---|--------------------------------|---|---|---|--|--|--|
| | with button(s) | | LED - display | | with button(s) | | LED - display | | | | |
| Choose water hardness | <u>S1</u> + <u>S2</u> then afterwards <u>S0</u> (On/Off) | → | <u>LD1</u> highlighted 5sek. Afterwards display of actual adjusted hardness by blinking | → | <u>S1</u> | → | <u>LD1</u> highlighted 5sek. Afterwards display of new adjusted hardness by blinking Code | → | (chapter "Adjust water hardness") | | |
| | | | | → | | | | → | | | |
| Activation of single actuators | <u>S2</u> + <u>S3</u> then afterwards <u>S0</u> (On/Off) | → | <u>LD1</u> + <u>LD2</u> + <u>LD3</u> blinking | → | <u>S2</u> | → | <u>LD2</u> blinking | → | <div><div><div>valve 20sek.</div><div>dispenser 60sek.</div><div>circulation pump 60sek.</div><div>heating 20sek.</div><div>reset-valve 60sek.</div><div>regener. dos. 60sek.</div><div>drain pump 60sek.</div><div>all OFF</div></div><div><div><div><div>○ LD9</div><div>○ LD10</div><div>○ LD11</div></div><div>→</div><div><div>● LD9</div><div>● LD10</div><div>○ LD11</div></div><div>→</div><div><div>○ LD9</div><div>○ LD10</div><div>○ LD11</div></div><div>→</div><div><div>● LD9</div><div>○ LD10</div><div>● LD11</div></div><div>→</div><div><div>○ LD9</div><div>● LD10</div><div>○ LD11</div></div><div>→</div><div><div>○ LD9</div><div>○ LD10</div><div>● LD11</div></div><div>→</div><div><div>○ LD9</div><div>○ LD10</div><div>○ LD11</div></div></div><div>continue per hand activation.</div><div>DGH-variants 60sek. break</div></div> (chapter "Single actor aktivation")</div> | | |
| Display Service failure memory | <u>S2</u> + <u>S3</u> then afterwards <u>S0</u> (On/Off) | → | <u>LD1</u> + <u>LD2</u> + <u>LD3</u> blinking | → | <u>S1</u> | → | <u>LD1</u> blinking | → | The failure is displayed coded by the PPD-LEDs. The stored failures can be scrolled through, by pressing button <u>S1</u> . (see description "Indication of customer service failure stack" and "Overview of failure displays") | | |
| Delete Service failure memory Display test | <u>S2</u> + <u>S3</u> then afterwards <u>S0</u> (On/Off) | → | <u>LD1</u> + <u>LD2</u> + <u>LD3</u> blinking | → | <u>S3</u> | → | 3 times short activation of all available LEDs with 2 sec Pause inbetween | → | The customer service failure stack was delete (chapter "Delete the customer ...") | | |
| Stop the function | All service and after sales functions can only be stopped by switching the machine of with the On/Off switch S0. Except: Water hardness adjust - Function is also terminated by a 60sec timeout after the last activation of button <u>S1</u> . Clear failure mem | | | | | | | | | | |

24. Overview of failure displays

| Failure | Display PPD - LED's | Failure display visible for customer | Visible in failure memory (After sales) | Short description | What happens? |
|---|--|--|---|---|--|
| Closed water tap | <input checked="" type="radio"/> LD9 <input type="radio"/> LD10 <input type="radio"/> LD11 | yes blinking | yes highlighted | Timeout for filling - Failure recognised if ... 1) ... after 2 min of static filling ... 2) ...during 10 sek static refilling... ... the switch point of the pressure switch wasn't reached. | Progr.-LED blinking. Program stopped. After removing the failure, the program can be continued bei pressing button <u>S0</u> (OFF-ON). |
| Drain pump | <input type="radio"/> LD9 <input checked="" type="radio"/> LD10 <input type="radio"/> LD11 | yes blinking | yes highlighted | Pressure switch didn't reach the switch back after 2 drain cycles. | Progr.-LED blinking. Program stopped. After removing the failure, the program can be continued bei pressing button S0 (OFF-ON). |
| Aqua-Control | | | | Electronic display no signal, pump works Floating switch detects water in the bottom tray (Debounce time 2sec.) | Program interrupted. |
| Heating | <input type="radio"/> LD9 <input type="radio"/> LD10 <input checked="" type="radio"/> LD11 | no | yes highlighted | Target temperature not reached after a timeout of 45 min. (Only possible in temperature controlled heating steps) | Program is terminated without activation of the heating element! All heating steps last 45min in general. |
| NTC-Sensor | <input checked="" type="radio"/> LD9 <input type="radio"/> LD10 <input checked="" type="radio"/> LD11 | no | yes highlighted | NTC short circuit or interrupt. The NTC is controlled between the 1st filling and the start of the drying cycle | Program is terminated without activation of the heating element! All heating steps last 45min in general. |
| | | | | | |
| Circulation pump Triac short circuit | <input checked="" type="radio"/> LD9 <input checked="" type="radio"/> LD10 <input checked="" type="radio"/> LD11 | yes blinking | yes highlighted | Signal from tachometer is recognised, although the circulation pump isn't activated. | The program is interrupted and water filled till the switch oint of the pressure switch. By pressing the button S0 (OFF-ON), the program can be restarted. (Failure repeatedly occurring ð Service call) |
| Wrong variant programming | no display | no | no not possible | Checksum in EEPROM not correct. Only recognised after switching ON. | No program selection possible On/Off-lamp (<u>LD0</u>) on |

16. Programs and options

| programs | | Super Wash | Intensiv 65/70° | Normal 65° | Bio 50/55° | Energy-saving | ECO 65° | ECO Bio 50/55° | Eat load + run | Quick 50° | Quick 40° | Pre wash | Safety test |
|-------------------------|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|----------|-------------|
| pre wash | temperature | 55°C | 50°C | | | | | | | | | | |
| | time after temperature | $\Delta T + 10$ | $\Delta T + 5$ | $\Delta T + 6$ | $\Delta T + 8$ | $\Delta T + 8$ | | | | | | 8 | |
| | wash type | ctrl | ctrl | ctrl | pulse_2 | pulse_2 | | | | | | pulse_1 | |
| | total time | 24 | | 9 | | 10 | | | | | | | |
| main wash | temperature | 50°C | 50°C | 50°C | 55°C | 56°C | 65°C | 55°C | 14 min. 65°C | 50°C | 40°C | | 70°C |
| | time after temperature | $\Delta T + 7$ | $\Delta T + 2$ | $\Delta T + 4$ | $\Delta T + 12$ | $\Delta T + 41$ | $\Delta T + 10$ | $\Delta T + 12$ | | | | | |
| | temperature | 70°C | 70°C | 65°C | | | | | | | | | |
| | time after temperature | $\Delta T + 14$ | $\Delta T + 10$ | $\Delta T + 12$ | | | | | | | | | |
| | wash type | ctrl | ctrl | ctrl | pulse_2 | pulse_2 | pulse_2 | pulse_2 | ctrl | ctrl | pulse_2 | | ctrl |
| | total time | 40 | | 37 | | 60 | | | | 14 | 10 | | 10 sec |
| first rinse | temperature | 4 min. 65°C | | | | | | | | | | | |
| | time after temperature | | 5 | 5 | 5 | 5 | 5 | 5 | | 5 | 5 | | |
| | wash type | ctrl | pulse_2 | pulse_2 | pulse_2 | pulse_2 | pulse_2 | pulse_2 | | pulse_2 | pulse_2 | | |
| | total time | 6 | 8 | 6 | | | | | | 6 | 6 | | |
| second rinse | temperature | 4 min. 65°C | | | | | | | | | | | |
| | time after temperature | | 5 | | | | | | | | | | |
| | wash type | ctrl | pulse_2 | | | | | | | | | | |
| | total time | 6 | 8 | | | | | | | | | | |
| hot rinse | temperature | 70°C | 70°C | 70°C | 70°C | 15 min. 68°C | 65°C | 65°C | 9 min. 70°C | 55°C | 65°C | | |
| | time after temperature | $\Delta T + 1$ | $\Delta T + 1$ | $\Delta T + 1$ | $\Delta T + 1$ | $\Delta T + 1$ | $\Delta T + 1$ | $\Delta T + 1$ | | $\Delta T + 1$ | $\Delta T + 1$ | | |
| | wash type | pulse_2 | pulse_2 | pulse_2 | pulse_2 | pulse_2 | pulse_2 | pulse_2 | pulse_2 | pulse_2 | pulse_2 | | |
| | total time | 17 | | 19 | | | | | | 14 | 15 | | |
| drying | total time | 13 | | 13 | | 54 | | | | | | | 14 sec. |
| total time incl. drying | | 112 | | 92 | | 150 | | | | | | | 24 sec. |

Legende

ctrl = constant speed 2800 rpm

pulse_1 = 3"/4" 1600 rpm + 0,9" 2800 rpm

pulse_2 = 3"/4" 1600 rpm + 0,6" 2800 rpm

$\Delta T + Y$ = fixed time "Y" after reaching of temperature

26. Description of the options

Option half load

- Chooseable to all programs, except „Prewash“
- If the chosen program has a phase „prewash“, this phase is skipped.
- The speed of the circulation pump is reduced in the filling step.
- Reduction of average time are 28 minutes by intensiv programmes, 18 minutes by programmes. The water consumption is reduced about 5 liters.

Option rinse +

- Chooseable to all programs, except „Prewash“, „Quick“- , „Glass“-program and „Energysaving“
- An additional prewash phase is added to the program cycle.

Option superwash

- Chooseable to all programs, except „Prewash“, „Quick“- , „Glass“-program and „Energysaving“
- Changes in the prewash phase (not available in Eco 65° and Eco Bio 50°)
 - o hot prewash with higher temperature. Temperature is increased from 40°C to 55°C.
 - o Two soaking phases of 5 minutes duration are added to the cycle. Inbetween these phases the circulation pump is activated for a short time. In this soaking phases, the soil is softened and comes off.
 - o Additional prewash time of total 7 minutes is added. During this time the temperature is kept on 55°C by enableing re-heating.
 - o The duration of the program phase „prewash“ is increased with this option by 18-20 minutes
- Changes in the cleaning phase.
 - o Additional 6 minutes of cleaning, with heating to max. 55°C
 - o Additional 20 minutes cleaning with a controlled temperature of 70°C (resp. 65°).
 - o The duration of the program phase „cleaning“ is increased with this option by approx. 26 minutes.
- This option doesn't influence the program cycle in the phases „hot rinse“ and „drying“. In the program „Normal 65°C“ an additional 2nd intermediate rinse is run, as already available in the Intensive program.

Option reduce / increase temperature

- Chooseable to all programs, except „Prewash“, „Quick“- , „Glass“-program and „Energysaving
- Important!
Per device, it is only possible either to increase or to decrease the temperature by an option button. This has to be carefully watched when building variants!
- This option exclusively influences the temperatures in Prewash and Cleaning. The temperature in Hot Rinse remains unchanged.
- The value for temperature in- or decrease is stored in EEPROM and therefore changeable for different variants.

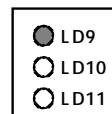
Option tablet program

- Chooseable to all programs, except „Prewash“, „Quick“- and „Glass“-program
- To better dissolve the tabs, and additional temperature step of 40°C is added in the cleaning phase.
- Due to this, the time of this phase is increased by approx. 5 minutes.

27. Rinse, resin wash, regeneration and measure

rinse

- Always when activating the circulation pump and/or the interheater, refilling of water is enabled.
 - o But the maximum refill time is limited to 10 seconds.
 - o Exceeding this limit causes a failure code display and the program cycle is stopped.
PPD-LED LD9 is blinking.



measure to cleaner and rinse aid

- The activation times of the dispenser were optimised with the EDW1000:
 - o In program phase „cleaning“
30 seconds ON
 - o In program phase „hot rinse“
30 seconds ON / 30 seconds OFF / 30 seconds ON
The dosage of rinse aid is temperature controlled at a minimum of 50°C.

Service tips

You need
screwdriver
Torx TX20



Replacement of the components within the door.

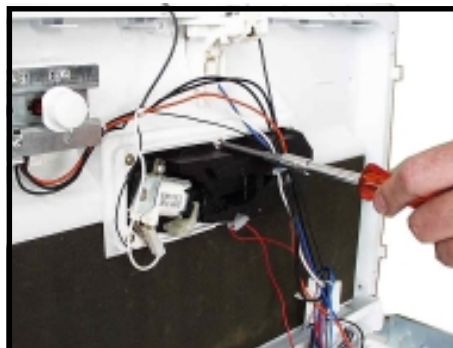
Remove the screws from the frame.

Carefully unclip the front of the door.

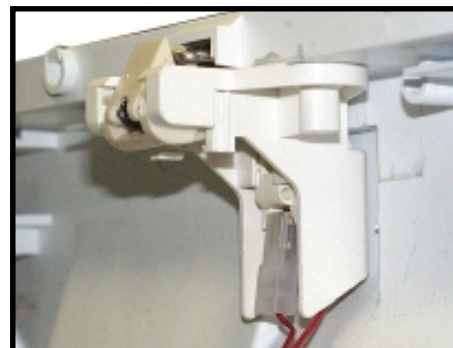
Before finally opening, unclip the on/off LED.



The electronics can then be snapped out.



The dosing unit is held by screws.



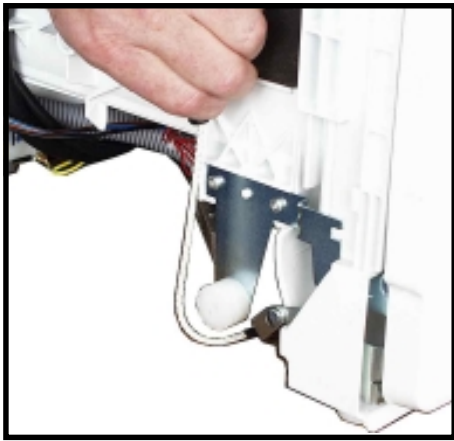
After removing these screws,
the components can be
removed from the door breach.



After removing the spring, the
door-opener can be removed
from its hinges.

Re-assembly is carried out in
the reverse order.

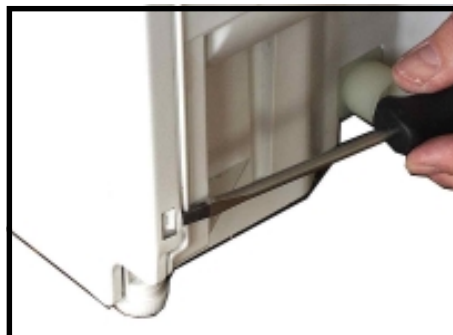




Replacement of the door hinge.

After slackening, the door spring is removed from its hinges together with the deflection band.

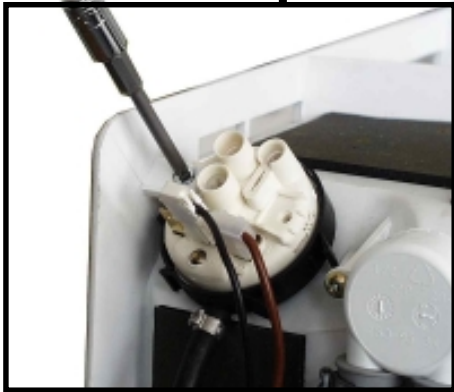
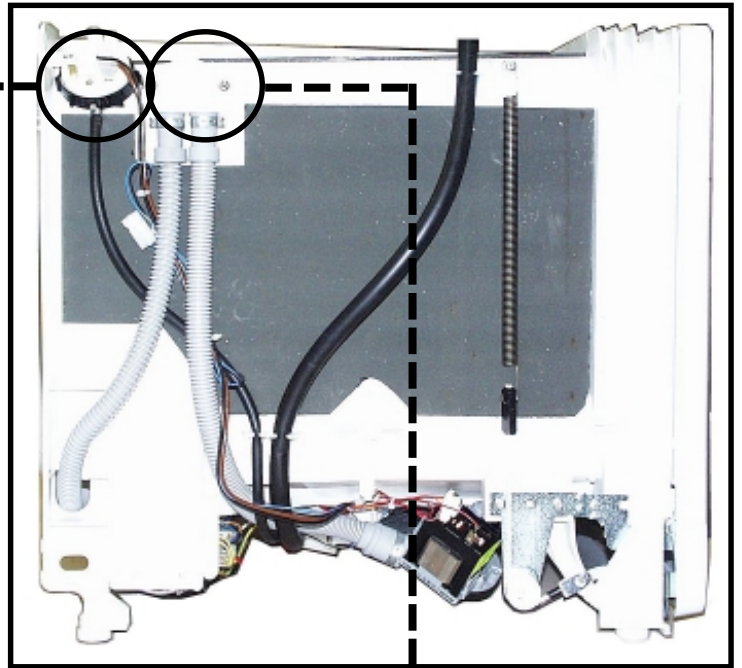
After removing the screws on the chassis and on the door-frame, the door hinge can be removed.



Housing

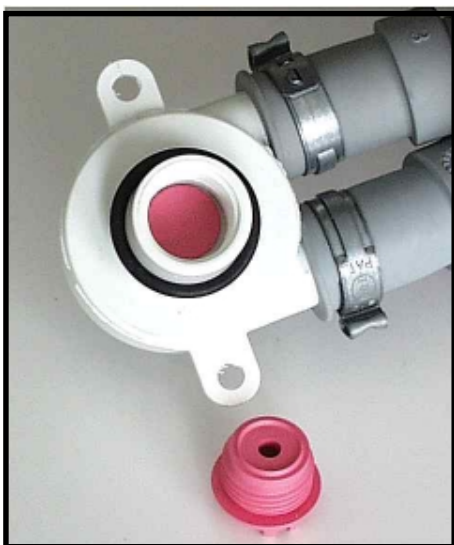
After removing the housing screws (lay the machine on its side) from the bottom of the machine, the housing is unclipped front and back from the catches and can be removed.



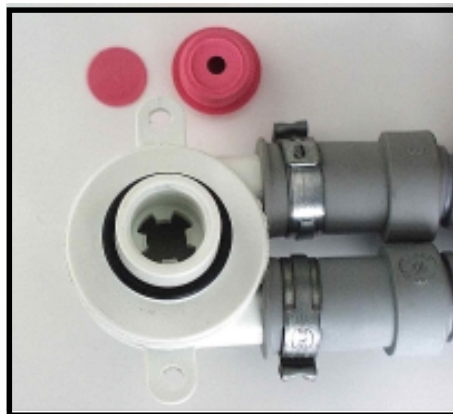


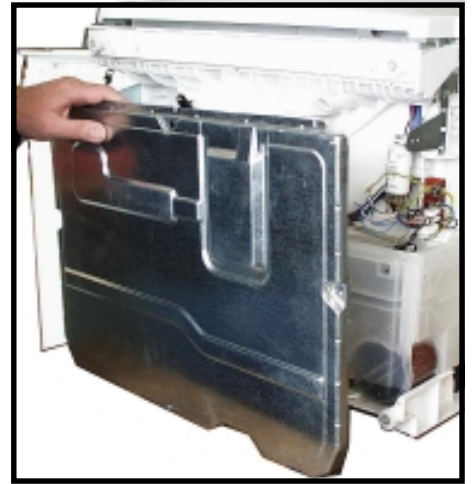
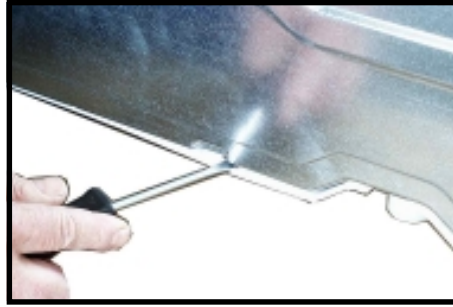
The **pressure monitor** is simply unscrewed.

The outlet hose ventilation can be unscrewed for cleaning when necessary, in case these rubber parts in the interior of this valve become dirty or stuck because of residues.



The air should be able to enter the hose from the holder - not the other way around!

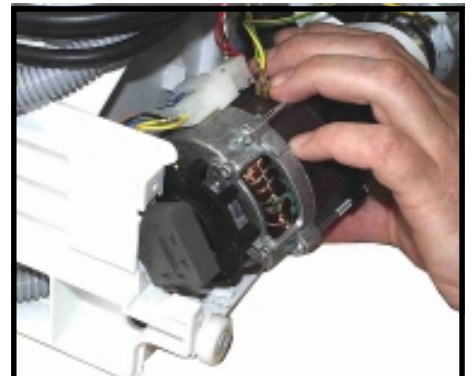
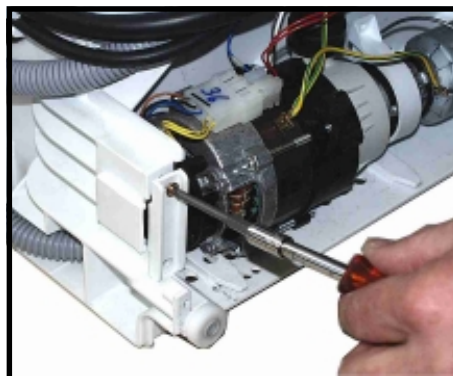
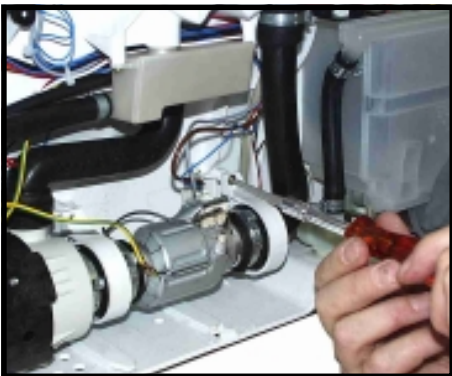
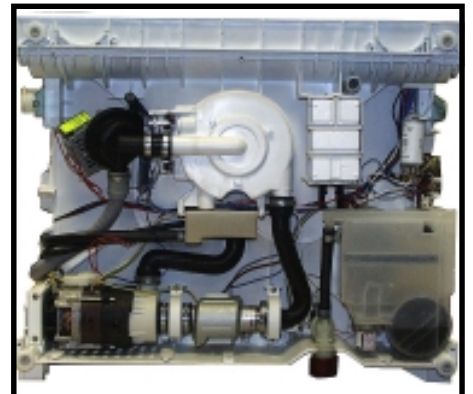




The floor of the machine is held with screws at the front, and clipped in at the back.

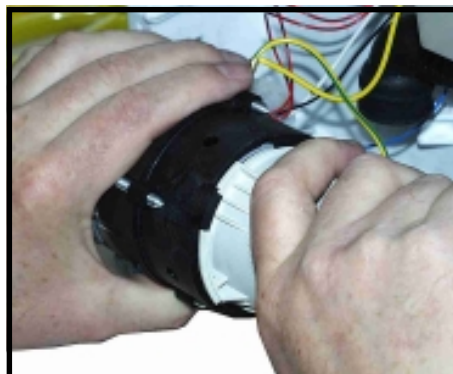
It contains the bosses for the overflow water and the flooding switch.

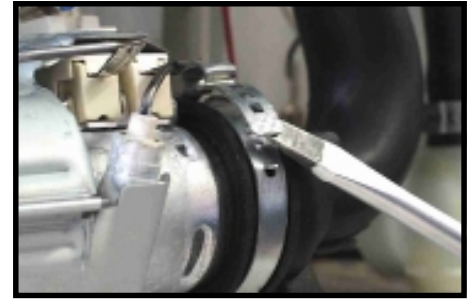
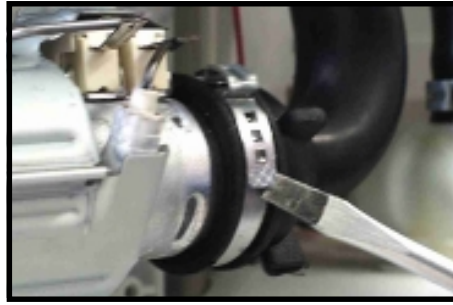
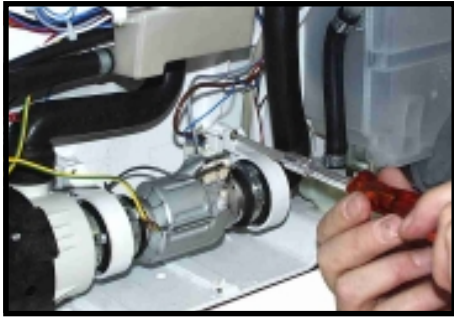
After removal you come to the most important functional components.



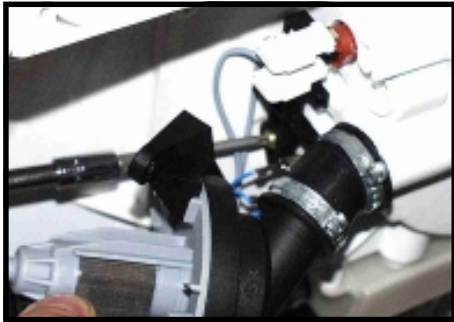
After loosening the screws of the two holders and the yoke, the circulation pump pump/continuous flow heater unit can be taken out.

The bayonet breech of the pump impeller housing can be simply released, for possible cleaning.



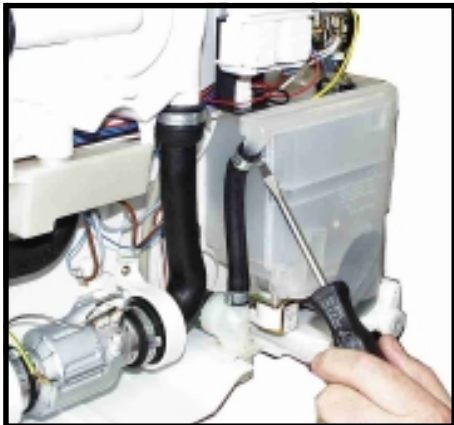


To release the hose clamps, it is recommended that this assembly be taken off its hinges.

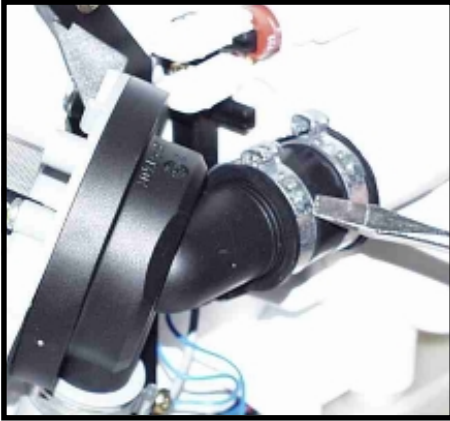


The mounting for the thermostats is screwed in behind the drain pump.

After its release, the thermostats can be removed.



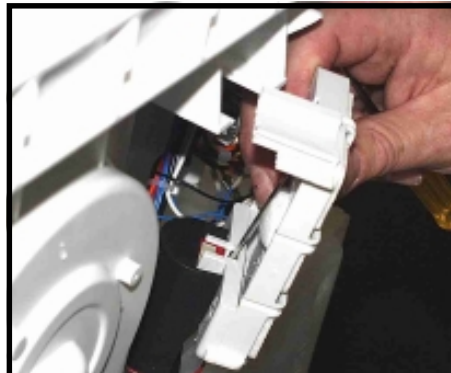
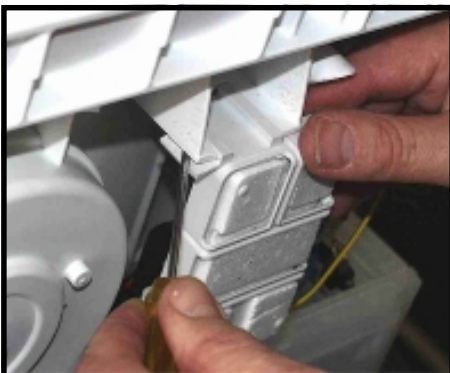
After the removal of the hose, the valve can be drawn out of the chassis with suitable pliers.



To dismount the leach pump, the hose clamps are released and the screws removed.

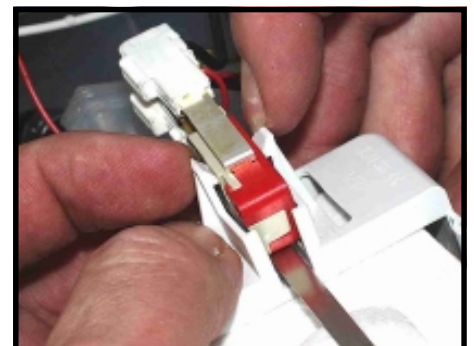


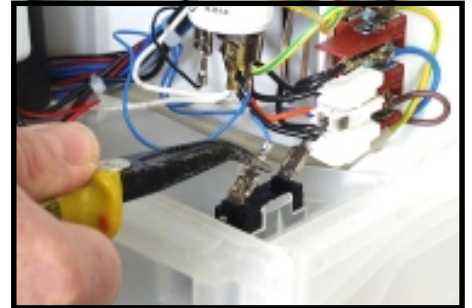
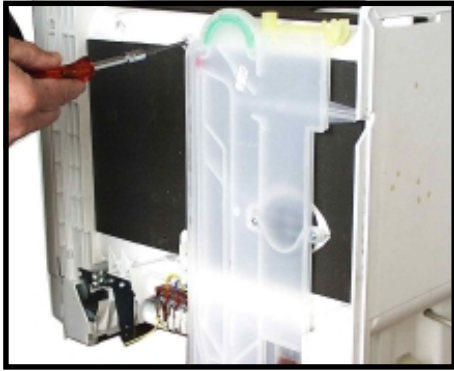
Here you can see how the hose clamps can be re-tensioned with wire cutting pliers.



The flooding switch is snapped out with a small screwdriver and can be taken out of its mounting.

After removing the protective cap, the microswitch can be snapped out.





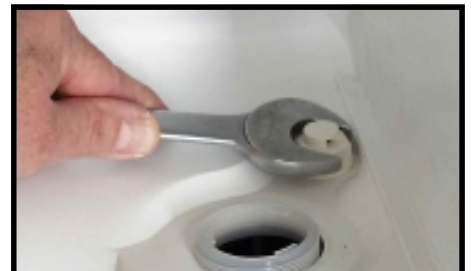
To dismount the water softener, these attachment screws are removed.

The connections on the reed switch are removed.

The hose connections are detached.



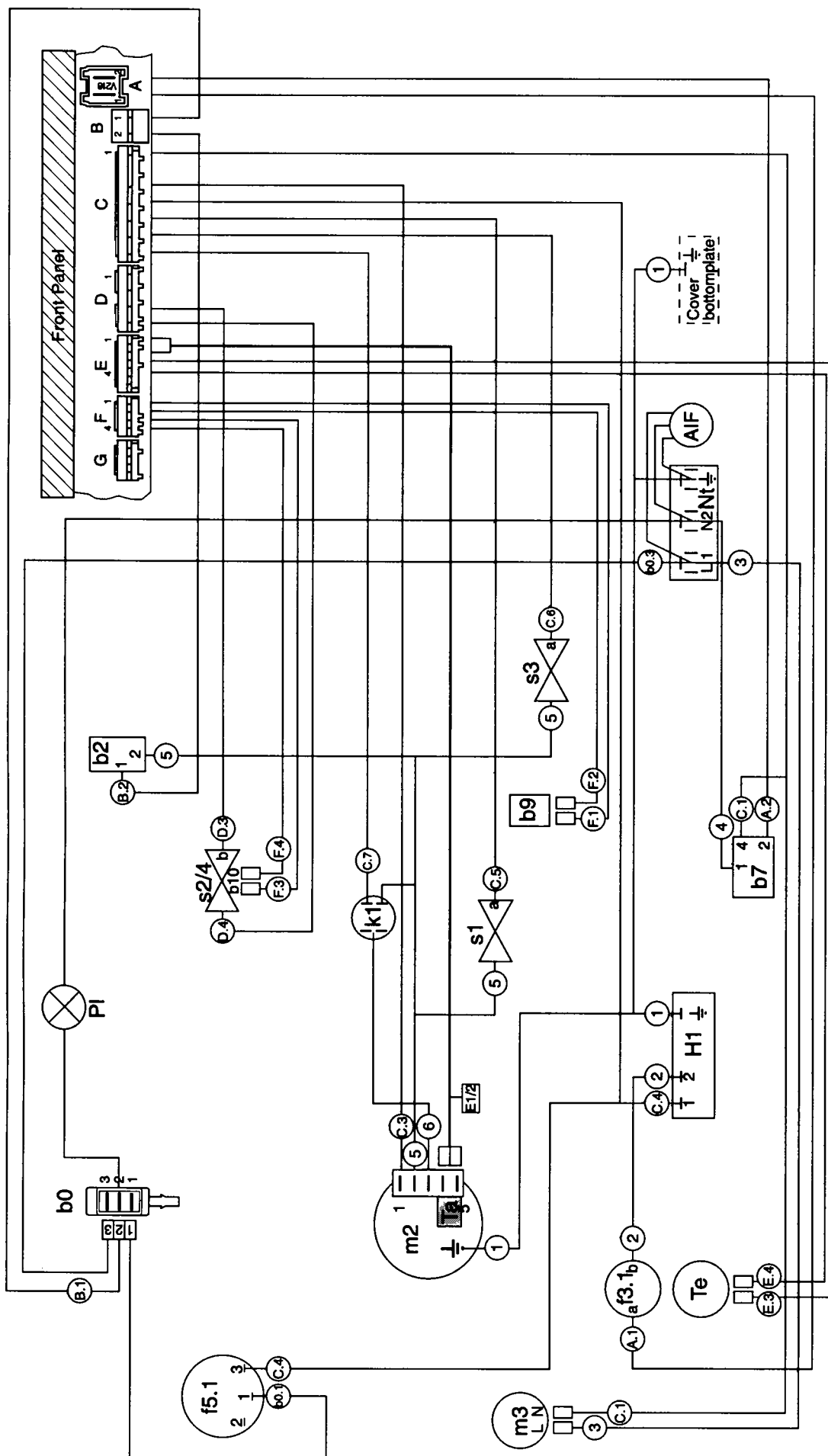
The large nut of the salt holder can be released with the help of a V-belt. A spanner is useful in removing the recycling inlet nut.



Now the complete unit can be removed.



After undoing the screws of the recycling valve, this can be removed.

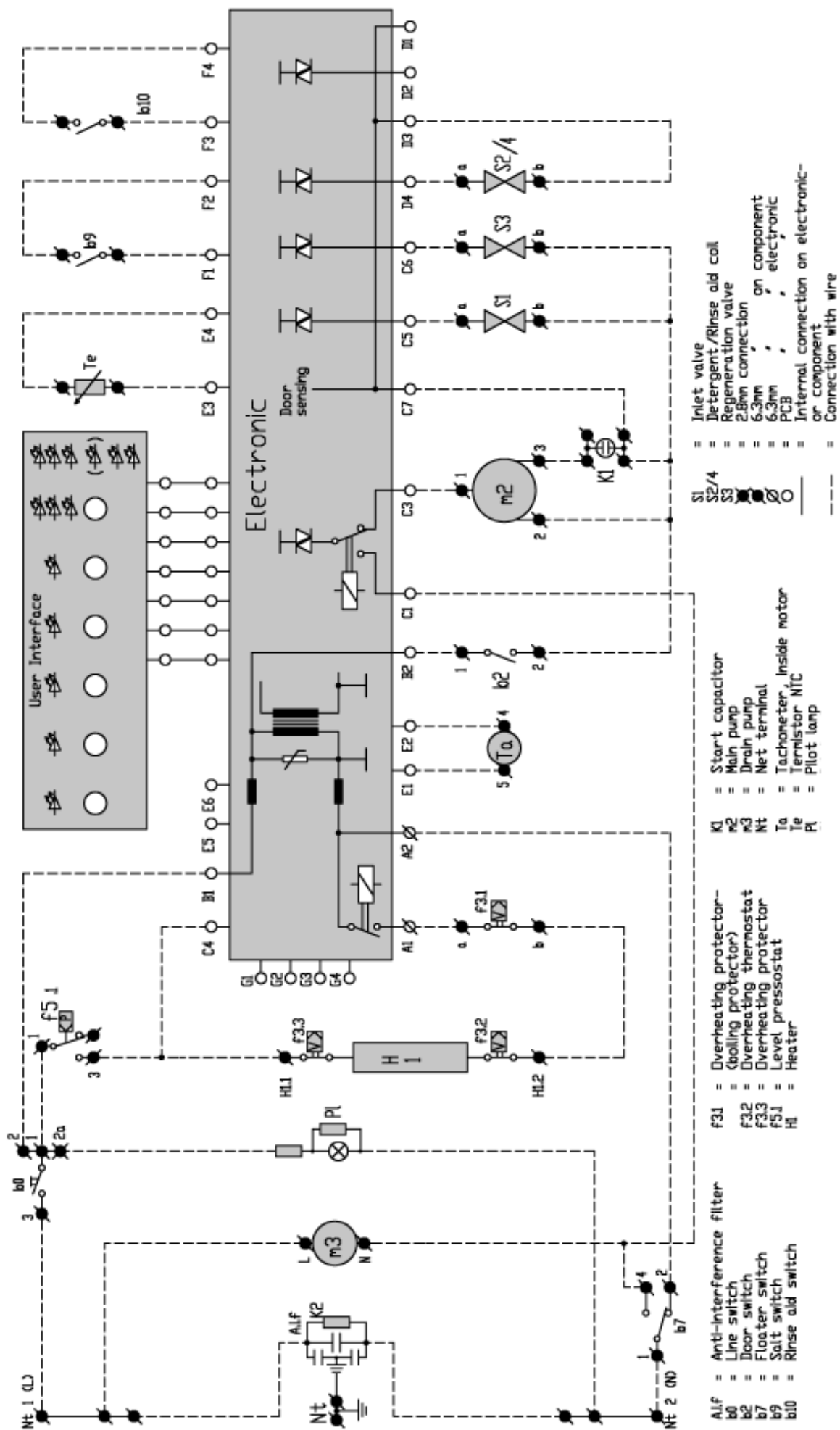


= Tachometer, inside motor
 = Thermistor NTC
 = Pilot lamp
 = Inlet valve
 = Detergent/Rinse aid coll
 = Regeneration valve

K1 = Start capacitor
 m2 = Main pump
 m3 = Drain pump
 Nt = Net terminal

f3.1 = Overheating protector-
 = (boiling protector)
 f3.2 = Overheating thermostat
 f3.3 = Overheating protector
 f5.1 = Level pressostat
 H1 = Heater

AIF = Anti-Interference filter
 b0 = Line switch
 b2 = Door switch
 b7 = Floater switch
 b9 = Salt switch
 b10 = Rinse aid switch



Measuring points and values

Conditions:

- Door closed
- Main plug disconnected
- Main switch ON
- Electronic plugs disconnected

