![Electrolux Spares Operation logo]

EDW 2000

GENERAL INFORMATION
INPUT PHILOSOPHY
SERVICEFUNCTIONS
ERRORS DISPLAYED

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INFORMATION
INPUT PHILOSOPHY
SERVICEFUNCTIONS
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table of contents

Operation:

1. Inputs and outputs: keys, LEDs and lamps

Arrangement and designation

The control class EDW2000 replaces the previous control classes Easytronic and Easytronic plus. For this reason there will be variants of appliances with combinations of display and PAA (program run display) in the output area (right side of the appliance). 3 possible variants have been represented in the outlines below. In this connection, the subdivision into "program selection, option selection, SZV, RLA, RAA and HWA" represent the currently defined standard division. In coordination with the Development Department it is possible to alter the assignment depending on variant in order to react to possibly coming design variants!

Variant 1: maximum equipment

vertical key arrangment

LD1 S1 Ein/Aus LD4 S4 LD7 S7
LD2 S2 LD5 S5 LD8 S8
LD3 S3 LD6 S6 LD9 S9

S10 LD10
1.99 LD11
S11 LD12

LD13 LD19
LD14 LD20
LD15 LD21
LD16 LD22
LD17 LD23
LD18 LD24

program/option selection   option selection SZV, RLA   PAA   HWA

horizontal key arrangment

LD1 LD2 LD3 LD4 LD5 LD6 LD7 LD8 LD9
S1 Ein/Aus S2 S3 S4 S5 S6 S7 S8 S9

S10 LD10
1.99 LD11
S11 LD12

LD13 LD19
LD14 LD20
LD15 LD21
LD16 LD22
LD17 LD23
LD18 LD24

program/option selection   option selection SZV, RLA   PAA   HWA

Variant 2: with display, without PAA

vertical key arrangment

LD1 S1 Ein/Aus LD4 S4 LD7 S7
LD2 S2 LD5 S5 LD8 S8
LD3 S3 LD6 S6 LD9 S9

S10 LD10
1.99 LD11
S11 LD12

LD19
LD20
LD21
LD22
LD23
LD24

horizontal key arrangment

LD1 LD2 LD3 LD4 LD5 LD6 LD7 LD8 LD9
S1 Ein/Aus S2 S3 S4 S5 S6 S7 S8 S9

S10 LD10
1.99 LD11
S11 LD12

LD19
LD20
LD21
LD22
LD23
LD24
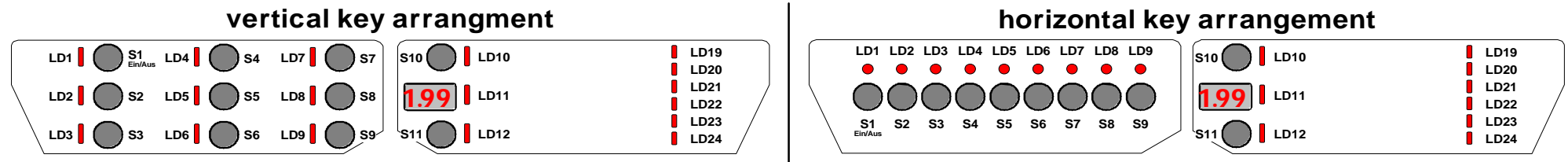
Variant 3: without display, with PAA

vertical key arrangment

LD1 S1 Ein/Aus LD4 S4 LD7 S7
LD2 S2 LD5 S5 LD8 S8
LD3 S3 LD6 S6 LD9 S9

LD13 LD19
LD14 LD20
LD15 LD21
LD16 LD22
LD17 LD23
LD18 LD24

horizontal key arrangement

LD1 LD2 LD3 LD4 LD5 LD6 LD7 LD8 LD9
S1 Ein/Aus S2 S3 S4 S5 S6 S7 S8 S9

LD13 LD19
LD14 LD20
LD15 LD21
LD16 LD22
LD17 LD23
LD18 LD24
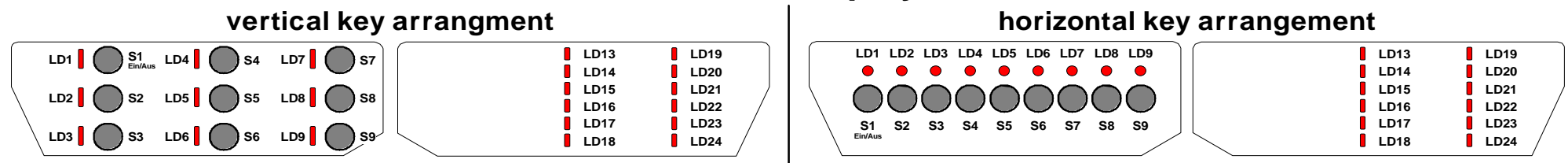
2. General information

- **Equipment in the panel area**
  (see description page B 1)

- **Variant-depending existing equipment:**
  - Up to 10 keys (S2 to S11) for the selection of programs or options with the corresponding LEDs. The alternatively available "SZV" key can only be programmed to the two keys (S10 or S11) of the output module.

  - Start-time preselection by 2.5-digit display with the corresponding confirmation LED.
    Indication between 1 and 19 hours (in steps of 1h)
  - Indication of remaining run time by 2.5-digit display with the maximum run time display "199"
  - Information displays (LD19 to LD24 are currently defined for that)
    - LED display for salt
    - LED display for rinse-aid
    - LED display for water
    - LED display for spraying arm
    - LED display for door
    - LED display for sieve
  - Program run time display (LD13 to LD18 are currently defined for that)
    - maximum 6-level display by LEDs possible
      e.g. prewash - washing - rinsing - final rinse - drying - end

  ⚠ All information LEDs resp. program run time LEDs are freely selectable depending on variant in agreement with the Development Department in order to react to possibly coming design variants.

  ⚠ **Absolutely necessary minimum equipment:**
  The keys S1 to S4 are absolutely necessary to select all customer resp. service functions,
    such as the alteration of the hardness range!
  Display or "end" LED are absolutely necessary for the output.

- **Functions which can be adjusted variably by the customer via the control panel:**
  (see description page B 11-13)
  - Indication and alteration of water hardness.
  - Activation/deactivation of rinse-aid addition.
  - Activation/deactivation of signal sound for end.
  Indication by means of display or "end" LED, depending on the equipment variant.

- **Miscellaneous:**
  - regeneration depending on need
  - manufacturing test routine
  - various service functions (fault memory, single actuator selection, LED test)
  - design of appliance for max. energy label AAA
  - alternatively with or without fan drying
  - aqua control system in different versions
    depending on electrical and mechanical components and the corresponding variant programming

- **Possible selectable program options:**
  - start-time preselection
  - half load "small quantity" as automatic system or with key
  - additional washing cycle
  - 3 in 1 (special tablet program)
  - senitize

3. Input philosophy: program selection
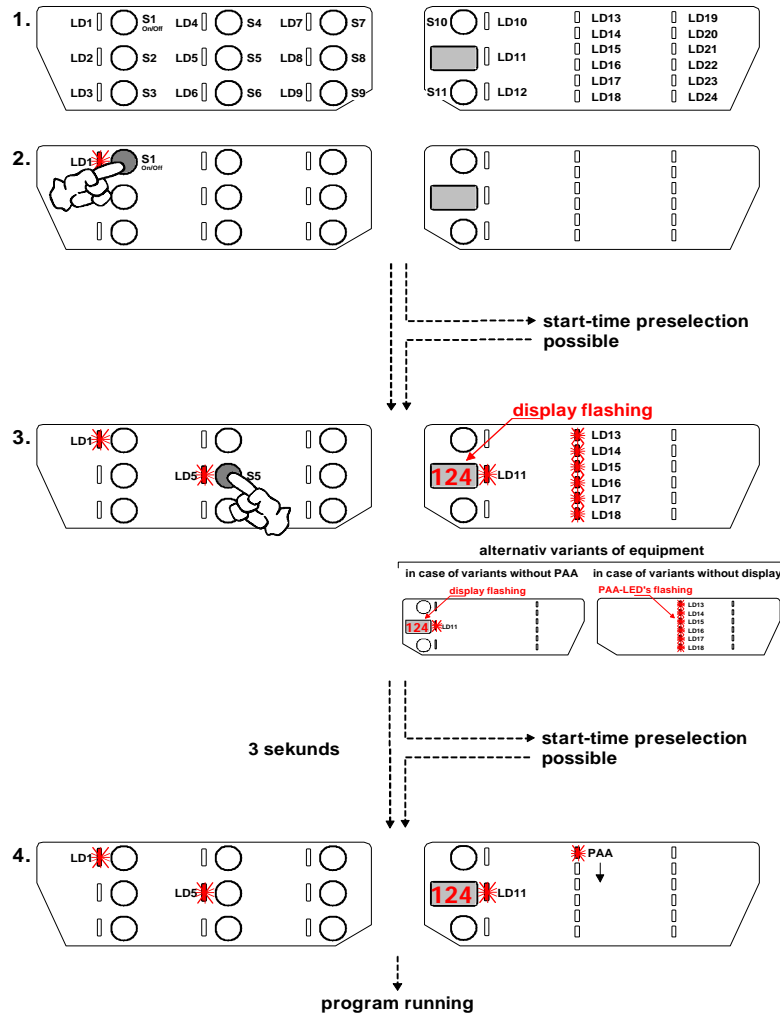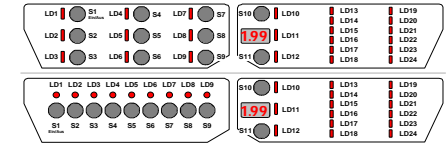
1. Appliance in switched-off condition

2. Switch on appliance with ON/OFF key S1
   - ↳ Display LD1 with ON/OFF key is lit.
   - ↳ Appliance is in the prestart mode.
   - ↳ All program keys and the "SZV" (start-time preselection) key are unlocked and can be selected.
     - ↳ After the program selection it is also possible to select possibly available options as far as they are permitted for the program.

☞ *Selection of a start time possible*
   (see description page B 4 / "Input philosophy start-time preselection")

3. Select program by pressing the corresponding key.
   - ↳ In addition to the LD1 display, the corresponding program LED and the run time LED are lit.
   - ↳ The run time to be expected is flashing.
   - ↳ All program-corresponding PAA LEDs (except the "end" LED) are lit.
   - ↳ With alternative equipment variants (see figure) it is possible that only the run time to be expected or only the PAA LEDs are flashing in the output area.

   Within 3 seconds it is possible to alter or additionally select an option at will.

Program starts automatically 3 seconds after the last key pressure
☞ *During these 3 seconds it is still possible to select a start time*
   (see description page B 4 / "Input philosophy: start-time preselection")

4. Program is running
   - ↳ Corresponding program LED is lit.
   - ↳ If available depending on variant, the run time is indicated in the display, the run time LED is lit.
   - ↳ With alternative equipment variants it is also possible that only the corresponding PAA LED is lit.

⚠ Program starts only when the door has been closed.

4.1. Input philosophy: select start time

(Variant A: time preselection after program selection
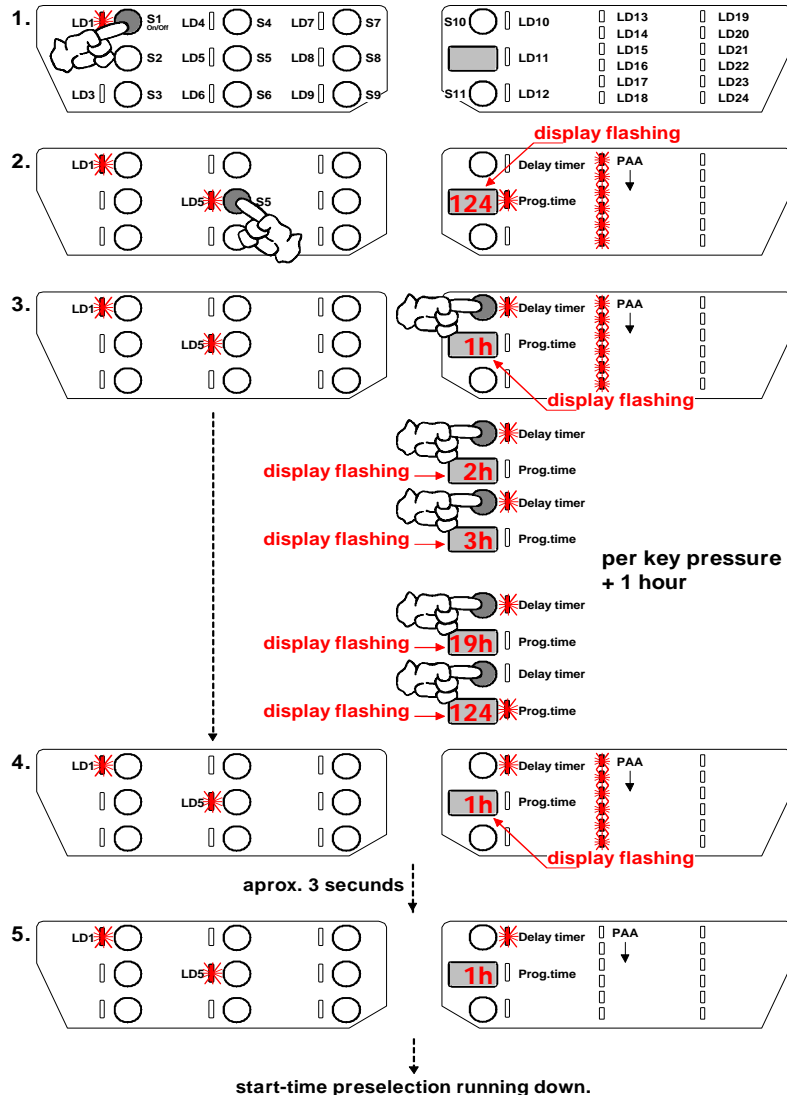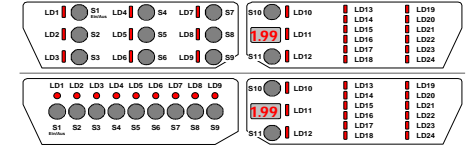
1. Switch on appliance with ON/OFF key S1
   - ↳ Display LD1 with the ON/OFF key is lit.
   - ↳ Appliance is in the "prestart" mode.
   - ↳ All program keys and the "SZV" key are unlocked and can be selected.
     - ↳ After the program has been selected you can also select possibly available options as far as they are permitted for the program.

2. Select program by pressing the corresponding key.
   - ↳ In addition to the LD1 display the corresponding program LED and the run time LED are lit. The run time to be expected is flashing in the display, all program-corresponding PAA LEDs (except the "end" LED) are lit.
   - ↳ With alternative variants of equipment it is possible that only the run time to be expected or only the PAA LEDs are flashing in the output area.

3./4. Actuate the start-time preselection key within 3 seconds.
   - ↳ Display LD1 with ON/OFF key, program LED and "SZV" LED are lit
   - ↳ Set start time is flashing in the display.
   - ↳ All program-corresponding PAA LEDs (except the "end" LED) are lit.
   - ↳ With alternative variants of equipment (see figure) it is possible that only the run time to be expected or only the PAA LEDs are flashing in the output area.

   Any additional key pressure causes the start time scrolling by 1 hour
   1h - 2h - ... - 19h - indication of remaining run time (SZV=0h) - 1h - 2h - ...

5. 3 seconds after the last actuation of the "SZV" key the set start time gets active and is running down
   - ↳ In addition to the LD1 display the corresponding program LED and "SZV" LED are lit. The start time is lit in the display.

⚠ Start-time preselection gets only active when the door has been closed!

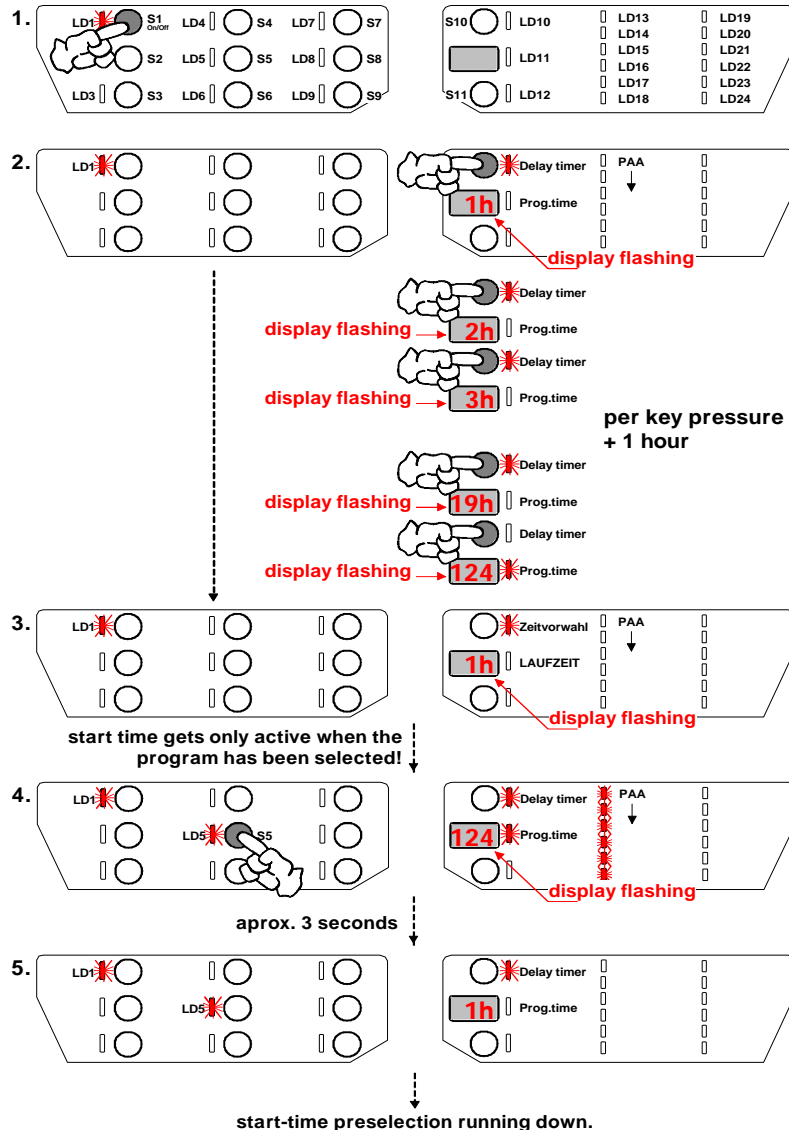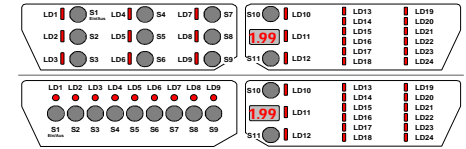# 4.2. Input philosophy: select start time

(Variant B: time preselection before program selection)

1. Switch on appliance with ON/OFF key S1.
   - ↳ Display LD1 with the ON/OFF key is lit.
   - ↳ Appliance is in the "prestart" mode.
   - ↳ All program keys and the "SZV" key are unlocked and can be selected
     - ↳ After the program has been selected you can also select possibly available options, as far as they are permitted for the program.

2. Actuate the start-time preselection key.
   - ↳ Display LD1 with the ON/OFF key is lit.
   - ↳ "SZV" LED is lit
   - ↳ set start time is flashing in the display.

   Any additional key pressure causes the start time scrolling by 1 hour

   1h - 2h - 3h - ... - 19h - display off (SZV=0h) - 1h - 2h - ...

3. Indication of "SZV" is flashing in the display until an additional washing cycle will be selected. The selected start time is not active until that time!

4. Select desired program by pressing the corresponding key.
   - ↳ In addition to the LD1 display, the corresponding program LED is lit.
   - ↳ The LEDs of the start time key and the run time LED are lit.
   - ↳ The run time to be expected is flashing in the display.
   - ↳ All program-corresponding PAA LEDs (except the "end" LED) are lit.

5. 3 seconds after the last key actuation the set start time gets active and is running down
   - ↳ In addition to the LD1 display the corresponding program LED and the "SZV" key are lit. The start time is indicated in the display.

⚠ Start-time preselection gets active only when the door has been closed!

5. Input philosophy: program run

- **Cycle start**
  - ✦ 3 seconds after the last key actuation respectively after the set start time has run down, the selected washing cycle will start automatically when the door has been closed.
  - ✦ From that moment it is no more possible to select a time preselection resp. a program option.
    - ☞ *cancel resp. delete cycle*
      (see description page B 6 / "Delete cycle")
    - ☞ *change resp. alter cycle*
      (see description page B 7.2 / "Alter cycle")

- **Cycle run**
  - ✦ **Appliances with display**
    - ✦ LED LD1, LED of the selected washing cycle as well as run time LED are lit during the whole cycle run.
    - ✦ The display indicates the still remaining washing time in minutes.
    - ✦ The run time is updated depending on the program. The update is executed in changing program parts. In doing so, the run time can correct in jumps downward or the indication is stopped until the time has been synchronized again.
    - ✦ Depending on the equipment of the appliance, the cycle run LEDs (PAA) indicate the currently active program part.
      For that the corresponding PAA LED is flashing up pulsating (2 sec. on / 400mS off).
  - ✦ **Appliances without display, but with PAA LEDs:**
    - ✦ LED LD1, LED of the selected washing cycle as well as run time LED are lit during the whole cycle run.
    - ✦ By means of the cycle run LEDs (PAA) the currently active program part is indicated.
      For that the corresponding PAA LED is flashing up pulsating (2 sec. on / 400mS off).

- **Cycle end**
  - ✦ **Appliances with display:**
    - ✦ The confirmation LED for the program key of the run-down cycle and the display LD1 of the ON/OFF key continue to be lit.
    - ✦ The display indicates "0" and the run time LED is lit.
    - ✦ If there is a cycle run display depending on the variant, also the "end" LED is lit.

  - ✦ **Appliances without display, but with PAA LEDs:**
    - ✦ The confirmation LED for the program key of the run-down cycle and the display LD1 of the ON/OFF key continue to be lit.
    - ✦ The "end" LED is lit in the cycle run display.

  - ✦ If the appliance is equipped with a buzzer and this one is activated, there will be an end signal when the cycle end has been reached, which is a whistling sound with the following interval:
    15 seconds on - 3 minutes off - 15 seconds on - 3 minutes off - 15 seconds on - completely off
    The end signal is cancelled immediately by opening the door.
  - ✦ When the cycle end has been reached, it is possible to delete the run-down cycle by opening and closing the door. After closing the door, the appliance is automatically again in the "prestart" mode.
  - ✦ When opening the door all indications remain on the panel, as far as the appliance is not switched off by the ON/OFF key S1.
  - ✦ In order to switch off the appliance completely you have to actuate the ON/OFF key S1.
    The run-down cycle is deleted even in this case. All displays go out.

6. Input philosophy: delete program
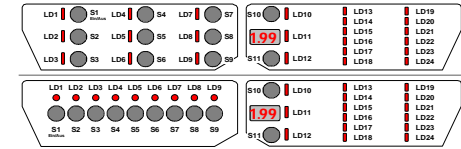
A selected or already started washing cycle can be deleted during normal operation at any time.

- **Delete program (using the reset function)**

1.

2.

flashing

3.

alternative variants of equipment

in case of variants without PAA   in case of variants without display
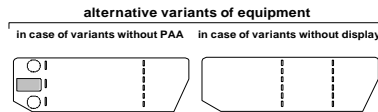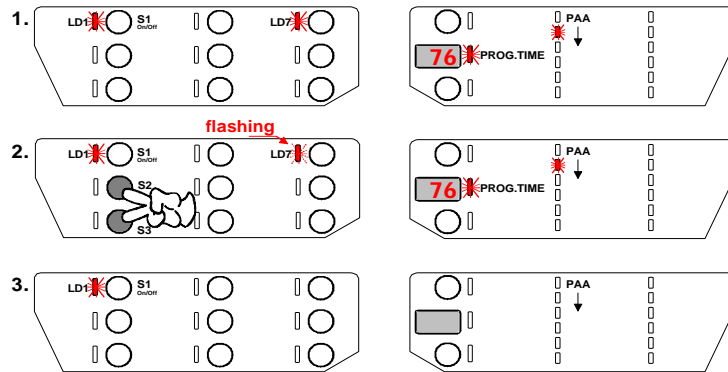
⚠ Reset function always with keys <u>S2</u> and <u>S3</u>

1. Cycle running

2. Actuate reset keys <u>S2</u> and <u>S3</u> for about 2 seconds
   - ↳ Display <u>LD1</u> with ON/OFF key and run time LED are lit.
   - ↳ Display LED of the running cycle starts flashing.

3. After about 2 seconds all displays, except LED <u>LD1</u> of the ON/OFF key, go out. The program has been deleted.

7.1. Input philosophy: alter program
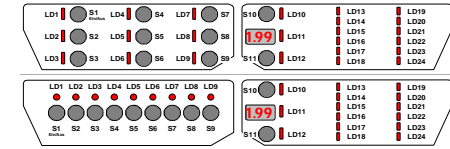
- **Alter program during the prestart phase**

1.
display flashing

124 Prog.time
PAA

alternative variants of equipment

in case of variants without PAA | in case of variants without display
display flashing | PAA-LED's flashing
124 Prog.time |

2. LD2 S2
display flashing

94 Prog.time
PAA

alternative variants of equipment

in case of variants without PAA | in case of variants without display
Display blinkt | PAA-LED's blinken
124 AUFZEIT |

3. LD7 S7
display flashing

112 Prog.time
PAA

alternative variants of equipment

in case of variants without PAA | in case of variants without display
display flashing | PAA-LED's flashing
124 AUFZEIT |

1. Program has been selected but did not yet start.
   - In addition to the LD1 display, the corresponding program LED and run time LED are lit.
   - Run time to be expected is flashing.
   - All program-corresponding PAA LEDs (except the "end" LED) are lit.
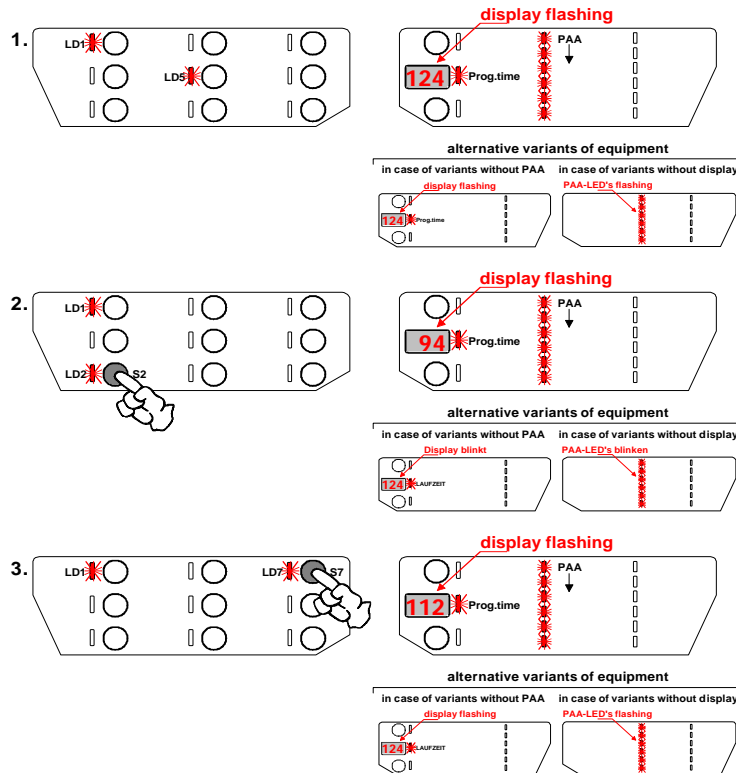   - With alternative variants of equipment (see figure) it is possible that only the run time to be expected or only the PAA LEDs are flashing in the output area.

2. By pressing the new desired program key shortly it is possible to alter directly. Options already selected before are deleted and have to be selected anew.
   - LD1 display with ON/OFF key, new program LED and run time LED are lit.
   - Run time to be expected is flashing in the display.
   - All program-corresponding PAA LEDs (except the "end" LED) are lit.
   - With alternative variants of equipment (see figure) it is possible that only the run time to be expected or only the PAA LEDs are flashing in the output area.

3. After the last key actuation it still can be altered within 3 seconds.
   If no key is actuated any more during these 3 seconds, the program will start.

⚠ Program starts only when the door has been closed.

⚠ **Special feature when a start time was selected before!**

1. Program and start time have been selected but did not yet start.
   - LD1 display with ON/OFF key, program LED and "SZV" LED are lit.
   - Programmed start time is flashing in the display.
   - All program-corresponding PAA LEDs (except the "end" LED) are lit.
   - With alternative variants of equipment (see figure) it is possible that only the run time to be expected or only the PAA LEDs are flashing in the output area.

2. By pressing the new desired program key shortly it is possible to alter directly. The already selected start-time preselection is preserved after the alteration! Program options already selected before, however, are deleted and must be selected anew.
   - LD1 display with ON/OFF key, new program LED and "SZV" LED are lit.
   - Run time to be expected is flashing in the display for 2 sec., afterwards the start time is flashing again.

⚠ If the selected start time is already running down (the time is permanently lit in the display) you have to press the new desired program key a longer time (about 6 seconds) for alteration.

7.2. Input philosophy: alter program
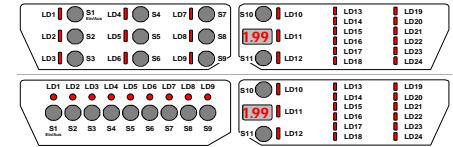
- **Alter program after started cycle**
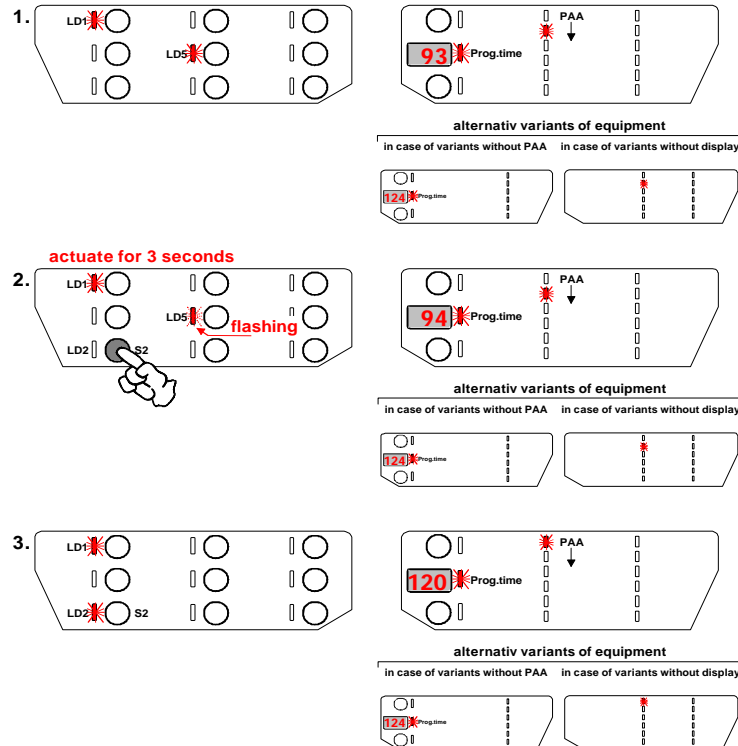
1. Cycle running
   ✎ <u>LD1</u> display with the ON/OFF key and the corresponding program LED are lit.
   ✎ Depending on the appliance variant, the run time LED is lit and the run time
   ✎ and/or by means of the program run LEDs (PAA) the active program part is/are indicated in the display.

2. Actuate the new desired program key (in our example <u>S3</u>) for about 6 seconds.
   ✎ The displays remain as described under 1., but now the LED of the running program starts flashing.

3. After about 6 seconds the previous program LED goes out and the program LED of the new selected program is lit.
   ✎ In addition to the <u>LD1</u> display, the run time LED is lit.
   ✎ The display indicates the run time to be expected anew.
   ✎ Depending on the appliance variant, the corresponding program LED (PAA) indicates the currently active program part.

⚠ If a program is altered after an already selected cycle the new cycle starts generally from the beginning!
This is also indicated by the run time in the display by an increase of the run time.
Options already selected before will be deleted.

8. Input philosophy - interrupt program

- **Interrupt program**

  - Using the ON/OFF key <u>S1</u> you can interrupt the program as long as you want.
    The same is valid for an interruption by opening the door.
  - There is no deleting function integrated in the ON/OFF key <u>S1</u>.
  - If the cycle is interrupted by using the ON/OFF key, all displays go out.
  - The cycle run will be continued by switching on again using the ON/OFF key <u>S1</u> resp.
    by closing the door, without that another key actuation becomes necessary.
    Information: The cycle will be continued with a short time delay.
  - All displays and confirmations appear in the same condition as before the interruption.

- **What happens when opening and closing the door?**

  - **The appliance is switched on and is in the "prestart" mode**
    - After opening the door all indications keep to be displayed on the panel. The power
      supply of the electronic is fully guaranteed as long as the appliance remains
      switched on.
  - **The door is opened during the running cycle**
    - After opening the door all indications keep to be displayed on the panel as long as
      the appliance remains switched on using the ON/OFF key <u>S1</u>.
    - After closing the door the appliance will start automatically and the cycle run
      will be continued.

- ⚠ **Attention:**

  - When the 1st regeneration has been reached in the program part "drying" the following is valid:
    - When the door is open longer than 30 seconds, the program will be deleted.
      After closing the door, the appliance will be automatically again in the
      "prestart" mode. A new program could be selected again immediately.
    - Switching off the appliance by pressing the ON/OFF key <u>S1</u> also deletes the
      current program from that moment.
    (see description page B 3 / "Input philosophy program selection")

- **What happens in case of resp. after a power failure?**

  - In case of a power failure the appliance behaves as when switched off using the
    ON/OFF key.
    (see description above / under "Interrupt program")
  - After the mains have returned the appliance behaves as after being switched on using
    the ON/OFF key <u>S1</u>.
  - After a power failure the cycle will continue without any necessary key actuations.

9.1. Input philosophy - displays (part 1)

All displays are designed as LED displays and are available depending on the appliance variant. If available depending on variant, start-time preselection and run time are indicated

⚠️ for that see the figures of input and output parts page B 1 / "Inputs and outputs"

● **Displays for program selection and options**
  ✥ Above resp. next to a program or option key there is generally a corresponding LED to confirm the selected function.
  ✥ They are lit permanently during the whole cycle run.

● **Display for start-time preselection (SZV)**
  ✥ The start-time preselection is indicated via a 2.5-digit display.
  ✥ The display indicates the start time in hours.
  ✥ The start time is counted down to 0h in steps of hours.
  ✥ The possible start-time setting is displayed scrolling.
    1h - 2h - 3h - ... - 19h - 0h (SZV off) - 1h - 2h - ...
  ✥ In addition to the start time in the display, also the confirmation LED next to the "SZV" key is flashing up.
  ✥ When the start-time preselection has run down, the display indicates the run time to be expected of the selected washing cycle in minutes, the "SZV" LED goes out and the run time LED is lit.

● **Run time display (RLA)**
  ✥ The remaining run time is indicated via a 2.5-digit display.
  ✥ The display indicates the still remaining washing time in minutes.
  ✥ The run time is updated depending on the program. The update is executed in changing program parts. In doing so the run time can correct downward in jumps, or the display is stopped until the time has been synchronized again.
  ✥ If the display indicates a run time, the run time LED is lit additionally.

● **Program Phase Display (PAA)**
  ✥ The program run display is executed via a maximum of 6 LED displays.
  ✥ At the moment LEDs LD13 - LD18 are defined for the PAA:
  ✥ Every LED indicates a program section (program part).
    e.g. prewash - washing - rinsing - final rinse - drying - end
  ✥ The corresponding PAA LED is flashing up pulsating (2sec. on /400msec. off). Only the "end" LED is lit permanently.

9.2. Input philosophy - displays (part 2)

All displays are designed as LED displays and are available depending on the appliance variant.

⚠ for that see the figures of the input resp. output parts page B 1 / "Inputs and outputs"

- **Information displays**
  - ↳ The LED position is depending on the programming of the variant.
    They can be programmed to any LED which is not programmed with a program or an option key.
  - ↳ The LEDs are lit permanently from switching on the appliance by the ON/OFF key S0, until the moment of the successful program start. Furthermore, the LEDs are lit when the cycle end has been reached until the appliance is switched off.
  - ↳ The display LEDs go out during the whole cycle run!
    - ◆ **LED display "salt"**
      - ↳ LED is lit in case of a lack of salt
      - ↳ LED goes out when salt has been refilled
        (Depending on the salt dissolution it can take some time until the LED goes out.)
        Information: The LED display "salt" goes out with hardness range setting 1
        (no regeneration necessary - indication in the display "1 L")
    - ◆ **LED display "rinse-aid"**
      - ↳ LED is lit in case of a lack of rinse-aid
      - ↳ LED goes out after rinse-aid has been refilled
        Information: The rinse-aid addition can be deactivated completely by the
        customer depending on the variant. This also deactivates the
        LED display "rinse-aid".
        (see description page B 13 / "Deactivation of rinse-aid addition")

⚠ When the option 3 in 1 has been selected (special tablet option), neither the "salt" LED nor the "rinse-aid" LED is selected.

  - ◆ **LED display "water"**
    - ↳ LED is lit when there is no or too less water filling into the appliance.
      A reason for that can be, for example, a closed water tap.
    - ↳ The program is stopped and can be continued when the fault has been eliminated by actuating the program key.
      (see also description page B 19 / "Survey of fault displays - fault 10")
  - ◆ **LED display "spraying arm"**
    - ↳ LED is lit with a blocked middle spraying arm.
    - ↳ additionally acoustic signal
      (see description page B 19 / "Survey of fault displays - fault A0")
  - ◆ **LED display "door"**
    - ↳ LED is lit when the door is open
    - ↳ Goes out automatically when door will be closed.
  - ◆ **LED display "sieve"**
    - ↳ This LED is selected automatically after 20 washing cycles.
    - ↳ LED is lit when the internal counter has reached 20 at the cycle end.
    - ↳ Goes out when a new program has started - internal counter is reset to 0.

10. Short survey of all customer, service and aftersales service functions

vertical key arrangement

LD1	S1 Ein/Aus	LD4	S4	LD7	S7	S10	LD10	LD13 / LD14	LD19 / LD20
LD2	S2	LD5	S5	LD8	S8	1.99	LD11	LD15 / LD16	LD21 / LD22
LD3	S3	LD6	S6	LD9	S9	S11	LD12	LD17 / LD18	LD23 / LD24

horizontal key arrangement

LD1 LD2 LD3 LD4 LD5 LD6 LD7 LD8 LD9	S10	LD10	LD13 / LD14	LD19 / LD20
S1 Ein/Aus S2 S3 S4 S5 S6 S7 S8 S9	1.99	LD11	LD15 / LD16	LD21 / LD22
	S11	LD12	LD17 / LD18	LD23 / LD24
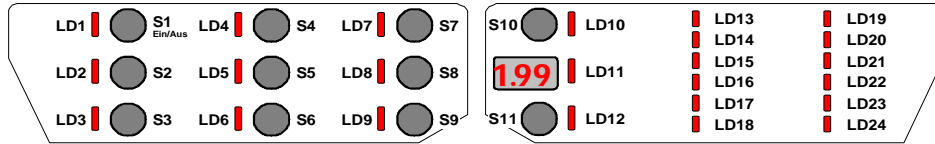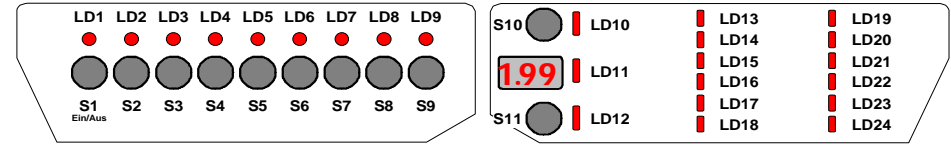
Who?	Which function?	Selection of special mode customer or service	Confirmation of the special mode	Call of special function	Detailled description
Customer	setting of water hardness	→	→	press key S2	see page B 11
	deactivation rinse-aid addition	→ switch on appliance with ON/OFF S1 → press S2 and S3 simultaneously and keep them pressed until ...	... LEDs of keys S2 - S4 are flashing →	press key S3	see page B 12
	deactivation signal sound	→ ⚠ When calling the customer functions, generally no washing cycle must be selected	→	press key S4	see page B 13
manufacturing / service	readout of fault memory single actuator selection	→	→	press key S2	see page B 14
	LED test with integrated deletion of fault memory	→	→	press key S3	see page B 15
	manufacturing test routine	→ press S2 and S4 simultaneously and switch on appliance with ON/OFF S1. Keep keys S2 and S4 pressed for another aprox. 4 seconds until ...	... LEDs of keys S2 - S4 are flashing →	press key S4	see page B 16
	deactivation Pulse Wash	→	→	press keys S3 + S4, change S3	see page B 17
	additional washing cycle	→	→	press keys S2 + S3, change S2	see page B 18

11. Service function / setting of water hardness:

General information

- Setting and changing the water hardness range is executed in all designs resp. key arrangements analogously.
- For that you always have to use keys S1, S2 and S3 independent of their variant-depending program load.
- **Key S2 is ALWAYS the "water hardness range key"**
- The water hardness range value 4 is preset by the manufacturer.
- With setting "1L" it is generally not regenerated.
- A salt addition is not necessary.
- A possibly existing "salt" LED is not selected.

Electronic and mechanical setting with the appliance:

- In addition to the "electronic" setting on the control panel described on the right you also have to pay attention to the mechanical setting in the appliance by the 2-step blending switch. (see for that the table for hardness range values)

vertical key arrangement

horizontal key arrangement

blending-switch

Table for hardness range values:

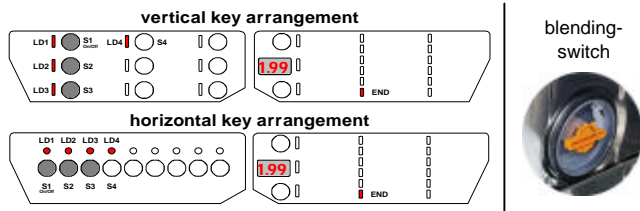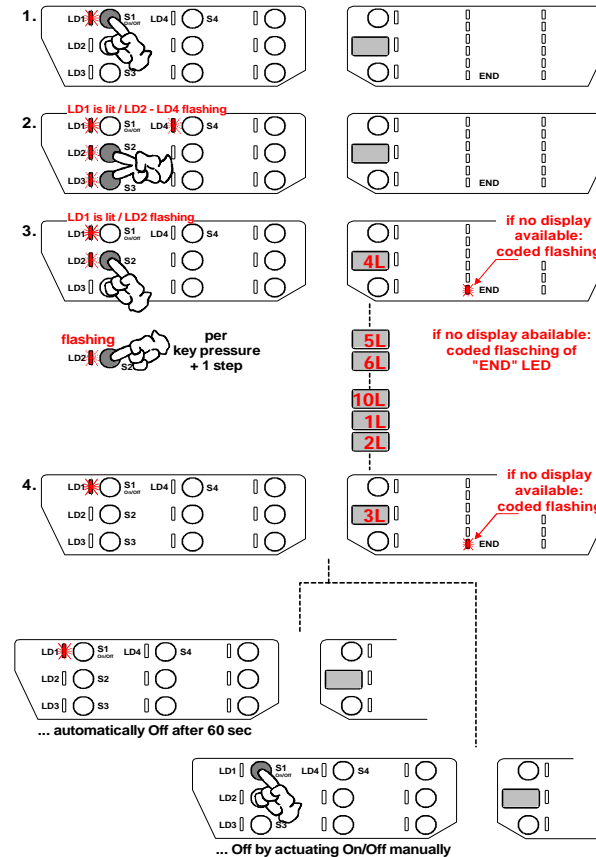| indication display	display End-LED	setting of hardness		water hardness				comment
	flashing acustic	elektronic	mechanic	in dH		in mmol/L		area	
1L	1 time	1			bis 4		bis 0,7	I	no regeneration
2L	2 times	2		4 bis 10		0,7 bis 1,8		I / II	
3L	3 times	3	0	11 bis 14		1,9 bis 2,5		II	
4L	4 times	4		15 bis 18		2,6 bis 3,2		III	
5L	5 times	5		19 bis 22		3,3 bis 3,9			
6L	6 times	6		23 bis 28		4,0 bis 5,0			
7L	7 times	7		29 bis 36		5,1 bis 6,4			
8L	8 times	8	1	37 bis 42		6,5 bis 7,5		IV	
9L	9 times	9		43 bis 50		7,6 bis 8,9			
10L	10 times	10		51 bis 70		9,0 bis 12,5			double regeneration

Calling / changing / saving the "electronic" hardness range value

1.

END

2. LD1 is lit / LD2 - LD4 flashing

END

3. LD1 is lit / LD2 flashing

4L — if no display available: coded flashing — END

flashing — per key pressure + 1 step

5L
6L

if no display abailable: coded flasching of "END" LED

10L
1L
2L

4.

3L — if no display available: coded flashing — END

... automatically Off after 60 sec

... Off by actuating On/Off manually

Calling the function "set water hardness"

1. Switch on appliance with ON/OFF key S1
   LD1 display with ON/OFF key is lit.

2. Press keys S2 and S3 simultaneously until the confirmation LEDs LD2, LD3 and LD4 are flashing
   LD1 display with ON/OFF key is lit.

3. By actuating the function key S2 you now can call the water hardness function. The confirmation LED LD2 continues flashing, LEDs LD3 and LD4 go out.
   The set hardness range is indicated in the display.
   If there is no display existing depending on variant, the value is indicated by a coded flashing of the "end" LED.
       (see for that the table on the left side of this page!)

Changing the set hardness

By any other actuation of the function key S2 you can change the hardness range. This increases the value scrolling.
(4L - 5L - 6L - ... - 10L - 1L - 2L - ...)

Leaving the function

4. After the last key pressure of function key S2 you can leave the special program as follows.
   After 60 seconds all displays go out automatically, except LD1 of the ON/OFF key
   or
   the appliance is switched off by the ON/OFF key S1.

Saving the set water hardness

The selected hardness range is saved directly after any entry.

12. Customer function / deactivation of rinse-aid addition:

When calling the customer functions no cycle must washing be selected generally!

General information

The function rinse-aid deactivation does not exist generally and must be programmed in the software variant.

- ◆ Deactivation resp. activation of rinse-aid addition is executed in all designs and key arrangements analogously.
- ◆ For that you always have to use keys S1, S2 and S3 independent of their variant-depending program load.
- ◆ **The key S3 is ALWAYS the "rinse-aid deactivation key"**
- ◆ The rinse-aid addition is always set active by the manufacturer.
- ◆ If the rinse-aid addition is deactivated it means that no more rinse-aid is added via the detergent dispenser.
- ◆ Along with the deactivation, a variant-depending existing "rinse-aid" LED is deactivated generally.

vertical key arrangement

horizontal key arrangement
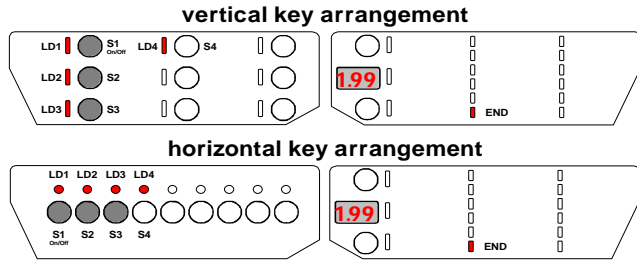
Table for indications of condition on/off:

indication		comment
display	"END"-LED if no display available on variant	
1d	on	rinse-aid addition on
0d	off	rinse-aid addition off

Calling / changing / saving the rinse-aid addition deactivation

1.

2. LD1 is lit / LD2 - LD4 flashing

3. LD1 is lit / LD2 flashing — if no display available: **1d**

4. LD1 is lit / LD2 flashing — if no display available: **0d**

5. LD1 is lit / LD2 flashing — if no display available: **1d**

... automatically Off after 60 sec

... Off by actuating On/Off manually
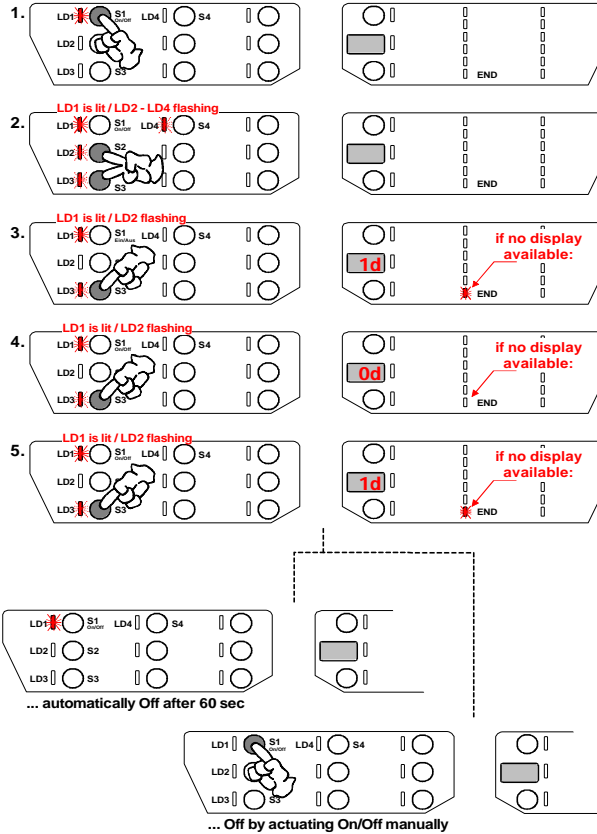
Calling the function "deactivate rinse-aid addition"

1. Switch on appliance with ON/OFF key S1.
   LD1 display with ON/OFF key is lit.

2. Press keys S2 and S3 simultaneously until the confirmation LEDs LD2, LD3 and LD4 are flashing
   LD1 display with ON/OFF key is lit.

3. By actuating the function key S3 you now can call the function rinse-aid addition. The confirmation LED LD3 continues flashing, LEDs LD2 and LD4 go out.
   The current condition whether the rinse-aid addition is active or not is indicated in the display. If there is no display available depending on variant, the value is indicated via the "END" LED.
   (see for that the table on the left side of this page!)

Deactivation resp. activation of rinse-aid addition:

4. / 5. By any further actuation of the function key S3 you can activate resp. deactivate the addition alternating.

Leaving the function

After the last key pressure of function key S2 you can leave the special program as follows.
After 60 seconds all displays go out automatically, except LD1 of the ON/OFF key
or
the appliance is switched off by the ON/OFF key S1.

Saving the set condition

The condition is saved directly after any entry.

13. Customer function / deactivation of signal sound:

⚠️ *When calling the customer functions no cycle must washing be selected generally!*

General information

The function deactivation of the signal sound does not exist generally and must be programmed in the software variant.

- ◆ Deactivation resp. activation of the signal sound is executed in all designs and key arrangements analogously.
- ◆ For that you always have to use keys S1, S2, S3 and S4 independent of their variant-depending program load.
- ◆ **The key S4 is ALWAYS the "signal sound deactivation key"**
- ◆ The signal sound at the cycle end is always set active by the manufacturer.
- ◆ If the signal sound is deactivated it means that in general no acoustic end signal will sound any more.
  The acoustic fault signals also cannot be heard any more!

vertical key arrangement
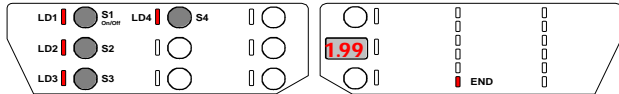
horizontal key arrangement
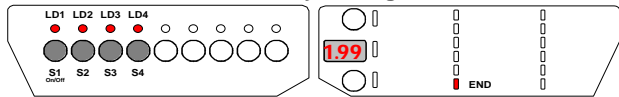
Table for indication of condition on/off:

indication		comment
display	"END"-LED if no display available depending on variant	
1b	on	signal sound (buzzer) on
0b	off	signal sound (buzzer) off

Calling / changing / saving the signal sound deactivation

1.

2. LD1 is lit / LD2 - LD4 flashing

3. LD1 is lit / LD2 flashing — if no display available:

4. LD1 is lit / LD2 flashing — if no display available:

5. LD1 is lit / LD2 flashing — if no display available:

... automatically Off after 60 seco

... Off by actuating On/Off manually
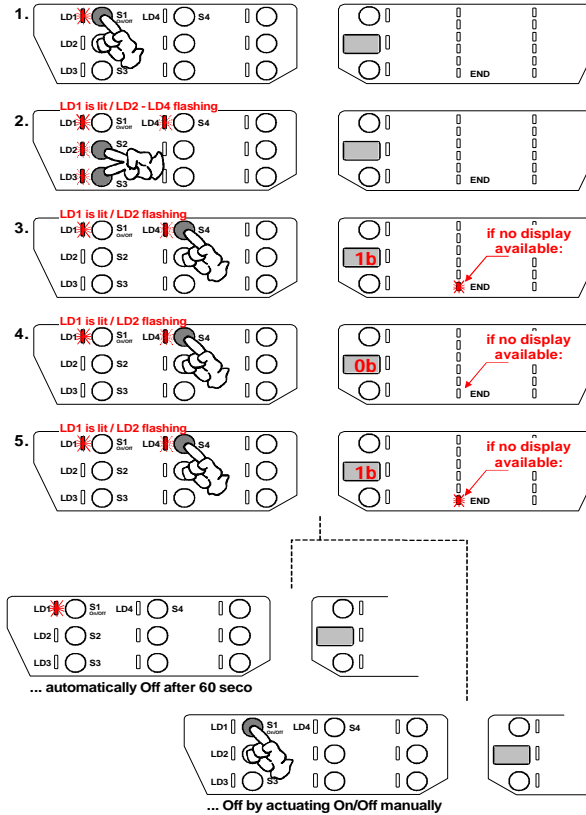
Calling the function "deactive signal sound"
1. Switch on appliance with ON/OFF key S1
   LD1 display with ON/OFF key is lit.

2. Press keys S2 and S3 simultaneously until the confirmation LEDs LD2, LD3 and LD4 are flashing
   LD1 display with ON/OFF key is lit.

3. By actuating the function key S4 you now can call the function signal sound deactivation. The confirmation LED LD4 continues flashing, LEDs LD2 and LD3 go out.
   The current condition whether the signal sound is active or not is indicated in the display.
   If there is no display available depending on variant, the value is indicated by the "END" LED.
        (see for that the table on the left side of this page!)

Deactivation resp. activation of the signal sound:
4. / 5. By any further actuation of the function key S4 you can activate resp. deactivate the signal sound alternating.

Leaving the function
   After the last key pressure of function key S4 you can leave the special program as follows.
   After 60 seconds all displays go out automatically, except LD1 of the ON/OFF key
   or
   the appliance is switched off by the ON/OFF key S1.

Saving the set condition
   The condition is saved directly after any entry.

14.1. Service function / readout of fault memory and single actuator selection:

General information

- Calling the service functions is executed in all designs resp. key arrangements analogously.
- For that you always have to use keys S1, S2, S3 and S4 independent of their variant-depending program load.
- In the service function mode, key S2 is ALWAYS responsible for the function "readout of fault memory" and "single actuator selection".

vertical key arrangement

horizontal key arrangement

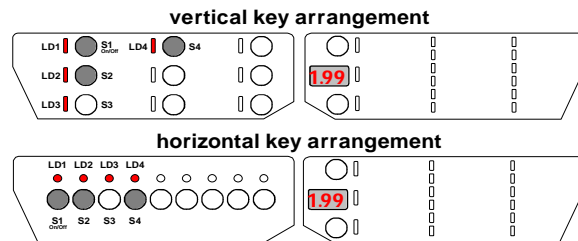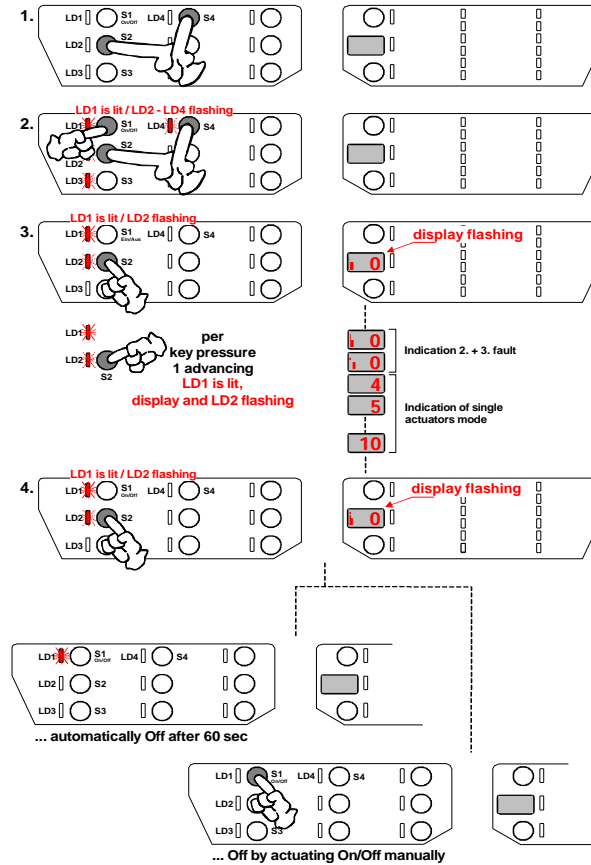- A considerable difference regarding the output is represented by appliance variants with resp. without display.
  For this reason, this page describes the output for appliances with display.
  Page 14.2. describes the output for appliances without display.

⚠️**It is generally valid:**
For calling all service functions you always have first to actuate function keys S2 and S4 before switching on the appliance by the ON/OFF switch S1!
The keys have to remain pressed for about 4 seconds to activate the function.
This procedure is intentionally different to that for the customer functions.

Calling above-mentioned service function (appliances with display)

1. LD1 is lit / LD2 - LD4 flashing

2.

3. LD1 is lit / LD2 flashing — display flashing

per key pressure 1 advancing LD1 is lit, display and LD2 flashing

Indication 2. + 3. fault

Indication of single actuators mode

4. LD1 is lit / LD2 flashing — display flashing

... automatically Off after 60 sec

... Off by actuating On/Off manually

The various steps are switched onward manually by pressing the key. If the function key S2 is not pressed within 60 seconds, the service function is left automatically. All displays except the LD1 LED of the ON/OFF key go out. It is also possible to leave the function by switching off the appliance using the ON/OFF key S1.

Calling the functions
**"readout of fault memory" and "single actuator selection"**

1. Press keys S2 and S4 simultaneously and ...

2. ... and switch on the appliance by ON/OFF switch S1.
   For that keep the keys S2 and S4 pressed simultaneously until the 3 confirmation LEDs LD2, LD3 and LD4 are flashing. (about 4 seconds) The LD1 display with ON/OFF key is lit.
   (A temporary flashing up of LEDs is possible and no fault!)

3. / 4. By actuating the function key S2 you now can call the function.
   The confirmation LED LD2 is flashing and the ON/OFF LED continues to be lit, LEDs LD3 and LD4 go out.
   The first value of the fault memory is indicated in the display. The display indication is flashing.
   By any further actuation of the function key S2 it is possible to call the next step and indicate it in the display as follows.
   2. actuation: Display of second value of the fault memory
   3. actuation: Display of third value of the fault memory
   (see description page B 19 / "Survey of fault displays")
   4. actuation: Display "4" - selection of regeneration valve
   5. actuation: Display "5" - selection of drain pump
   6. actuation: Display "6" - selection of valve
     (filling to level - if level already existing, no filling)
   7. actuation: Display "7" - selection of heating
     (only when level detected)
   8. actuation: Display "8" - selection of circulation pump
   9. actuation: Display "9" - selection of detergent dispenser
   10.actuation: Display "10" - selection of drying fan
   11.actuation: Display "11" - selection of auto-dosing
     (is currently not used)
   12.actuation: Display "12" - selection of water hardness sensor
     (is currently not used)
   All positions can be called scrolling as many times as one wants.

14.2. Service function / readout of fault memory and single actuator selection:

General information

- Calling the service functions is executed in all designs resp. key arrangements analogously.
- For that you always have to use keys S1, S2, S3 and S4 indepedent of their variant-depending program load.
- In the service function mode, key S2 is ALWAYS responsible for the functions "readout of fault memory" and "single actuator selection".
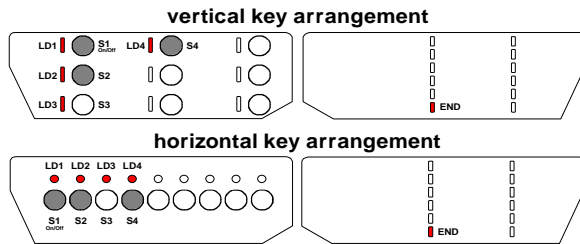
vertical key arrangement
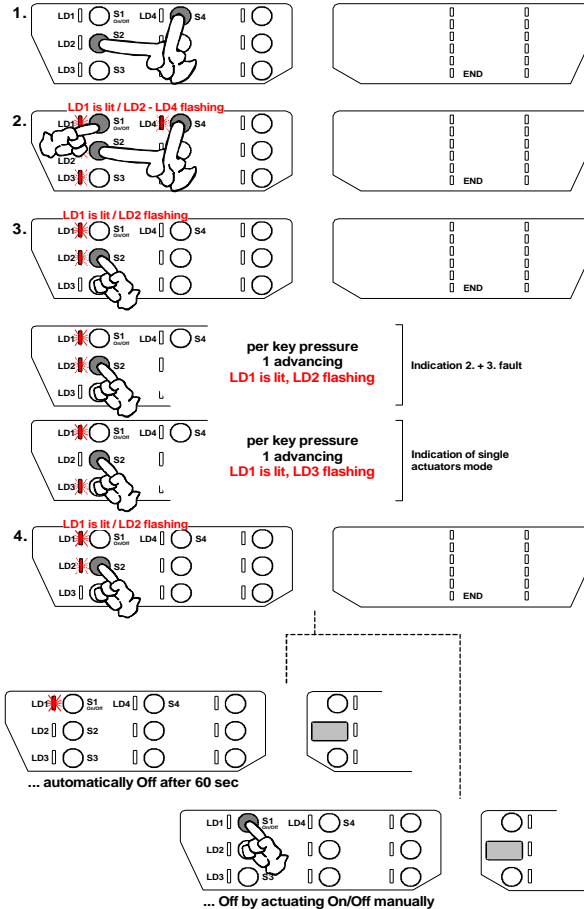

horizontal key arrangement

- A considerable difference regarding the output is represented by appliance variants with resp. without display. For this reason, this page describes the output for appliances without display.
Page 14.1. describes the output for appliances with display.

⚠️ **It is generally valid:**
For calling all service functions you always have first to actuate function keys S2 and S4 before switching on the appliance by the ON/OFF switch S1!
The keys have to remain pressed for about 4 seconds to activate the function.
This procedure is intentionally different to that for the customer functions.

Calling above-mentioned service function (appliances without display)

1.

2. LD1 is lit / LD2 - LD4 flashing

3. LD1 is lit / LD2 flashing

per key pressure 1 advancing
LD1 is lit, LD2 flashing — Indication 2. + 3. fault

per key pressure 1 advancing
LD1 is lit, LD3 flashing — Indication of single actuators mode

4. LD1 is lit / LD2 flashing

... automatically Off after 60 sec

... Off by actuating On/Off manually

Calling the functions
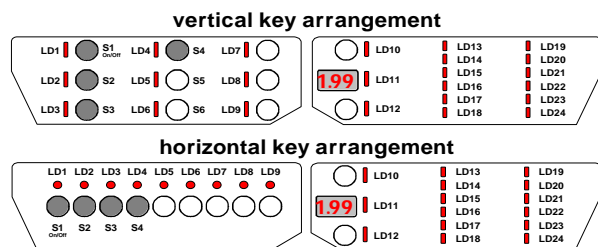**"readout of fault memory" and "single actuator selection"**

1. Press keys S2 and S4 simultaneously and ...

2. ... and switch on the appliance by ON/OFF switch S1.
For that keep the keys S2 and S4 pressed simultaneously until the 3 confirmation LEDs LD2, LD3 and LD4 are flashing. (about 4 seconds). The LD1 display with ON/OFF key is lit.
(A temporary flashing up of LEDs is possible and no fault!)

3. / 4. By actuating the function key S2 you now can call the function.
The confirmation LED LD2 is flashing and the ON/OFF LED continues flashing, LEDs LD3 and LD4 go out.
The first pressure on key S2 is indicated by the "END" LED.
By the second and third key pressure on S2 it is possible to read out the second and third value of the fault memory.
(see description page B 19 / "Survey of fault displays")
From the 4. key pressure onward on key S2 the LED LD2 goes out and the LD3 starts flashing.
Now you can call the single actuators one after the other.
4. actuation: selection of regeneration valve
5. actuation: selection of drain pump
6. actuation: selection of the valve
(filling to level - if leavel already existing, no filling)
7. actuation: selection of heating
(only when level detected)
8. actuation: selection of circulation pump
9. actuation: selection of detergent dispenser
10. actuation: selection of drying fan
11. actuation: selection of auto-dosing
(is currently not used)
12. actuation: selection of water hardness sensor
(is currently not used)
All positions can be called scrolling as many times as one wants.

The various steps are switched onward manually. If the function key S2 is not pressed within 60 seconds, the service function is left automatically. All displays go out except the LD1 LED of the ON/OFF key. It is also possible to leave the function by switching off the appliance using the ON/OFF key S1.

15. Service function / LED test with integrated deletion of the fault memory:

General information

- Calling the service functions is executed in all designs resp. key arrangements analogously.
- For that you always have to use keys S1, S2, S3 and S4 independent of their variant-depending program load.
- In the service function mode, key S3 is ALWAYS responsible for the function "LED test with integrated deletion of the fault memory".

vertical key arrangement

horizontal key arrangement

It is generally valid:
For calling all service functions you always have first to actuate function keys S2 and S4 before switching on the appliance by the ON/OFF switch S1! The keys have to remain pressed for about 4 seconds to activate the function.
This procedure is intentionally different to that for the customer functions.

Calling above-mentioned service function

1.

2. **LD1 is lit / LD2 - LD4 flashing**

3. **LD1 is lit / all other LEDs and display flashing**

188

... automatically Off after 30 sec

... Off by actuating On/Off manually

Calling the functions
"LED test with integrated deletion of the fault memory"

1. Press keys S2 and S4 simultaneously and ...

2. ... and switch on the appliance by ON/OFF switch S1.
    For that keep the keys S2 and S4 pressed simultaneously until the 3 confirmation LEDs LD2, LD3 and LD4 are flashing. (about 4 seconds) The LD1 display with ON/OFF key is lit.
    (A temporary flashing up of LEDs is possible and no fault!)

3. By actuating the function key S3 you now can call the function.
    All LEDs (except LD1) and "188" in the display are flashing about 30 seconds.
    Furthermore, if available depending on variant and if active, the signal sound is indicated during the whole flashing time.

Leaving the function / deletion of the fault memory

When all above-mentioned LEDs resp. the display have been flashing for about 30 seconds, the function will be left automatically. The appliance is in the "prestart" mode again. The function can be left even earlier by switching off the appliance by the ON/OFF key S1.

In any case, the service fault memory is deleted.

16. Service function / manufacturing test routine:
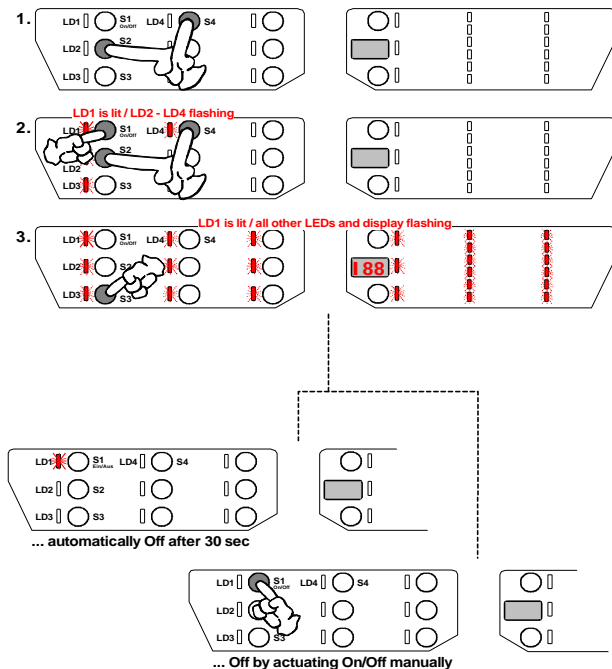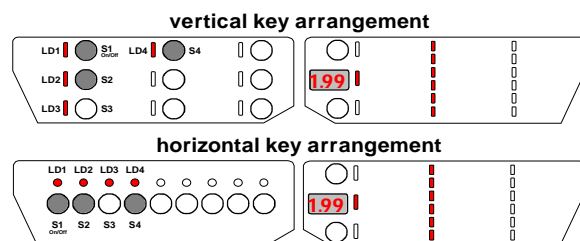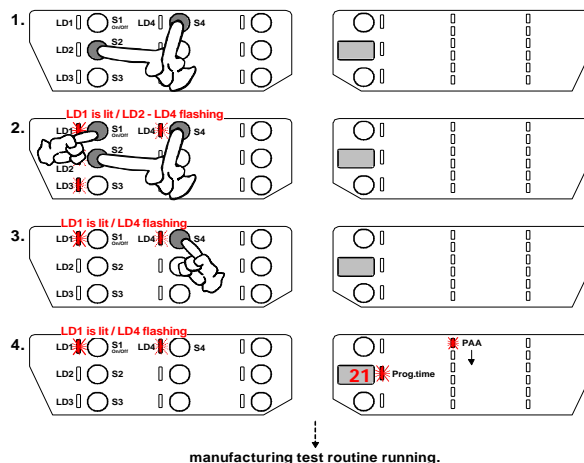
General information

- Calling the service functions is executed in all designs resp. key arrangements analogously.
- For that you always have to use keys S1, S2, S3 and S4 independent of their variant-depending program load.
- In the service function mode, key S4 is ALWAYS responsible for calling the "manufacturing test routine"

vertical key arrangement

horizontal key arrangement

⚠️ **It is generally valid:**
For calling all service functions you always have first to actuate function keys S2 and S4 before switching on the appliance by the ON/OFF switch S1! The keys have to remain pressed for about 4 seconds to activate the function.
This procedure is intentionally different to that for the customer functions.

Calling above-mentioned service function

1.

2. **LD1 is lit / LD2 - LD4 flashing**

3. **LD1 is lit / LD4 flashing**

4. **LD1 is lit / LD4 flashing**

manufacturing test routine running.

Calling the function "manufacturing test routine"

1. Press keys S2 and S4 simultaneously and ...

2. ... and switch on the appliance with ON/OFF switch S1.
   For that keep the keys S2 and S4 pressed simultaneously until the 3 confirmation LEDs LD2, LD3 and LD4 are flashing. (about 4 seconds) The LD1 display with ON/OFF key is lit.
   (A temporary flashing up of LEDs is possible and no fault!)

3. By actuating the function key S4 you now can call the manufacturing test routine. The confirmation LED LD4 is flashing and the ON/OFF LED continues to be lit, LEDs LD2 and LD3 go out.

4. The test routine starts automatically.
   Following displays are available depending on the variant of equipment.
   The run time LED is flashing up.
   The display indicates the presumable run time.
   The corresponding PAA LEDs are lit.

From that moment the same input philosophy is valid for the manufacturing test routine as for normal washing cycles, but the program LED LD4 is flashing until the end of the manufacturing test routine.

- ☞ *cycle run and cycle end*
  (see description page B 5)
- ☞ *delete cycle in advance*
  (see description page B 6)
- ☞ *interrupt program*
  (see description page B 8)

17. Service function / disconnection pulse wash

General information

- Calling the Service Functions is similar with all designs or key arrangements.
- Always use the keys S1, S2, S3 and S4 independently from their program assignment depending on the model.
- In service function mode, you can ALWAYS call the Pulse Wash function by using keys S3 and S4. Use key S3 to modify the setting.

- From works settings, Pulse Wash is always set to be active.

vertical key arrangement

horizontal key arrangement
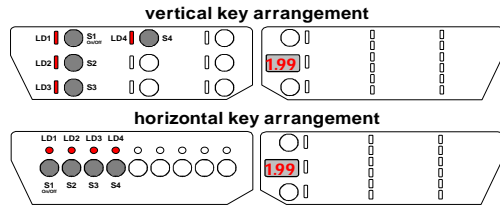
- **If you deselect Pulse Wash the rot.speeds of the circul. pump are always increased to "High Pulse Speed".**
  Water consumption slightly increases. Extension of time is possible depending on the temperature.
- **Table for the indication of on/off status:**

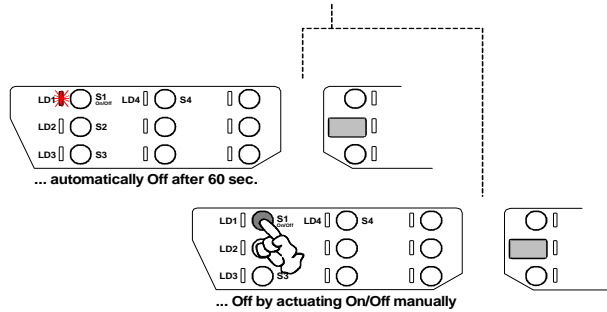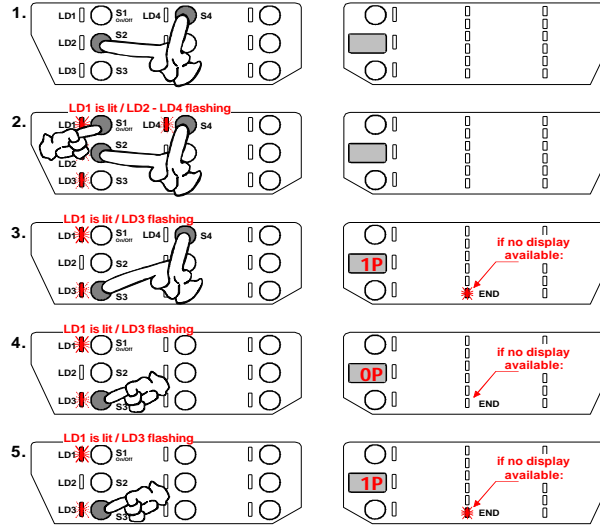| display	"End"-LED	comment
indication		
	if no display available depending on variant	
1P	on	Pulse Wash is activ
0P	off	Pulse Wash is switched off

⚠️ **Always applicable:**
In order to call the totality of service functions always first press the function keys S2 and S4 prior to switching the appliance on by means of ON/OFF switch S1!
Keep the keys pressed for abt. 4 seconds in order to activate the function. This procedure is intentionally distinguished from those for the customer functions.
ATTENTION: In case of reduced key assemblies be sure to observe Description Page B 1.

Calling above-mentioned service function

1.

2. LD1 is lit / LD2 - LD4 flashing

3. LD1 is lit / LD3 flashing — 1P — if no display available: END

4. LD1 is lit / LD3 flashing — 0P — if no display available: END

5. LD1 is lit / LD3 flashing — 1P — if no display available: END

... automatically Off after 60 sec.

... Off by actuating On/Off manually

Calling the function "Switch OFF Pulse Wash"

1. Simultaneously press S2 and S4 and ...

2. ... switch on the appliance with ON/OFF switch S1.
   Keep keys S2 and S4 pressed simultaneously until the 3 acknowledging LEDs LD2, LD3 and LD4 are flashing. (for abt. 4 seconds). Indicator LD1 at ON/OFF key lights up.
   (Short-time illumination of LEDs is possible and does not constitute any fault)

3. Simultaneously press S3 and S4 until the acknowledging LED LD3 is flashing. LEDs LD2 and LD4 will go dark. Indicator LD1 at ON/OFF key is lit.
   The current status whether Pulse Wash is active or not is indicated in the display. If there is no display available on the model, the value is indicated by means of LED "End"
   (also refer to Table left on this page)

Switching the Pulse Wash Function on or off:
4. / 5. Any further activation of function key S3 will switch the addition alternately on or off.

Abandoning the function
After the last activation of function key S3 you can leave the special program as follows:
After 60 seconds automatically all indications will go dark, except for the LD1 of the ON/OFF key
or
you switch the appliance off by means of ON/OFF key S1.

Saving the status settings
Immediately after each input of data, the currently valid status will be saved.

18. Service function / additional rinsing process

General information

- Calling the Service Functions is similar with all designs or key arrangements.
- Always use the keys S1, S2, S3 and S4 independently from their program assignment depending on the model.
- In service function mode, you can ALWAYS call "Selection of an Add. Wash Cycle" with key combination S2 and S3. Use key S2 to modify the settings.
- From the works settings, no additional wash cycle is set.

Tastenanordnung senkrecht

Tastenanordnung waagrecht
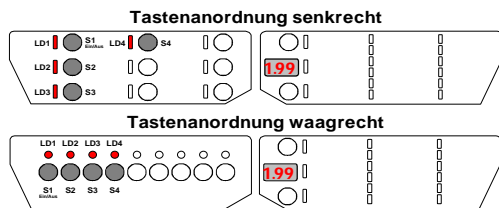
- **If this function is activated, an additional wash cycle is ALWAYS added, except for "prewash extra".**
  This will extend program run times up to about 10 minutes. This additional wash cycle will be executed until the function is deactivated again.
- **Table for the indication of on/off status:**

indication		comment
display	"End"-LED	
	if no display available depending on variant	
1d	on	Additional wash cycle selected
0d	off	No addititonal wash cycle

⚠️ **Always applicable:**

In order to call the totality of service functions always first press the function keys S2 and S4 prior to switching the appliance on by means of ON/OFF switch S1!
Keep the keys pressed for abt. 4 seconds in order to activate the function. This procedure is intentionally distinguished from those for the customer functions.
ATTENTION: In case of reduced key assemblies be sure to observe Description Page B 1.

Calling above-mentioned service function

1.

2. LD1 is lit / LD2 - LD4 flashing

3. LD1 is lit / LD3 flashing

4. LD1 leuchtet / LD2 blinkt

5. LD1 leuchtet / LD2 blinkt

... automatically Off after 60 sec.

... Off by actuating On/Off manually

Calling the function "Additional Wash Cycle"

1. Simultaneously press S2 and S4 and ...

2. ... switch on the appliance with ON/OFF switch S1.
   Keep keys S2 and S4 pressed simultaneously until the 3 acknowledging LEDs LD2, LD3 and LD4 are flashing. (for abt. 4 seconds). Indicator LD1 at ON/OFF key lights up.
   (Short-time illumination of LEDs is possible and does not constitute any fault)

3. Simultaneously press S2 and S3 until the acknowledging LED LED LD3 is flashing. LEDs LD3 and LD4 will go dark.
   Indicator LD1 at ON/OFF key is lit.
   The current status whether the additional wash cycle is activated or not, is indicated in the display. If no display is available on this model, the value is indicated by means of the "End" LED.
   (also refer to Table left on this page)

Switching this function on or off:
4. / 5. Any further activation of function key S2 will switch the addition alternately on or off.

Abandoning the function
After the last activation of function key S2 you can leave the special program as follows:
After 60 seconds automatically all indications will go dark, except for the LD1 of the ON/OFF key
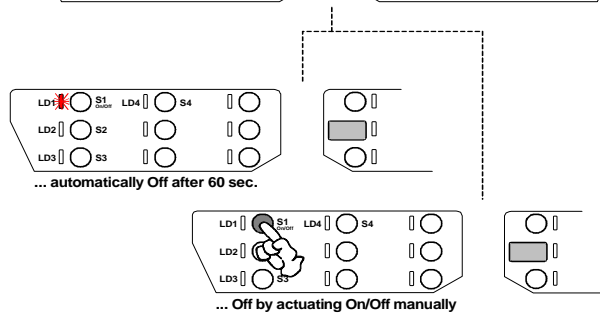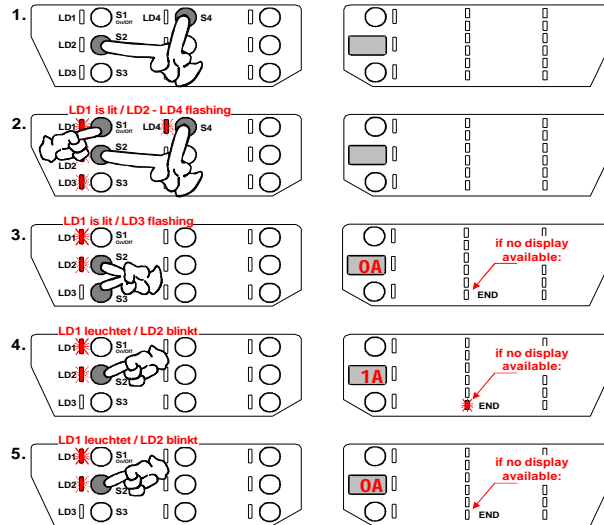or
you switch the appliance off by means of ON/OFF key S1.

Saving the status settings
Immediately after each input of data, the currently valid status will be saved.

Overview Errors Displayed

Applicable for EDW1500 / 1503 (VGA) -- EDW1100 / 1003 (VGA) -- EDW2000

Error Name	Display on Screen	Display by END LED	Acoustic Indication No.of Beeps	Error Display visible for Customer**		Call Error Memory (Service)		Output via Indicator Lamp	Short Explanation	What happens?
		2Hz / 5sec. Pause	2Hz / 5sec. Pause	Display PAA	AK	Display PAA	AK			
	EDW 1500	EDW1100	If available for this model					If available for this model		
Water tap closed	⌐10	1 x flashing	1 x	☺	☺	☺	☺	LED Water	Switchpoint of pressostat is not reached after max. 60 secs. (only in programme steps incl. Filling up to level!)	Programme stops and can be continued after error remedy by pressing the programme key. If fault is not corrected and programme key is pressed, the machine runs dry until next subprogramme.
Drain pump	⌐20	2 x flashing	2 x	☺	☺	☺	☺	---	Reset point of pressostat is not reached after max. 120secs. Programme stop.	Programme stops and can be continued after error remedy by pressing the programme key.
Aqua-Control	⌐30	3 x flashing	3 x	☺	☺	☺	☺	---	Aqua-Control System switches off solenoid directly.	Programme stops and restarts automatically when error has terminated.
Recycling pump Triac short-circuit	⌐50	5 x flashing	5 x	☺		☺	☺	---	Tacho signals are recognized although rec. pump is not selected.	Programme stops and water is filled up until reset point of pressostat
Heating	⌐60	6 x flashing	6 x			☺	☺	---	During heating, temperature rise by min. 1.5K is not detected within 3min.	Programme is continued until its end without heating function!
NTC Sensor	⌐70	7 x flashing	7 x			☺	☺	---	NTC short-circuit or break.	Programme is continued until its end without heating function!
EEPROM	⌐80	8 x flashing	8 x	☺ ?				---	Communication error with ext. EEPROM	
Check sum MCF / CCF	⌐90	9 x flashing	9 x			☺	☺	---	Check sum (model programming) MCF or Check sum CCF not OK. Only recognized after switching on!	Programme selection not possible. On/Off LED is on
Sprayarm blocked	⌐A0	10 x flashing	10 x		☺	☺	☺	LED Spray arm	At programme start and each subprogramme start, also after door open/close or mains failure, spray arm rotation is checked and evaluated.	Error display until sprayarm speed is recognized, or if no control.
Turpidity sensor	⌐b0	11 x flashing	11 x			☺	☺	---	The turbidity signal required for calibration is not reached with 15secs.	Always recognition of turbidity. Programme sequence is adapted accordingly.
Communication error	⌐C0	12 x flashing	12 x			☺	☺	---	Communication failure with User Interface.	Machine stops, waiting until communication is cleared.
Tacho	⌐d0	13 x flashing	13 x			☺	☺	---	Recycling pump selected, but no tacho signal recognized for 5 + 20 secs	Recycling pump without control, heating off. This function is checked again on each step.
Filling time error	⌐F0	15 x flashing	15 x			☺	☺	---	Time limit during filling exceeded	Programme is completed until next subprogramme without level. No further filling up of water top up. Error is reset after one complete drain cycle.

** = If 7-Segment display available, no PAA error display/Sound error display generally with VGA, with other machines depending on model

DGN-TDS-N

List of Possible Error Causes

Code			Possible error causes
i10	No or not enough water let in		Water tap is closed or faulty
			No water pressure, pressure too low or changing
			Screen in front of inlet valve clogged
			Flow governor at inlet valve faulty
			Inlet valve faulty
			Inlet valve deenergized (faulty wiring or no activation by electronics)
			Inlet hose bent
			Softener system clogged (by filling detergent into salt compartment, for instance)
	Machine runs dry (Siphon effect)		Upright installation without upright assembly kit
			Connection height of the discharge hose is lower than 30cm above appliance base
			Connection w/o siphon or air chamber
	Water level inside appliance is not detected		Pressure controller faulty
			Pressure controller hose obstructed, bent or leaking
			Pressure controller wiring is faulty
			Screens in the appliance clogged (also check spray arm nozzles for clogging)
i20	Water is not pumped off		Fault with discharge pump
			Discharge pump deenergized (faulty wiring or no activation by electronics)
			Obstruction/blocking (filters in the appliance, discharge opening in discharge trough, discharge pump, discharge hose, siphon, cover plug at siphon connection not removed during first commissioning)
			Discharge hose bent or connection height above 100cm
			Ball valve in discharge trough glued / blocked (discharge pump does not aerate)
	Water level inside appliance is not detected		Pressure controller faulty
			Pressure controller hose obstructed or bent
			Insulation fault with heating element
i30	Water remains in base trough	Leakage	Leakage at recipient, discharge trough, hose system (e.g., Y-type hose), regeneration dosage etc.
		Overflow	Inlet valve faulty (does not close)
			Water inlet too high (faulty flow governor at inlet valve)
			Connecting hose regenerating dosing to discharge trough blocked
			Water inlet channels in regeneration dosing unit blocked
			Screens in the appliance clogged (also check spray arm nozzles for clogging)
			Pressure controller faulty
			Pressure controller hose obstructed, bent or leaking
			Pressure controller wiring is faulty
			Foam production in the appliance (splashed rinsing liquid / leaking dosing unit or con-compatible detergent / rinsing agent used)
	Base trough is dry		Inlet valve or wiring electrically interrupted
i50	Motor triac short-circuit		Faulty electronics
i60	No rise in temperature		Heating element faulty
			Heating element deenergized (faulty wiring or no activation by electronics)
i70	NTC signal faulty		Thermal sensor defect
			Wiring faulty (e.g. short-circuit or interruption)
i80	Check sum error EEPROM		Mains filter defect
			Faulty electronics
			EMC problem
i90	Check sum error model programmation		Faulty electronics
iA0	Upper spray arm does not rotate		Blocking by dishes or cutlery basket
			Nozzles clogged (drive nozzles at spray arm extremities)
			Spray arm leaking (welding seam)
			Spray arm bearing blocked (dirt, foreign bodies)
			Screens in the appliance clogged
			Bellows at connecting pipe not sealed at recipient rear wall (bellows not contacting/glued together)
			Circulating pump does not reach full power (nominal speed is not reached due to winding influence)
			Too little water in appliance - for possible causes see Error codes i10 and iF0
			Foam production in the appliance (splashed rinsing liquid / leaking dosing unit or con-compatible detergent / rinsing agent used)
	No spray arm detection		No magnet in spray arm
			Spray arm detection sensor faulty
			Wiring faulty
ib0	turbidity signal faulty		turbidity sensor defect
			Wiring faulty
			turbidity sensor dirty
			Foam production in the appliance (splashed rinsing liquid / leaking dosing unit or con-compatible detergent / rinsing agent used)
ic0	communication faulty		Faulty electronics
			Wiring faulty
id0	Circulation pump no function		Circulating pump / capacitor defect
			Circulating pump deenergized (faulty wiring or no activation by electronics)
	No tacho signal recognized		Tachometer generator defect
			Wiring faulty
iF0	Time limit during filling exceeded		Problem with water inlet in general - see Error code i10, pipette effect in particular (also look for an error memory entry i10)
			Problem by incomplete pumping in previous program cycle (remaining water) - see Error code i20 (also look for an error memory entry i20)
			Improper loading, e.g. big item (pot, bowl is reversed and fills with water)
			Foam production in the appliance (splashed rinsing liquid / leaking dosing unit or con-compatible detergent / rinsing agent used)