



# Service Manual

Washing machine

Toploader

AWE 9725

<b>Model Version</b>		<b>Page</b>
AWE 9725		
8593 972 10057		
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	Family	OMEGA



R o H S

**Technical data****Dimensions**

Height	85	cm
Width	40	cm
Depth	60	cm

**Weight**

Net weight	~62	kg
With package	~64	kg

**Main Connection**

Voltage	230	V ± 10%
Frequency	50	Hz
Power consumption	~2.3	kW
Fuse rating	10	A

**Drum**

Door wide	210	mm
Volume	42	l
Wash spin	52	rpm
Speed spinning max.	1200	rpm

**Capacity of dry laundry**

Cotton	5	kg
Cotton short	3	kg
Easy care	2	kg
Daily mixed	3	kg
Super rapid	1.5	kg
Delicate	1.5	kg
Handwash	1	kg
Wool	1	kg

**Pressostat**

Kind of switch	2-level pressoswitch with overflow contact	
Type	B1-117	
Nominal voltage	230	V

**Water Level**

Foam level (11 - 12, 14)		
Switching point	50 ± 5	mmWc
Switching back point	30 ± 5	mmWc

Overflow (21 - 26)	280 ± 20	mmWc
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**Nominal currents**

Contacts		
11 - 12	4 (4)	mA
11 - 14	16 (4)	A
11 - 16	1 (1)	A

**Door lock (5-pole)**

Type	BP P/5	
Nominal voltage	230 (90 - 264) V	
Nominal current:		
Contact 4 - 5	16 (4)	A
Lock time	≤5"	
Unlock time	≤180"	

**Heating element**

Kind of heating	Tubular heating element with NTC - sensor	
Nominal voltage	230 +10%, -15% V	
Nominal power	2050	W ± 5%
Resistance (20 °C)	23.9	Ω ± 5%
Thermo-fuse (switch OFF temperature)	152	°C
Leakage current (<99 °C)	<0.8	mA

**NTC sensor**

Resistance NTC:		
0 °C	35.9	kΩ ± 5.8%
30 °C	9.8	kΩ ± 3.7%
40 °C	6.6	kΩ ± 3.1%
50 °C	4.6	kΩ ± 2.6%
60 °C	3.2	kΩ ± 2.0%
70 °C	2.3	kΩ ± 2.5%
95 °C	1.1	kΩ ± 3.7%

**Inlet valve**

Kind of valve	1-way valve for cold water	
Water temperature	<60	°C
Rated flow >1 bar	8	l/min ± 10%
Pressure range	0,2 - 10	bar
Nominal current	40	mA
Nominal power	8.8	VA ± 10%
Nominal resistance	3.8	kΩ ± 10%

## Technical data

### Drain pump (synchronous)

Type	68882/292079		
Nominal/max. current	0.3/0.5/	A	
	0.2/0.22	A	
Nominal power	30/26	W	
Rotation speed	3000	rpm	
Resistor (coil) (25 °C)	164/	$\Omega \pm 7\%$	
	224	$\Omega \pm 5\%$	
Capacity	14 ± 2	l/min	
Position of draining hose outlet	min.	0.9	m
	max.	1.25	m

### Control board

Type	OMEGA		
Timer basic	4619 710 90281		
Timer programmed	4619 751 54431		

### Motor

Type	MCA 52/64 - 148/ALE		
Belt ratio	i = 1:13.3		

### Resistance contacts (20 °C)

Stator (full field)	2.17	$\Omega \pm 7\%$
Stator (tapped field)	1.35	$\Omega \pm 7\%$
Rotor	1.90	$\Omega \pm 7\%$
Tachogenerator	68.70	$\Omega \pm 7\%$

### Input power (230 V AC)

Washing	240	W ± 7%
Rinsing	350	W ± 7%
Spinning (full field)	320	W ± 10%
Spinning (tapped field)	400	W ± 10%

### Radio interference supression

Rated voltage	90 - 250 V	
Rated current	16 A	
Frequency	50/60 Hz	
Nominal capacity	680 nF X1 + 2 x 22 nF Y ± 20%	
Nominal inductance	2 x 1	mH-30+50%
Nominal resistance	680	$k\Omega \pm 10\%$
Derivation current (u = 250 V AC)	≤ 4.15 (2 x 2.075) mA	

### Drum up sensor

Nominal voltage	5	V DC
Nominal current	0,5	mA
Poles	1	
Resistance	150	$m\Omega$
Connection	Wires + RAST 2.5	

### Distrubution actuator

#### Motor:

Nominal voltage	230 +10% -15% V	
Nominal current	13 ± 5	mA
Nominal resistance (20 °C)	6.5	$k\Omega \pm 10\%$

#### Contacts:

Nominal current	1	mA
Nominal voltage	24	V

### Display module

Type	DM LCDE WH03 TL OM
12NC Programs	4619 730 71103 11

### Push button switch

Favorites  
Easy ironing  
Eco  
Pre wash  
Intensive rinse  
Rinse hold

### Selector

Temperature +/-  
Spin/Start delay

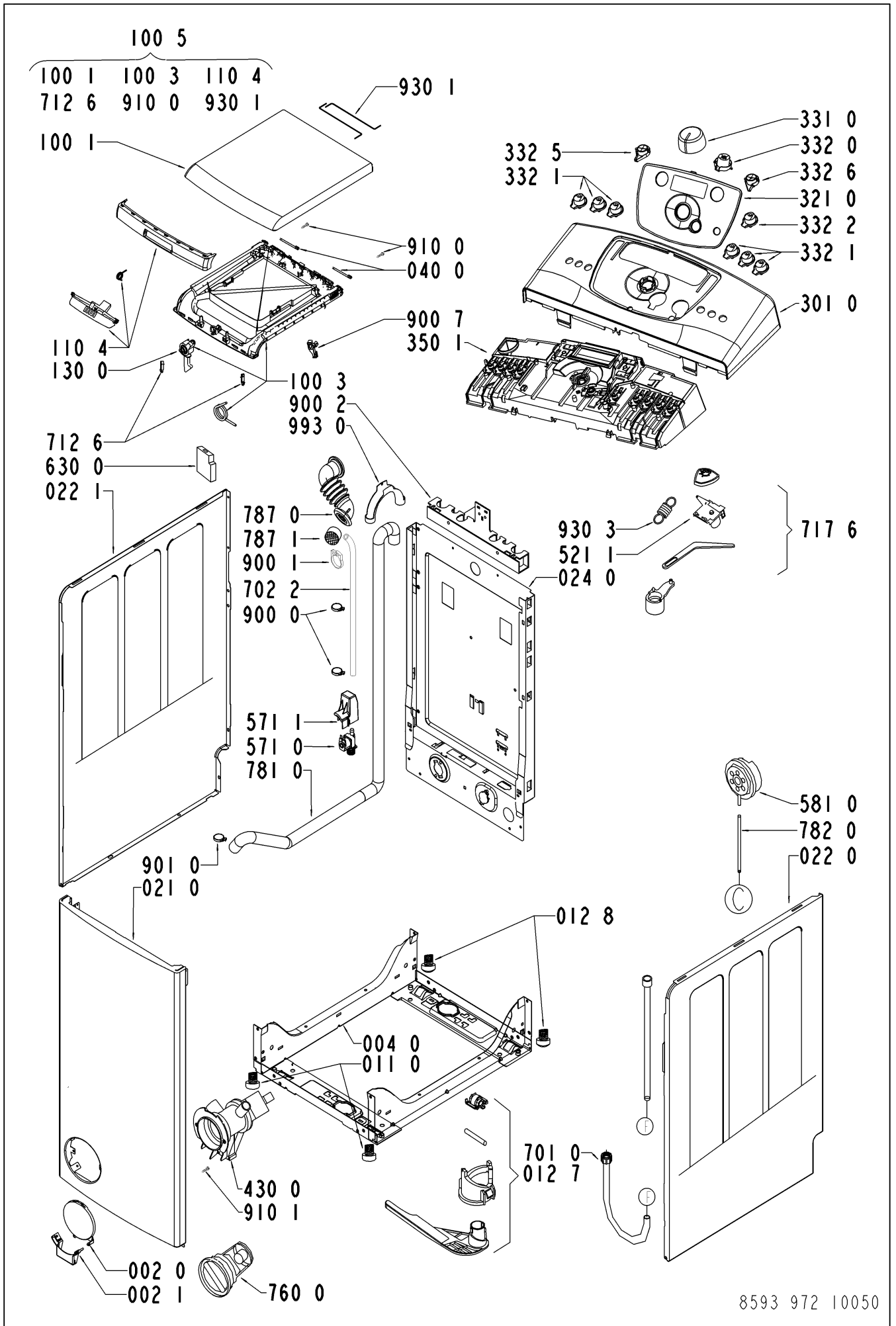
**Spare part list**

**Model** AWE 9725  
**Service No.** 859397210057  
**Version** 859397210057

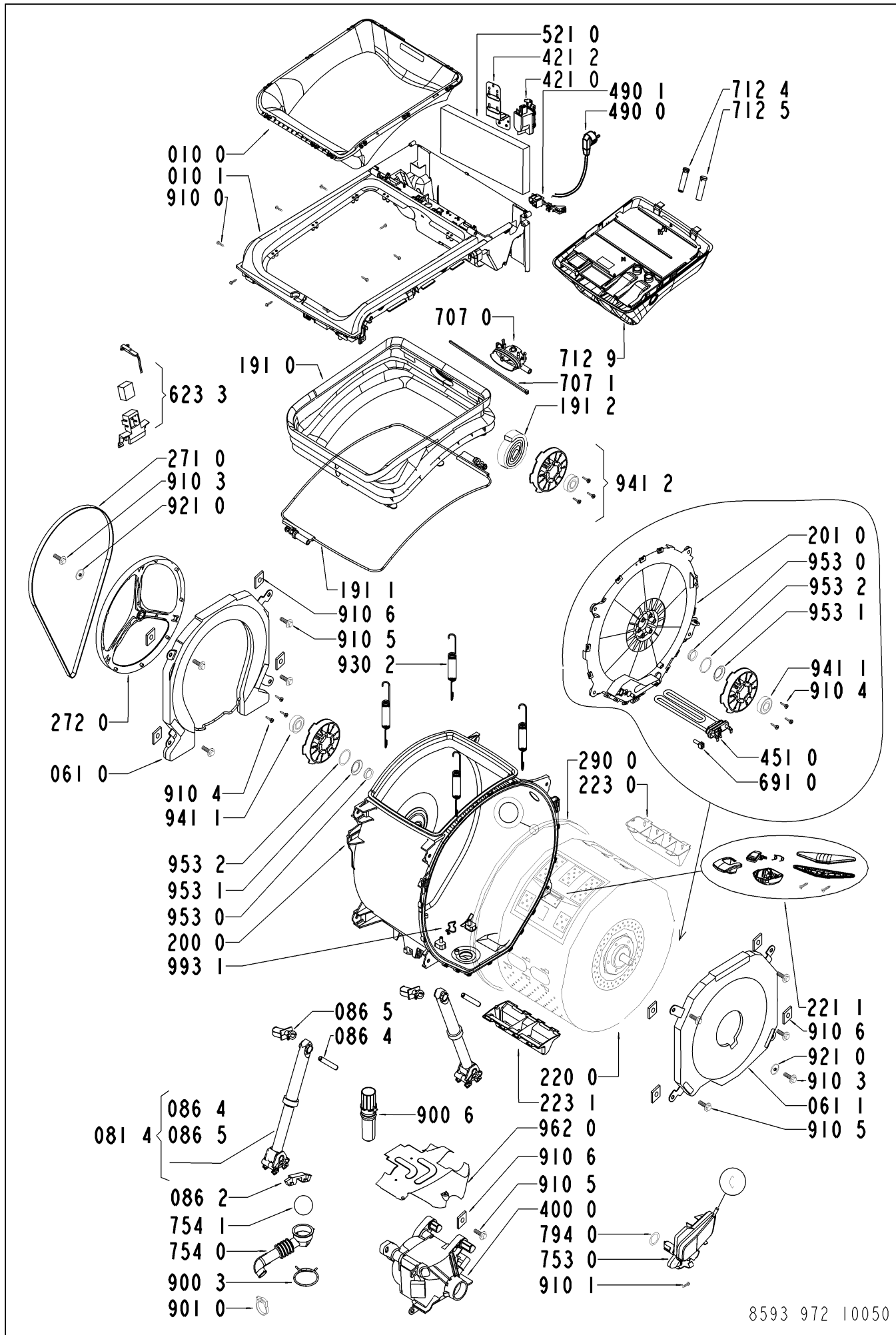
Pos. No.	12NC Code	Description
002 0	<b>4812 459 38057</b>	Flap round GW
002 1	<b>4812 459 38058</b>	Hinge flap GW
004 0	<b>4812 440 10727</b>	Drip tray assy
010 0	<b>4812 459 48185</b>	Door frame inner, soft opening GW
010 1	<b>4812 440 10741</b>	Frame lid outer MH/RFI GW
011 0	<b>4812 462 48054</b>	Foot
012 7	<b>4812 310 18497</b>	Trolley kit front
012 8	<b>4812 528 78046</b>	Foot adjustable rear
021 0	<b>4812 440 10742</b>	Front panel GW
022 0	<b>4812 440 10743</b>	Side panel right GW
022 1	<b>4812 440 10744</b>	Side panel left GW
024 0	<b>4812 440 10732</b>	Rear panel
040 0	<b>4812 417 19155</b>	Hinge bolt lid GW
061 0	<b>4812 466 88466</b>	Counter weight left
061 1	<b>4812 466 88465</b>	Counter weight right
081 4	<b>4812 466 88699</b>	Shock absorber
086 2	<b>4812 401 18412</b>	Stopper
086 4	<b>4812 529 18045</b>	Pin f. Shock absorber
086 5	<b>4812 529 18052</b>	Damper f. Shock absorber
100 1	<b>4812 440 10745</b>	Lid outer GW
100 3	<b>4812 440 10746</b>	Lid inner+hook+spring GW
100 5	<b>4812 440 10747</b>	Lid cpl. WH/MH GW
110 4	<b>4812 498 18248</b>	Handle cpl. WH/MH GW
130 0	<b>4812 417 19156</b>	Hook f. Lid GW
191 0	<b>4812 466 68749</b>	Door bellow
191 1	<b>4812 492 98012</b>	Strap f. Doorbellow
191 2	<b>4812 466 88703</b>	Seal
200 0	<b>4812 418 18407</b>	Tub f.Drum latch
201 0	<b>4812 440 19487</b>	Cover f. Tub
220 0	<b>4812 418 18595</b>	Drum soft op. 210mm
221 1	<b>4812 310 18843</b>	Kit latch f.drum
223 0	<b>4819 418 49713</b>	Drum lifter
223 1	<b>4812 418 48605</b>	Drum lifter 54 mm with weight
271 0	<b>4812 358 18206</b>	Belt PV 1236 J4 EL
272 0	<b>4812 528 88111</b>	Pulley with fastener
290 0	<b>4812 532 68078</b>	Gasket
301 0	<b>4812 452 15491</b>	Control panel AWE 9725
321 0	<b>4812 452 15497</b>	Insert panel
331 0	<b>4812 412 59089</b>	Knob timer EBL
332 0	<b>4812 410 29015</b>	Button Start GW
332 1	<b>4812 410 29016</b>	Button option with LED GW
332 2	<b>4812 410 29017</b>	Button option GW
332 5	<b>4812 410 29243</b>	Button temperature
332 6	<b>4812 410 29244</b>	Button spinning
350 1	<b>4812 214 58334</b>	Display Module 1400
400 0	<b>4812 361 58387</b>	Motor MCA 52/64-148 ALE
421 0	<b>4812 121 18285</b>	Interf.filter 1,00 µ F
421 2	<b>4812 404 38708</b>	Holder RFI
430 0	<b>4812 360 18529</b>	Pump,draining
451 0	<b>4812 259 28919</b>	Heating element 2050W, 230V + NTC
490 0	<b>4819 321 18136</b>	Cable mains 2m SA
490 1	<b>4812 321 28367</b>	Strain relief
521 0	<b>4812 214 79589</b>	Control board OMEGA, programmed
521 1	<b>4812 323 18006</b>	Actuator f. Distribution
571 0	<b>4812 281 28393</b>	Valve magnet

Pos. No.	12NC Code	Description
571 1	<b>4812 281 18049</b>	Cover f. valve
581 0	<b>4812 271 28382</b>	Pressostat single EATON
623 3	<b>4812 418 18446</b>	Drum up OMEGA
630 0	<b>4812 271 38364</b>	Door lock
691 0	<b>4812 282 19485</b>	Sensor NTC SC1,OMEGA3
701 0	<b>4812 530 29329</b>	Hose inlet EN 11770 Reflex
702 2	<b>4812 530 28871</b>	Hose VALVE-DISPENSER
707 0	<b>4812 526 48122</b>	Nozzle box cold cpl.
707 1	<b>4812 526 48049</b>	Clamp f. nozzle box
712 4	<b>4812 418 68302</b>	Siphon f. softener
712 5	<b>4812 418 68303</b>	Siphon f. bleach
712 6	<b>4812 418 68164</b>	Clip SOAP DISPENSER
712 9	<b>4812 418 68359</b>	Soap dispenser cpl. 4 ch.
717 6	<b>4812 323 18005</b>	Distributor System
753 0	<b>4812 530 28874</b>	Chamber,air
754 0	<b>4812 530 29267</b>	Drainhose
754 1	<b>4812 530 28832</b>	Lock eco
760 0	<b>4812 480 58089</b>	Filter set pump
781 0	<b>4819 530 29035</b>	Hose draining
782 0	<b>4812 530 29268</b>	Hose Pressostat
787 0	<b>4812 530 18043</b>	Hose Exhaust W/O hole
787 1	<b>4812 580 38007</b>	Sponge
794 0	<b>4812 530 58098</b>	Gasket Airtrap
900 0	<b>4819 401 18686</b>	Clamp hose
900 1	<b>4812 401 18431</b>	Clamp to pump
900 2	<b>4812 404 38711</b>	Holder Hose
900 3	<b>4819 401 18529</b>	Clamp hose
900 6	<b>4812 400 18048</b>	Pin
900 7	<b>4812 401 18447</b>	Clamp top frame
901 0	<b>4812 401 18462</b>	Clamp hose drain hose
910 0	<b>4812 502 48347</b>	Screw,selftap 3,5x14SS
910 1	<b>4812 502 38151</b>	Screw 4x14
910 3	<b>4812 502 18404</b>	Screw
910 4	<b>4812 502 18402</b>	Screw 7x18
910 5	<b>4812 502 18401</b>	Screw M8X 35
910 6	<b>4812 502 18399</b>	Nut Push in M 8
921 0	<b>4812 400 18047</b>	Washer
930 1	<b>4812 492 48171</b>	Torsions spring
930 2	<b>4812 492 48086</b>	Spring
930 3	<b>4812 323 18011</b>	Spring f. Lever
941 1	<b>4812 520 28002</b>	Bearing,ball 6203 2Z C3
941 2	<b>4812 520 28182</b>	Bearing,ball kit
953 0	<b>4812 325 68001</b>	Shaft seal
953 1	<b>4812 520 28073</b>	Ring counterface
953 2	<b>4812 530 68017</b>	O-Ring
962 0	<b>4812 440 19497</b>	Cover f. Motor
993 0	<b>4819 530 29028</b>	Bow
993 1	<b>4812 290 18031</b>	Clamp heatingelement+screw

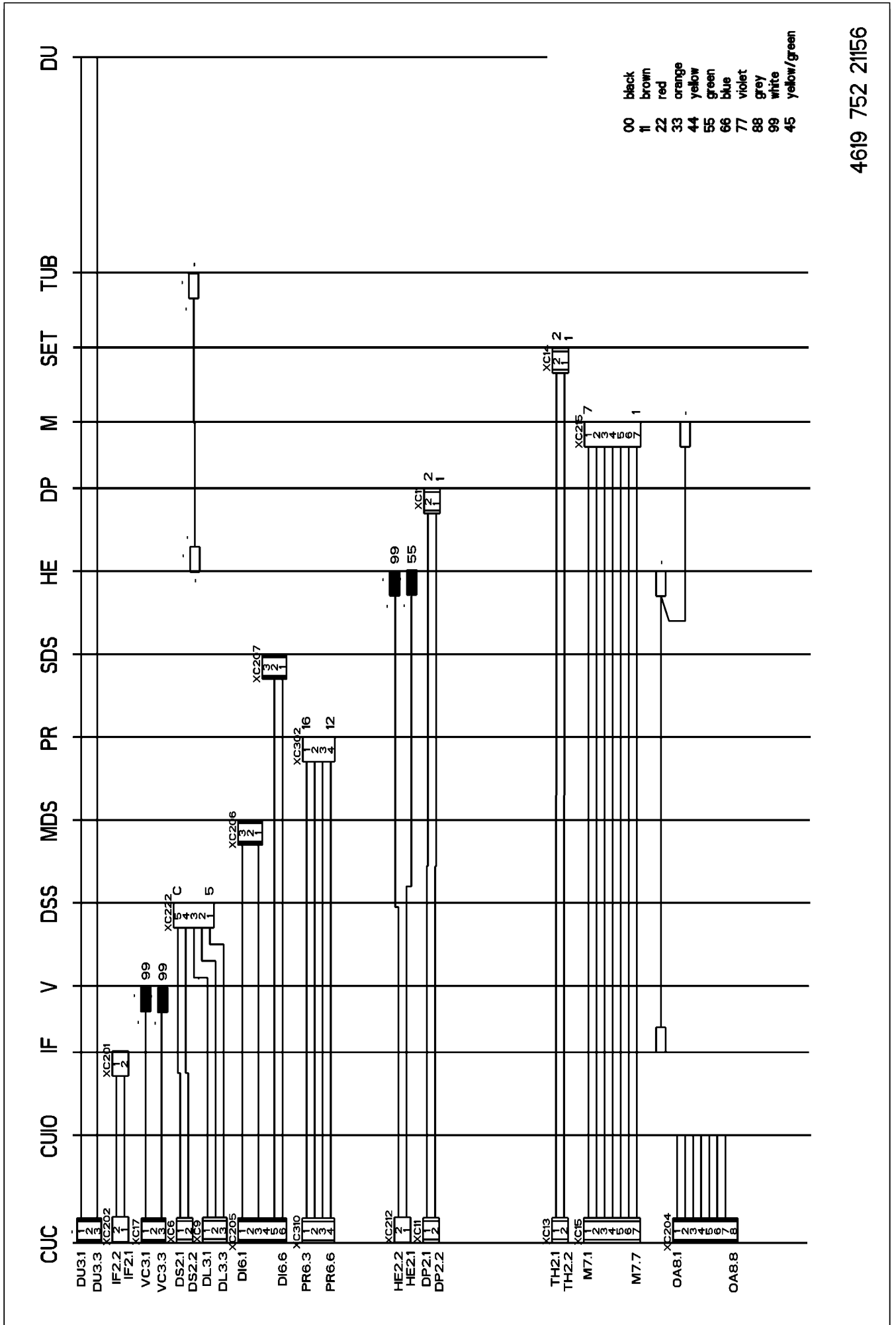
## Exploded view



**Exploded view**

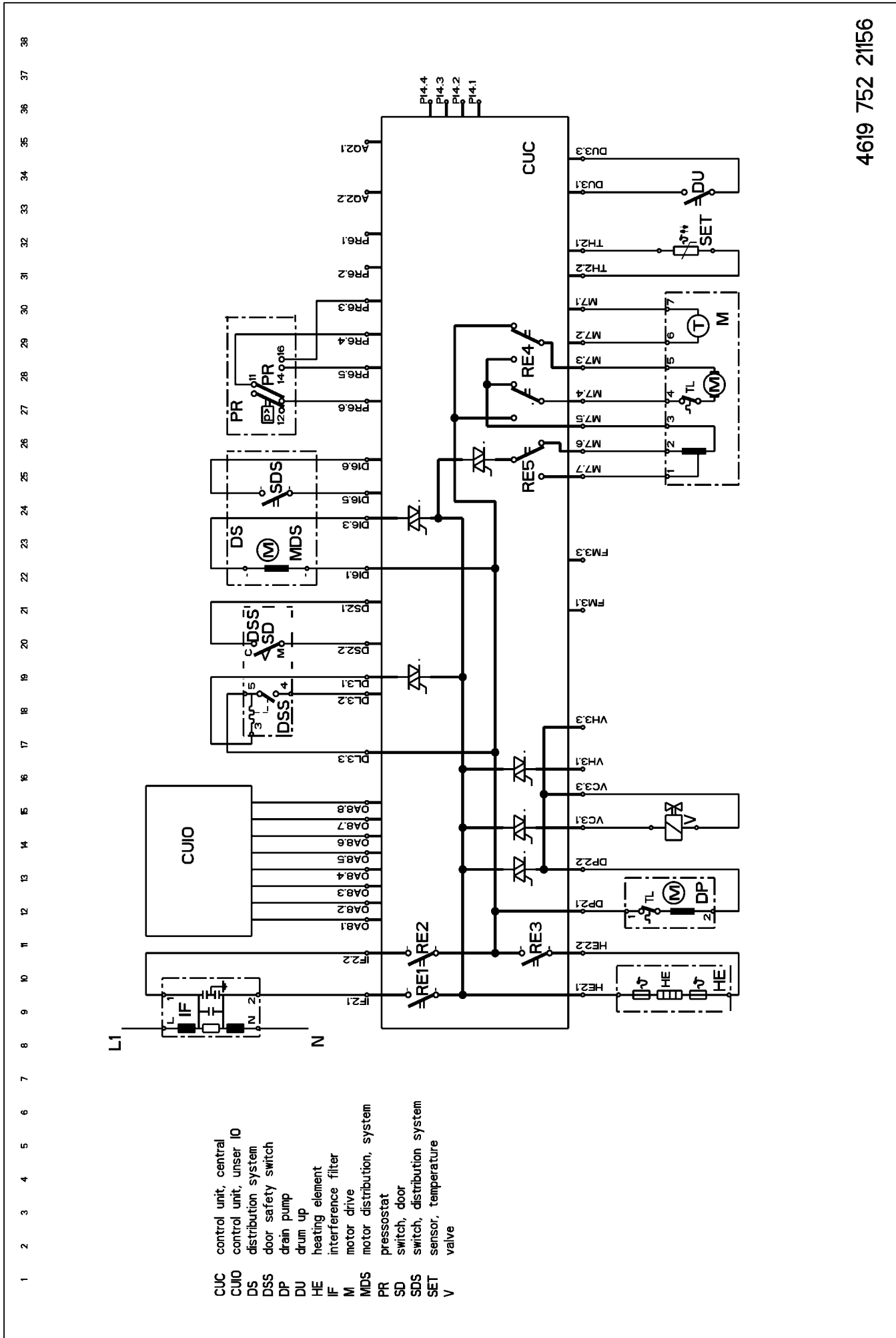


## Wiring diagram



4619 752 21156

**Circuit diagram**



4619 752 21156





**Program chart**

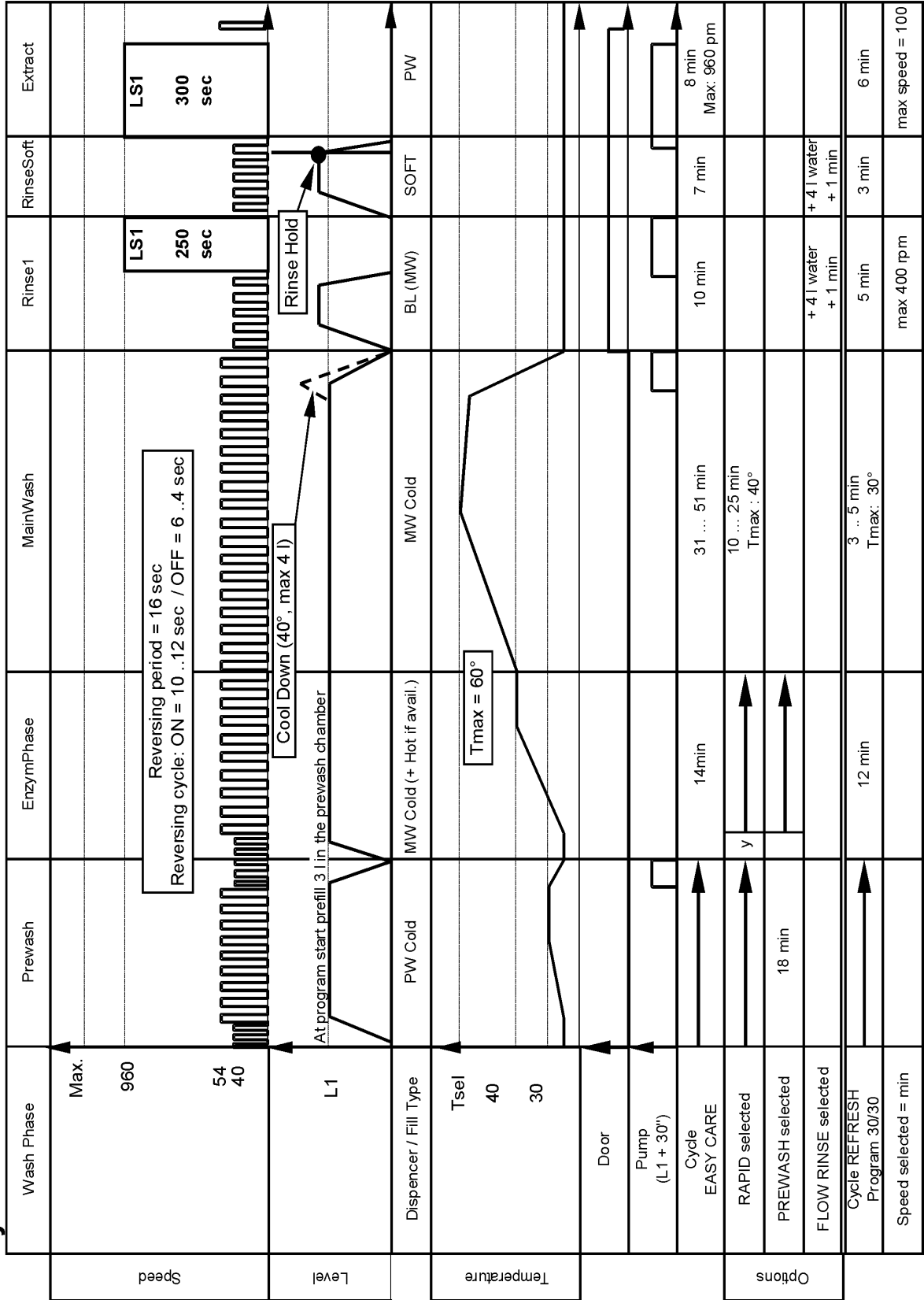
4619 752 23731

Soap dispenser: 4(3) chambers

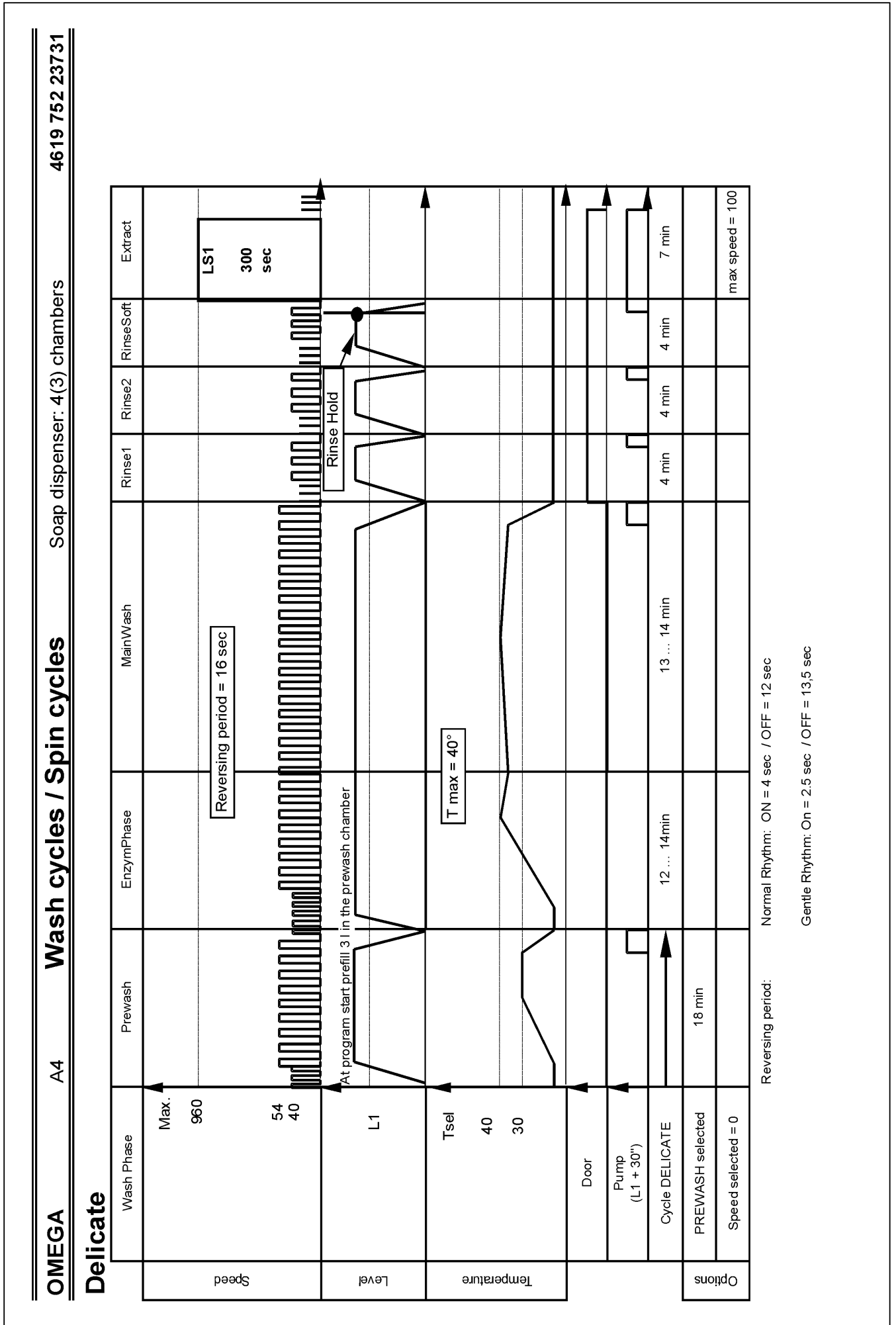
**Wash cycles / Spin cycles**

A4

**Easy Care**



**Program chart**



**Program chart**

**4619 752 23731**

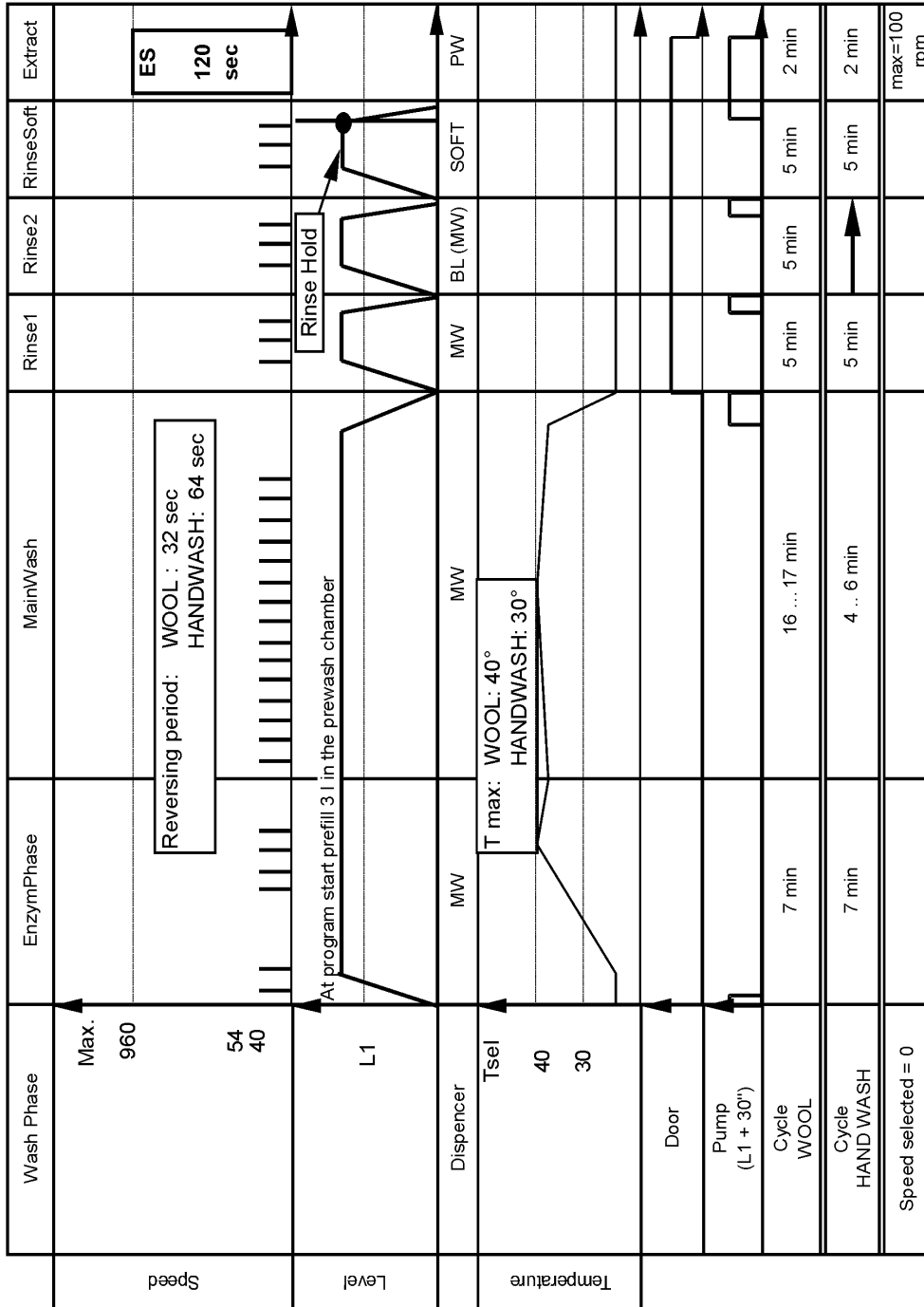
Soap dispenser: 4(3) chambers

**Wash cycles / Spin cycles**

A4

**OMEGA**

**Wool**



Reversing period: ON = 1,5 sec / OFF = 30 ...62 sec

Program chart

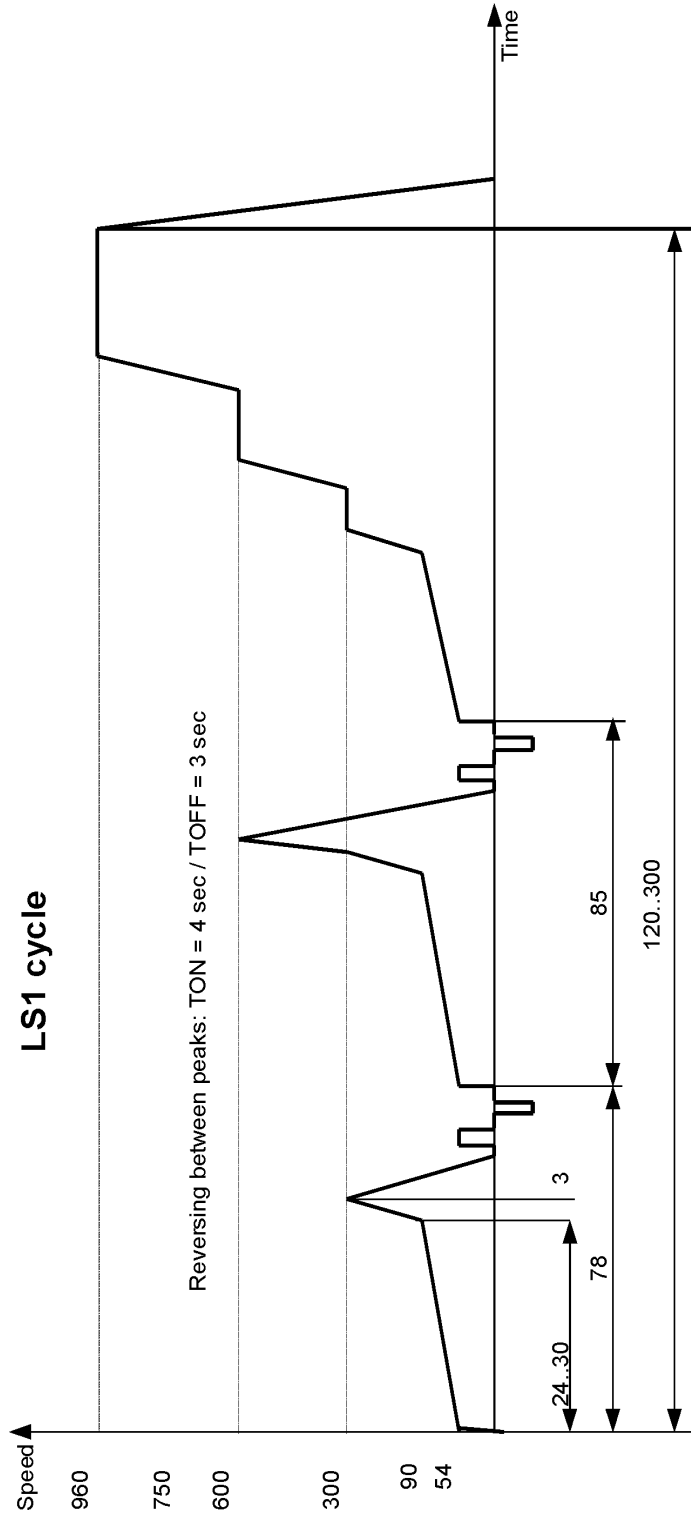
4619 752 23731

Soap dispenser: 4(3) chambers

**Wash cycles / Spin cycles**

A4

**LS cycles**



Nr of repeats in case of unbalance : max. 2 per ramp  
The duration of the spinning is increased with the time necessary for the repetitions

**Program chart**

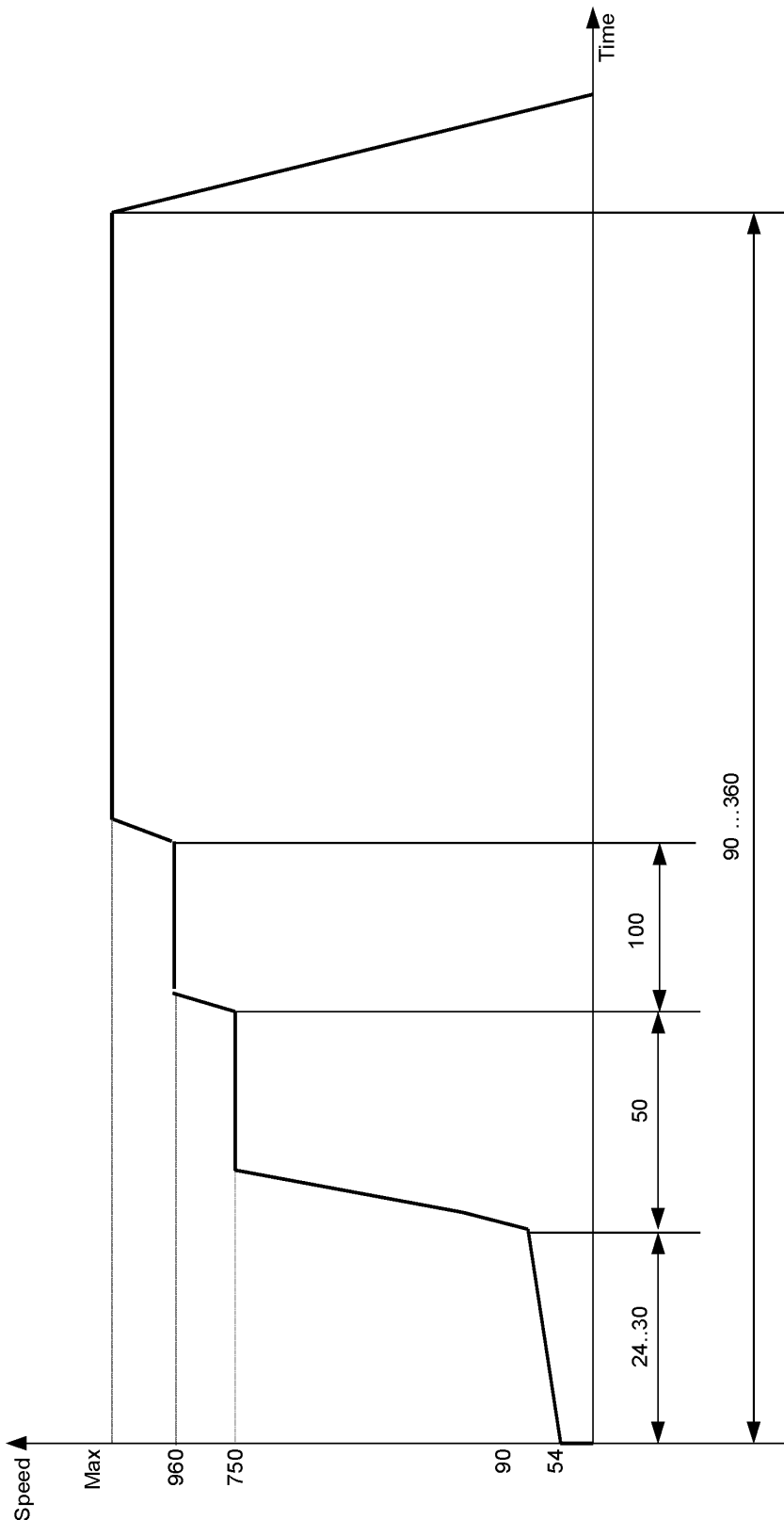
**4619 752 23731**

Soap dispenser: 4(3) chambers

**Wash cycles / Spin cycles**

A4

**ES cycle**



Nr of repeats in case of unbalance : max. 10

Nr of repeats in case of foam: max. 3

In the cycles WOOL and HANDWASH we do not have repeats.

The duration of the spinning is increased with the time necessary for the repetitions

## Text/Legend

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**OMEGA Alliance LCD      Test Program      4619 752 30601**

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- |                                |                               |  |                  |                               |           |          |                                |          |
|--------------------------------|-------------------------------|--|------------------|-------------------------------|-----------|----------|--------------------------------|----------|
| 1                              | → Select program              | Drain  |                  |                               |           |          |                                |          |
| 2                              | → Start test program          | Push prewash option 4 times within 5 seconds   |                  |                               |           |          |                                |          |
| 3                              | → Indication elements         | <table border="0"> <tr> <td>DIGITS remaining</td> <td>Indicate current program step</td> </tr> <tr> <td>LED start</td> <td>FLASHING</td> </tr> <tr> <td>LCD prewash/wash/rinse symbols</td> <td>FLASHING</td> </tr> </table> | DIGITS remaining | Indicate current program step | LED start | FLASHING | LCD prewash/wash/rinse symbols | FLASHING |
| DIGITS remaining               | Indicate current program step |  |                  |                               |           |          |                                |          |
| LED start                      | FLASHING                      |  |                  |                               |           |          |                                |          |
| LCD prewash/wash/rinse symbols | FLASHING                      |  |                  |                               |           |          |                                |          |
| 4                              | → Go to next step             | Push prewash option twice  |                  |                               |           |          |                                |          |
| 5                              | → Finish test program         | Move the program selector from the DRAIN position  |                  |                               |           |          |                                |          |

**Attention: Use the test program only without laundry !**

Remaining Time	Function	Duration	Check	Drum Rhythm
<b>C 00</b>	Lock the door	Until the door is locked	Door Lock Function	
<b>C 01</b>	Fill, current dispenser position	Until L1 is reached	Flowmeter, Valve Cold, Pressostat	
<b>C 02</b>	Move dispenser motor to prewash		Dispenser Motor	
<b>C 03</b>	Fill (cold + hot)	L1 + 30"	Valve Hot (if hot fill appliance)	
<b>C 04</b>	Movement	30"	Motor, Control board	Drum CW 54 rpm
<b>C 05</b>	Wash + Heat	max 50° + 1 min	Heater, NTC, Motor	Drum CW 54 rpm
<b>C 06</b>	Drain	L1	Drain Pump, Motor	Drum CW 54 rpm
<b>C 07</b>	Ramp	15"	Motor, Pump	Drum CCW Ramp 54 - 90 rpm
<b>C 08</b>	Spin (max speed)	240"	Motor, Tapped field, Pump	Drum CCW max speed

If failure occurs:    The test program is stopped  
                                  Failure Code indicated on remaining time digits  
                                  The ERROR state is cancelled if we set the selector to OFF position

**Text/Legend**

**OMEGA Alliance LCD Test Program 4619 752 30601**

<b>Indication</b>	<b>Detected failure</b>	<b>To be checked</b>
<b>F H</b>	No water inlet	Water Tap / Valve / Flowmeter / Pressostat
<b>F A</b>	Aquastop failure	Aquastop Switch
<b>F P</b>	Drain failure	Drain Pump / Pressostat
<b>F 05</b>	NTC failure (SC / OC)	NTC
<b>F 06</b>	Tachometer failure (no motor movement detected)	Motor; Tachometer
<b>F 07</b>	Triac short circuit detection	Control Board, Motor
<b>F 08</b>	Heater failure (no feedback on Heater safety)	Heater , Control Board
<b>F 11</b>	Communication failure	Control Board
<b>F 12</b>	Heater safety failure	Heater, Control Board
<b>F 13</b>	Water distributor failure	Distributor
<b>F 14</b>	EEPROM failure	Control Board
<b>F 15</b>	DrumUp failure	Drum Up Sensor
<b>F 21</b>	Communication failure	Control Board / Display Board (LCD)



Text/Legend

**OMEGA Alliance LCD**

**Terminal Connecting Plan**

**4619 752 30601**

